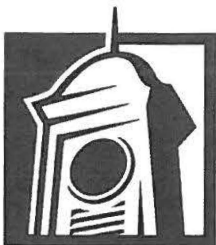


1. College of Engineering & Applied Sciences – Department of Computer and Information Science
 - a. Add the following courses to the course descriptions:
COMS 1011: Programing I Lab;
COMS 3373: Data Center Operations;
COMS 4413: Parallel and Distributed Computing;
COMS 4913: Capstone; and
CSEC 4153: Human Factors in Cybersecurity;
 - b. Change the course number for COMS 2104: Foundations of Computer Programming I, to COMS 1013; and change the title to Programming I; and modify the prerequisites FROM: Prerequisites: MATH 1113 or MATH 1914 or MATH 2223 or MATH 2243 or MATH 2914, and either COMS 1403 and 1411 or ELEG 1011 or consent of instructor; and modify the course description;
 - c. Add the Certificate of Proficiency in Computer Programming; and
 - d. Add the Certificate of Proficiency in Computer Networking;
2. College of Natural and Health Sciences – Department of Mathematics
 - a. Add the Certificate of Proficiency in Applied Statistics.
3. College of Education – Department of Health and Physical Education
 - a. Add the following courses to the course descriptions:
HES 1003: Introduction to Exercise Programming;
HES 2013: Weight Training for Personal Trainer, Sport Coach, and Physical Educator;
HES 2023: Endurance Conditioning;
HES 3013: Coaching Power, Speed and Agility;
HES 4043: Exercise Physiology Lab; and
HES 4053: Biomechanics;
 - b. Delete the following courses from the course descriptions:
PE 2861: Rhythmic Aerobic Activities;
WS 2031: Directing Food, Exercise and Body Composition Programs;
WS 2081: Directing Muscle Fitness Programs; and
WS 2091: Directing Fitness Walking/Jogging Programs;
 - c. Change the title for HLED 1513: Personal Health and Wellness to Lifetime Health and Fitness, TO: Lifetime Health and Fitness;

- d. Change the title for HLED 4403: Nutrition and Physical Fitness to Sport and Exercise Nutrition, TO: Sport and Exercise Nutrition; and modify the Prerequisites FROM: Prerequisites: PE 2653: Anatomy and Physiology, TO: Prerequisites: PE 2653: Anatomy and Physiology, and PE 4033: Exercise Physiology;
- e. Change the title for WS 1002: Physical Wellness and Fitness to Physical Wellness and Fitness, TO: Physical Health and Fitness;
- f. Change the title for WS 2003: Field Based Experience in Wellness to Field Based Experience in Health and Exercise Science, TO: Field Based Experience in Health and Exercise Science;
- g. Change the title for WS 4003: Advanced Professional Seminar to Senior Seminar, TO: Senior Seminar; and modify the Prerequisites FROM: Prerequisites: Completion of all 1000- and 2000-level Wellness Science required classes; level 2 courses require completion of the following with a grade of C or better: PE 1201: Orientation to Health, Physical Education, and Wellness Science, WS 1002: Physical Wellness and Fitness, ENGL 1013: Composition I, ENGL 1023: Composition II, MATH 1113: College Algebra, BIOL 1014: Introduction to Biological Science, and COMM 2173: Business and Professional Speaking, TO: Completion of all 1000- and 2000-level Wellness Science required classes; level 2 courses require completion of the following with a grade of C or better: PE 1201: Orientation to Health, Physical Education, and Wellness Science, WS 1002: Physical Wellness and Fitness, ENGL 1013: Composition I, ENGL 1023: Composition II, MATH 1113: College Algebra, BIOL 1014: Introduction to Biological Science, and COMM 2173: Business and Professional Speaking; and 90 earned hours;
- h. Change the title for WS 4012: Wellness and Fitness Program Management Internship to Health and Exercise Science Internship, TO: Health and Exercise Science Internship;
- i. Change the title for WS 4013: Wellness Science Practicum to Health and Exercise Science Practicum, TO: Wellness Science Practicum;
- j. Modify the Prerequisites for WS 4023: Principles of Strength and Conditioning, FROM: Prerequisites: PE 2653: Anatomy and Physiology, and PE 3661: Laboratory Experiences in Anatomy/Physiology and Kinesiology, TO: PE 2653: Anatomy and Physiology, PE 3661: Laboratory Experiences in Anatomy/Physiology and Kinesiology, and PE 4033: Exercise Physiology;
- k. Change the title for WS 4063: Wellness and Fitness Programming to Health and Fitness Programming, and modify the Prerequisites FROM: Prerequisites: Level 2 courses require completion of

the following with a grade of C or better: PE 1201: Orientation to Health, Physical Education, and Wellness Science, WS 1002: Physical Wellness and Fitness, ENGL 1013: Composition I, ENGL 1023: Composition II, MATH 1113: College Algebra, BIOL 1014: Introduction to Biological Science, and COMM 2173: Business and Professional Speaking, TO: Level 2 courses require completion of the following with a grade of C or better: PE 1201: Orientation to Health, Physical Education, and Wellness Science, WS 1002: Physical Wellness and Fitness, ENGL 1013: Composition I, ENGL 1023: Composition II, MATH 1113: College Algebra, BIOL 1014: Introduction to Biological Science, COMM 2173: Business and Professional Speaking, and PE 4033: Exercise Physiology;

- l. Change the title for WS 4991, 4992, 4993: Special Problems in Wellness Science to Special Problems in Health and Exercise Science, TO: Special Problems in Health and Exercise Science; and
- m. Add the Bachelor of Science Curriculum Health and Exercise Science.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Computer and Information Science	6/15/21

Title	Signature	Date
Department Head Dr. Jerry Wood	<i>Jerry Wood</i>	6/21/21
Dean Dr. Judy Cezeaux	<i>Judy Cezeaux</i>	6/30/2021
Assessment Dr. Christine Austin	<i>Christine Austin</i>	7.9.2021
Registrar Ms. Tammy Weaver	<i>Tammy Weaver</i>	7/17/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs Dr. Barbara Johnson		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
COMS	1011	<input type="radio"/> Spring <input checked="" type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Programming I Lab		

Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)

PROGRAMMING I LAB

Will this course be cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?

If so, list course subject and number. ☐ Yes ☒ No

Is this course repeatable for additional earned hours?

☐ Yes ☒ No

How many total hours?

Grading: ☐ Standard Letter

☒ P/F

☐ Other

Mode of Instruction (check appropriate box):

☐ 01 Lecture

☐ 02 Lecture/Laboratory

☒ 03 Laboratory only

☐ 05 Practice Teaching

☐ 06 Internship/Practicum

☐ 07 Apprenticeship/Externship

☐ 08 Independent Study

☐ 09 Readings

☐ 10 Special Topics

☐ 12 Individual Lessons

☐ 13 Applied Instruction

☐ 16 Studio Course

☐ 17 Dissertation Research

☐ 18 Activity Course

☐ 19 Seminar

☐ 98 Other

Does this course require a fee?

☐ Yes

☒ No

How Much?

Select Fee Type

If selected other list fee type:

☐ Elective

☒ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?

Every semester

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.? **No**

Will this course require a special classroom (computer lab, smart classroom, or laboratory)? **Computer lab**

Answer the following Assessment questions:

a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not applicable**

b. If this course is required for the major or minor, complete the following.

1. Provide the program level learning outcome(s) it addresses.

This course relates to learning outcomes:

- **Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions**
- **Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline**

2. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)

Students will be given a problem and will write a program to solve the problem.

- c. What is the rationale for adding this course? What evidence demonstrates this need?
This course is already in place as part of COMS 2104. We are simply splitting COMS 2104 into two courses (COMS 1013 and 1011) to aid in transfer credit and 2+2 agreements.

For the proposed course, attach a syllabus in Word format that includes: **(Items a. through d. should be entered as they should appear in the catalog)**

- a. Course subject
- b. Course number
- c. Catalog course title
- d. Catalog description
 1. Arkansas Course Transfer System (ACTS) course number, if applicable
 2. Cross-listing
 3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring)
 4. Prerequisites
 5. Co-requisites
 6. Description
 7. Notes (e.g., information not in description such as course may be repeated for credit)
 8. Contact Hours if different than lecture (e.g., Lecture three hours, laboratory three hours)
 9. Fees (e.g., \$36 art fee)
- e. Section for Name of instructor, office hours, contact information (telephone, email)
- f. Text required for course
- g. Bibliography (supplemental reading list)
- h. Justification/rationale for the course
- i. Course objectives
- j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)
- k. Assessment methods (include grading policy with specific equivalents for A, B, C)
- l. Policy on absences, cheating, plagiarism, etc.
- m. Course content (outline of material to be covered in course).

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

Departmental support forms for all changes included in this packet (for all computing degrees) can be found at the back of the packet.

Proposed Sample Syllabus for COMS 1101 Programming I Lab

Department of Computer and Information Science

Course Number: COMS 1011
Course Title: Programming I Lab
Credits: 1 hour credit
Contact hours: 2 hours
Co-requisite: COMS 1013

Course catalog description:

Laboratory for COMS 1013 Programming I course. This course is graded pass/fail.

Instructor: <added when instructor is assigned>

Office hours: <added when instructor is assigned>

Contact info: <added when instructor is assigned>

Required Text:

Student should already have required textbook for the corequisite COMS 1103 course:

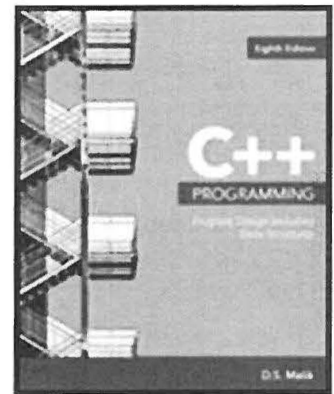
Title: C++ Programming: Program Design Including Data Structures, 8th ed

Author: D. S. Malik

Copyright: Cengage, 2018

ISBN-13: 978-1-337-11756-2

ISBN-10: 1-337-11756-0



Bibliography/Supplemental Readings:

No specified books are required for supplemental readings. However, the instructor may provide supplemental material to support learning.

Course Justification:

This course is a laboratory course that is designed to enhance and support students in COMS 1103 Programming I.

Course Objectives:

This course will support the learning objectives of COMS 1013 by providing hands-on practice:

- Use terms properly when explaining programming concepts.
- Use multiple I/O methods.
- Explain and use each of the following control structures: sequence, selection, and iteration.
- Given an algorithm and/or problem statement, write a well-structured, well-documented program or program segment using standard control structures.
- Define and use functions.
- Declare and manipulate simple strings, character by character.
- Test and troubleshoot programs.

How Course Meets General Education Objectives: n/a

Course Assessment:

This course is pass/fail. If a student attends this lab regularly and passes COMS 1013, they will receive Pass. Poor attendance and/or failing COMS 1013 will result in Fail.

Policies on Absences, Cheating, Plagiarism, etc:

Course policies align with the most recent version of the Student Handbook, which can be found in the information link in Blackboard or at

<https://www.atu.edu/studenthandbook/StudentHandbook-2019.pdf>

Cheating/Plagiarism:

Students are expected to **know** and **understand** all policies found in the Student Handbook. Key policies regarding the **Student Code of Conduct** can be found starting on page 33 through 92.

Any student violating the Academic Integrity Policy for this course will receive an F for the assignment. The student will be required to review the policies and the concept of plagiarism. A second offense will also receive an F on the assignment and the University will be notified. Any further violations will follow the penalties found on page 90 of the Student Handbook.

Attendance:

Regular "attendance" is expected. See Class Absences in the Student Handbook. If a student misses more than 5 lab days, the instructor may decide to remove the student from the course.

Student Accommodations:

You must be registered with Disability Services in order to qualify for special accommodations. (You must register each semester; it doesn't carry over.) In addition, the student should make contact with the instructor to determine which specific accommodations would be appropriate for this particular course.

Course Content:

- Course Intro / Visual Studio
- Ch 1: An Overview of Computers and Programming Languages
- Ch 2: Basic Elements of C++
- Ch 3: Input/Output
- Ch 4: Control Structures I (Selection)
- Ch 5: Control Structures II (Repetition)
- Ch 6: User-Defined Functions
- Ch 7: User-Defined Simple Data Types, Namespaces, and the string Type
- Ch 8: Arrays and Strings



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Computer & Information Science	6/15/21

Title	Signature	Date
Department Head Dr. Jerry Wood	<i>Jerry Wood</i>	6/21/21
Dean Dr. Judy Cezeaux	<i>Judy Cezeaux</i>	6/30/2021
Assessment Dr. Christine Austin	<i>Christine Austin</i>	7.9.2021
Registrar Ms. Tammy Weaver	<i>Tammy Weaver</i>	7/17/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs Dr. Barbara Johnson		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
COMS	3373	<input type="radio"/> Spring <input checked="" type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Data Center Operations		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)		
DATA CENTER OPERATIONS		

Will this course be cross-listed with another existing course? If so, list course subject and number. <input type="radio"/> Yes <input checked="" type="radio"/> No 	
Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog? If so, list course subject and number. <input type="radio"/> Yes <input checked="" type="radio"/> No 	
Is this course repeatable for additional earned hours? <input type="radio"/> Yes <input checked="" type="radio"/> N How many total hours? 	
Grading: <input checked="" type="radio"/> Standard Letter <input type="radio"/> P/F <input type="radio"/> Other 	
Mode of Instruction (check appropriate box): <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="radio"/> 01 Lecture</div> <div style="width: 33%;"><input checked="" type="radio"/> 02 Lecture/Laboratory</div> <div style="width: 33%;"><input type="radio"/> 03 Laboratory only</div> <div style="width: 33%;"><input type="radio"/> 05 Practice Teaching</div> <div style="width: 33%;"><input type="radio"/> 06 Internship/Practicum</div> <div style="width: 33%;"><input type="radio"/> 07 Apprenticeship/Externship</div> <div style="width: 33%;"><input type="radio"/> 08 Independent Study</div> <div style="width: 33%;"><input type="radio"/> 09 Readings</div> <div style="width: 33%;"><input type="radio"/> 10 Special Topics</div> <div style="width: 33%;"><input type="radio"/> 12 Individual Lessons</div> <div style="width: 33%;"><input type="radio"/> 13 Applied Instruction</div> <div style="width: 33%;"><input type="radio"/> 16 Studio Course</div> <div style="width: 33%;"><input type="radio"/> 17 Dissertation Research</div> <div style="width: 33%;"><input type="radio"/> 18 Activity Course</div> <div style="width: 33%;"><input type="radio"/> 19 Seminar</div> <div style="width: 33%;"><input type="radio"/> 98 Other</div> </div>	
Does this course require a fee? <input type="radio"/> Yes <input checked="" type="radio"/> No How Much? Select Fee Type	
If selected other list fee type: 	
<input type="checkbox"/> Elective <input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor (If major or minor course, you must complete the Request for Program Change form to add course to program.)	
If course is required by major/minor, how frequently will course be offered? Spring term	
Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.? No	
Will this course require a special classroom (computer lab, smart classroom, or laboratory)? Yes; computer lab with access to departmental servers	
Answer the following Assessment questions: <div style="margin-left: 20px;"> <p>a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. Not applicable</p> <p>b. If this course is required for the major or minor, complete the following.</p> <div style="margin-left: 20px;"> <p>1. Provide the program level learning outcome(s) it addresses. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline</p> <p>2. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?) Project – students will design a data center</p> </div> <p>c. What is the rationale for adding this course? What evidence demonstrates this need?</p> </div>	

The Advisory Board, consisting of representatives across the state, all agreed that this course was needed because Data Centers are becoming the norm in enterprise businesses.

For the proposed course, attach a syllabus in Word format that includes: **(Items a. through d. should be entered as they should appear in the catalog)**

- a. Course subject
- b. Course number
- c. Catalog course title
- d. Catalog description
 - 1. Arkansas Course Transfer System (ACTS) course number, if applicable
 - 2. Cross-listing
 - 3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring)
 - 4. Prerequisites
 - 5. Co-requisites
 - 6. Description
 - 7. Notes (e.g., information not in description such as course may be repeated for credit)
 - 8. Contact Hours if different than lecture (e.g., Lecture three hours, laboratory three hours)
 - 9. Fees (e.g., \$36 art fee)
- e. Section for Name of instructor, office hours, contact information (telephone, email)
- f. Text required for course
- g. Bibliography (supplemental reading list)
- h. Justification/rationale for the course
- i. Course objectives
- j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)
- k. Assessment methods (include grading policy with specific equivalents for A, B, C)
- l. Policy on absences, cheating, plagiarism, etc.
- m. Course content (outline of material to be covered in course).

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

n/a

Proposed Sample Syllabus for COMS 3373 Data Center Operations

Department of Computer and Information Science

Course Number: COMS 3373
Course Title: Data Center Operations
Credits: 3 hours
Contact hours: 3 hours
Prerequisite: COMS 3363

Course catalog description:

An overview of the construction, design, and utilization of a data center, for IT professionals. The course will start with physical realities of data center design and construction, and proceed to discussion on data center level networking, storage requirements, server utilization, and common administrative tasks in a data center environment.

Instructor: <added when instructor is assigned>
Office hours: <added when instructor is assigned>
Contact info: <added when instructor is assigned>

Required Text:

Datacenter Handbook
Hwaiyu Geng
ISBN: 9781118436639
Wiley Publishing

Bibliography/Supplemental Readings:

Supplemental sources of material will be provided as needed throughout the class, depending on topic progression.

Course Justification:

Data centers are now seen as a key business parameter, and not as an external facility for storage of information and business operation models. They have become critical for the very functioning of a big business enterprise. The growing trend of server consolidation via virtualization into data centers is a driving force for many Fortune 500 companies. This course is an effort to supply needed real-world skills to our graduates so they can further their academic and career options. This course will present students with hands-on learning that focuses on the practical rather than theoretical learning.

Course Objectives:

- Demonstrate knowledge of requirements for modern data centers
- Demonstrate proficiency in designing a data center
- Demonstrate a functional understanding of common tasks performed in a data center environment
- Perform basic functions in a virtualized/cloud environment

How Course Meets General Education Objectives: n/a

Course Assessment:

There will be a variety of graded assessments in this class, which generally fall into the categories of Exams and Projects. The bulk of your grade will come from the Projects category, which will be assignments worked on in and out of class that have a significant time commitment and difficulty level. Homework and Projects will both have completion dates. Late work submitted after the posted due dates for a project will not be accepted. The Exams category will consist of in-class tests and quizzes over covered material. Exams will be given as appropriate for the pacing of the class and will consist of at least a mid-term and final examination. Projects will be weighted to 60% of your final grade, and Exams will

make up the other 40%. If you make an F in either category (<60%), you will fail the class regardless of your calculated average.

Final grades will be awarded, based on the stated weighting, in the normal fashion, i.e. 90-100 is an A, 80-89 is a B, 70-79 is a C, 60-69 is a D, and below 60 is an F.

Policies on Absences, Cheating, Plagiarism, etc:

Course policies align with the most recent version of the Student Handbook, which can be found in the information link in Blackboard or at

<https://www.atu.edu/studenthandbook/StudentHandbook-2019.pdf>

Cheating/Plagiarism:

Students are expected to **know** and **understand** all policies found in the Student Handbook. Key policies regarding the **Student Code of Conduct** can be found starting on page 33 through 92.

Any student violating the Academic Integrity Policy for this course will receive an F for the assignment. The student will be required to review the policies and the concept of plagiarism. A second offense will also receive an F on the assignment and the University will be notified. Any further violations will follow the penalties found on page 90 of the Student Handbook.

Attendance:

Regular "attendance" is expected. See Class Absences in the Student Handbook. If a student misses more than 5 lab days, the instructor may decide to remove the student from the course.

Student Accommodations:

You must be registered with Disability Services in order to qualify for special accommodations. (You must register each semester; it doesn't carry over.) In addition, the student should make contact with the instructor to determine which specific accommodations would be appropriate for this particular course.

Course Content:

- Data center physical design:
 - Location
 - Physical layout for security and accessibility
- Power delivery design:
 - Power requirements for a data center
 - Power distribution infrastructure
 - Generator and battery considerations
 - Calculating needed power for a data center
- Heating and cooling:
 - Basics of data center environmental management
 - Equipment used for heating/cooling a data center
 - Cooling design options
- Networking in a data center:
 - Network design using data center standards (ANSI/TIA 842)
 - Network models used in a data center



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Computer and Information Science	6/15/21

Title	Signature	Date
Department Head Dr. Jerry Wood	<i>Jerry Wood</i>	6/21/21
Dean Dr. Judy Cezeaux	<i>Judy Cezeaux</i>	6/30/2021
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Registrar Ms. Tammy Weaver	<i>T Weaver</i>	7/17/21
Graduate Dean (Graduate Proposals Only)		
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Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
COMS	4413	<input type="radio"/> Spring <input checked="" type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Parallel and Distributed Computing		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)		
PARALLEL/DISTRIBUTED COMPUTING		

Will this course be cross-listed with another existing course? If so, list course subject and number.
☐ Yes ☒ No _____

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?
 If so, list course subject and number. ☐ Yes ☒ No _____

Is this course repeatable for additional earned hours? ☐ Yes ☒ N How many total hours? _____

Grading: ☒ Standard Letter ☐ P/F ☐ Other _____

Mode of Instruction (check appropriate box):

<input checked="" type="radio"/> 01 Lecture	<input type="radio"/> 02 Lecture/Laboratory	<input type="radio"/> 03 Laboratory only
<input type="radio"/> 05 Practice Teaching	<input type="radio"/> 06 Internship/Practicum	<input type="radio"/> 07 Apprenticeship/Externship
<input type="radio"/> 08 Independent Study	<input type="radio"/> 09 Readings	<input type="radio"/> 10 Special Topics
<input type="radio"/> 12 Individual Lessons	<input type="radio"/> 13 Applied Instruction	<input type="radio"/> 16 Studio Course
<input type="radio"/> 17 Dissertation Research	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar <input type="radio"/> 98 Other

Does this course require a fee? ☐ Yes ☒ No How Much? _____ Select Fee Type _____

If selected other list fee type: _____

☐ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?

☐ Spring term

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.?
no

Will this course require a special classroom (computer lab, smart classroom, or laboratory)?
no

Answer the following Assessment questions:

a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable.
ABET requires exposure to "parallel and distributed computing" (identified under directive #5 Curriculum, Item #3) – see following link:
<https://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-computing-programs-2020-2021/>

b. If this course is required for the major or minor, complete the following.

- Provide the program level learning outcome(s) it addresses.
ABET and department learning outcome #2: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline
- Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
Assignment to design a parallel computing environment

- c. What is the rationale for adding this course? What evidence demonstrates this need?
- 1) **ABET identifies the need to teach this course (see item "a" above)**
 - 2) **The changing computing industry warrants the need for this material**

For the proposed course, attach a syllabus in Word format that includes: **(Items a. through d. should be entered as they should appear in the catalog)**

- a. Course subject
- b. Course number
- c. Catalog course title
- d. Catalog description
 - 1. Arkansas Course Transfer System (ACTS) course number, if applicable
 - 2. Cross-listing
 - 3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring)
 - 4. Prerequisites
 - 5. Co-requisites
 - 6. Description
 - 7. Notes (e.g., information not in description such as course may be repeated for credit)
 - 8. Contact Hours if different than lecture (e.g., Lecture three hours, laboratory three hours)
 - 9. Fees (e.g., \$36 art fee)
- e. Section for Name of instructor, office hours, contact information (telephone, email)
- f. Text required for course
- g. Bibliography (supplemental reading list)
- h. Justification/rationale for the course
- i. Course objectives
- j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)
- k. Assessment methods (include grading policy with specific equivalents for A, B, C)
- l. Policy on absences, cheating, plagiarism, etc.
- m. Course content (outline of material to be covered in course).

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

Proposed Sample Syllabus for COMS 4413 Parallel and Distributed Computing

Department of Computer and Information Science

Course Number: COMS 4413
Course Title: Parallel and Distributed Computing
Credits: 3 hours
Contact hours: 3 hours
Prerequisites: COMS 2703 and COMS 3703

Course catalog description:

An introduction to the concepts and design of parallel and distributed computing systems. Topics include data versus control parallelism, shared versus distributed memory, message passing Interface (MPI) and topologies, parallel and distributed algorithms.

Instructor: <added when instructor is assigned>

Office hours: <added when instructor is assigned>

Contact info: <added when instructor is assigned>

Required Text:

Distributed Systems: Principles and Paradigms, A. S. Tanenbaum, M. van Steen
CreateSpace Independent Pub., 2nd edition, 2016, ISBN: 978-1530281756

Bibliography/Supplemental Readings:

Supplemental sources of material will be provided as needed throughout the class, depending on topic progression.

Course Justification:

ABET requires exposure to “parallel and distributed computing” (identified under directive #5 Curriculum, Item #3) – see following link:

<https://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-computing-programs-2020-2021/>

Course Objectives:

- Design and analyze parallel algorithms for a variety of problems and computational models.
- Analyze shared and distributed memory parallel architectures for a given similar algorithm and programming.
- Write portable programs for parallel or distributed architectures using Message Passing Interface (MPI) library.
- Implement the state-of-the-art data-parallel architectures on modern computing systems and applications.

How Course Meets General Education Objectives: n/a

Course Assessment:

There will be a variety of graded assessments in this class, which generally fall into the categories of Exams and Projects. The bulk of your grade will come from the Projects category, which will be assignments worked on in and out of class that have a significant time commitment and difficulty level. Homework and Projects will both have completion dates. Late work submitted after the posted due dates for a project will not be accepted. The Exams category will consist of in-class tests and quizzes over covered material. Exams will be given as appropriate for the pacing of the class and will consist of at least a mid-term and final examination. Projects will be weighted to 60% of your final grade, and Exams will make up the other 40%. If you make an F in either category (<60%), you will fail the class regardless of your calculated average.

Final grades will be awarded, based on the stated weighting, in the normal fashion, i.e. 90-100 is an A, 80-89 is a B, 70-79 is a C, 60-69 is a D, and below 60 is an F.

Policies on Absences, Cheating, Plagiarism, etc:

Course policies align with the most recent version of the Student Handbook, which can be found in the information link in Blackboard or at

<https://www.atu.edu/studenthandbook/StudentHandbook-2019.pdf>

Cheating/Plagiarism:

Students are expected to **know** and **understand** all policies found in the Student Handbook. Key policies regarding the **Student Code of Conduct** can be found starting on page 33 through 92.

Any student violating the Academic Integrity Policy for this course will receive an F for the assignment. The student will be required to review the policies and the concept of plagiarism. A second offense will also receive an F on the assignment and the University will be notified. Any further violations will follow the penalties found on page 90 of the Student Handbook.

Attendance:

Regular "attendance" is expected. See Class Absences in the Student Handbook. If a student misses more than 5 lab days, the instructor may decide to remove the student from the course.

Student Accommodations:

You must be registered with Disability Services in order to qualify for special accommodations. (You must register each semester; it doesn't carry over.) In addition, the student should make contact with the instructor to determine which specific accommodations would be appropriate for this particular course.

Course Content:

- Types of Distributed Systems
- Architecture
- Processes
- Communication
- Naming
- Synchronization
- Consistency and Replication
- Fault Tolerance
- Security
- Distributed Object-Based Systems
- Distributed File Systems
- Distributed Web-Based Systems
- Distributed Coordination-Based Systems



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Computer and Information Science	6/15/21

Title	Signature	Date
Department Head Dr. Jerry Wood	<i>Jerry Wood</i>	6/21/21
Dean Dr. Judy Cezeaux	<i>Judy Cezeaux</i>	6/30/2021
Assessment Dr. Christine Austin	<i>Christine Austin</i>	7.9.2021
Registrar Ms. Tammy Weaver	<i>Tammy Weaver</i>	7/17/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs Dr. Barbara Johnson		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL) COMS	Course Number: (e.g., 1003) 4913	Effective Term: <input type="radio"/> Spring <input checked="" type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below) Capstone		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript) CAPSTONE		

Will this course be cross-listed with another existing course? If so, list course subject and number.
☐ Yes ☒ No _____

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?
 If so, list course subject and number. ☐ Yes ☒ No _____

Is this course repeatable for additional earned hours? ☐ Yes ☒ N How many total hours? _____

Grading: ☒ Standard Letter ☐ P/F ☐ Other _____

Mode of Instruction (check appropriate box):

<input checked="" type="radio"/> 01 Lecture	<input type="radio"/> 02 Lecture/Laboratory	<input type="radio"/> 03 Laboratory only
<input type="radio"/> 05 Practice Teaching	<input type="radio"/> 06 Internship/Practicum	<input type="radio"/> 07 Apprenticeship/Externship
<input type="radio"/> 08 Independent Study	<input type="radio"/> 09 Readings	<input type="radio"/> 10 Special Topics
<input type="radio"/> 12 Individual Lessons	<input type="radio"/> 13 Applied Instruction	<input type="radio"/> 16 Studio Course
<input type="radio"/> 17 Dissertation Research	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar <input type="radio"/> 98 Other

Does this course require a fee? ☐ Yes ☒ No How Much? _____ Select Fee Type _____

If selected other list fee type: _____

☒ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?

 Spring

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.? **No**

Will this course require a special classroom (computer lab, smart classroom, or laboratory)? **No**

Answer the following Assessment questions:

a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not applicable**

b. If this course is required for the major or minor, complete the following.

- Provide the program level learning outcome(s) it addresses.
 - Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions
 - Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline
 - Communicate effectively in a variety of professional contexts
 - Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
 - Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline

- Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation and administration of computing-based systems
Because this is a capstone course, students will be applying all they have learned throughout their degree as they work in teams to plan, design, create, and implement a computing solution for either an actual or fictitious organization.

2. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)

Team-based project

- c. What is the rationale for adding this course? What evidence demonstrates this need?

After a review of current practices in the Information Technology arena, and after a meeting with the department's Advisory Board, the department came to a consensus that to better prepare our students for the work force, they would greatly benefit from a dedicated capstone course.

For the proposed course, attach a syllabus in Word format that includes: **(Items a. through d. should be entered as they should appear in the catalog)**

- a. Course subject
- b. Course number
- c. Catalog course title
- d. Catalog description
 1. Arkansas Course Transfer System (ACTS) course number, if applicable
 2. Cross-listing
 3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring)
 4. Prerequisites
 5. Co-requisites
 6. Description
 7. Notes (e.g., information not in description such as course may be repeated for credit)
 8. Contact Hours if different than lecture (e.g., Lecture three hours, laboratory three hours)
 9. Fees (e.g., \$36 art fee)
- e. Section for Name of instructor, office hours, contact information (telephone, email)
- f. Text required for course
- g. Bibliography (supplemental reading list)
- h. Justification/rationale for the course
- i. Course objectives
- j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)
- k. Assessment methods (include grading policy with specific equivalents for A, B, C)
- l. Policy on absences, cheating, plagiarism, etc.
- m. Course content (outline of material to be covered in course).

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

n/a

Proposed Sample Syllabus for COMS 4913 Capstone

Department of Computer and Information Science

Course Number: COMS 4913
Course Title: Capstone
Credits: 3 hours
Contact hours: 3 hours
Prerequisites: COMS 4063

Course catalog description:

Skills and knowledge gained throughout the degree culminate in a team-based integrative and intensive learning project. Students will develop a strategic plan and implement a computing-related project for an organization.

Instructor: <added when instructor is assigned>

Office hours: <added when instructor is assigned>

Contact info: <added when instructor is assigned>

Required Text:

none

Bibliography/Supplemental Readings:

No specified books are required for supplemental readings. However, the instructor may provide supplemental material to support learning.

Course Justification:

This course will allow students to apply the theoretical knowledge acquired during their program of study to a real-world team-based project involving actual issues in the computing field.

Course Objectives:

- Function effectively as a member or leader of a team engaged in activities appropriate to the project
- Evaluate the needs of the end user, determine what currently exists, and develop a solution to problems
- Manage and apply the concepts, tools, procedures, and techniques involved in the development of a computing system
- Design, development, and implement (if desired) computer systems of varying complexity to satisfy customer needs
- Demonstrate the skills required to learn new programming languages and new platforms as necessary for project completion
- Communicate effectively with all stakeholders

How Course Meets General Education Objectives: n/a

Course Assessment:

- Proposal: 5%
- Weekly Reports: 15%
- External Evaluation: 5%
- Documentation: 15%
- Presentations: 20%
- Client Evaluation: 10%
- Holistic Evaluation of Project: 30% - this will include several criteria such as tools learned, team work, comprehensiveness, look and feel of the application developed etc.

Grading:
A 90-100%
B 80-89%
C 70-79%
D 60-69%
F Below 60%

Policies on Absences, Cheating, Plagiarism, etc:

Course policies align with the most recent version of the Student Handbook, which can be found in the information link in Blackboard or at

<https://www.atu.edu/studenthandbook/StudentHandbook-2019.pdf>

Cheating/Plagiarism:

Students are expected to **know** and **understand** all policies found in the Student Handbook. Key policies regarding the **Student Code of Conduct** can be found starting on page 33 through 92.

Any student violating the Academic Integrity Policy for this course will receive an F for the assignment. The student will be required to review the policies and the concept of plagiarism. A second offense will also receive an F on the assignment and the University will be notified. Any further violations will follow the penalties found on page 90 of the Student Handbook.

Attendance:

Regular "attendance" is expected. See Class Absences in the Student Handbook. If a student misses more than 5 lab days, the instructor may decide to remove the student from the course.

Student Accommodations:

You must be registered with Disability Services in order to qualify for special accommodations. (You must register each semester; it doesn't carry over.) In addition, the student should make contact with the instructor to determine which specific accommodations would be appropriate for this particular course.

Course Content:

Week 1	Introduction to course, Syllabus, Expectations
Week 2	Discussion of possible final projects & creation of teams
Week 3	Final projects discussion and finalize topics
Weeks 4-7	Work on final project as a team
Week 8	Progress check and discussion of progress on final project
Weeks 9-12	Work on final project as a team
Weeks 13-14	Continue working on final project; teams meet with instructor to discuss project
Week 15	Final Project presentations



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Computer & Information Science	6/15/21

Title	Signature	Date
Department Head Dr. Jerry Wood	<i>Jerry Wood</i>	6/21/21
Dean Dr. Judy Cezeaux	<i>Judy Cezeaux</i>	6/30/2021
Assessment Dr. Christine Austin	<i>Christine Austin</i>	7.9.2021
Registrar Ms. Tammy Weaver	<i>Tammy Weaver</i>	7/17/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs Dr. Barbara Johnson		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL) CSEC	Course Number: (e.g., 1003) 4153	Effective Term: <input type="radio"/> Spring <input checked="" type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below) Human Factors in Cybersecurity		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript) HUMAN FACTORS IN CYBERSECURITY		

Will this course be cross-listed with another existing course? If so, list course subject and number.
☐ Yes ☒ No

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?
 If so, list course subject and number. ☐ Yes ☒ No

Is this course repeatable for additional earned hours? ☐ Yes ☒ N How many total hours?

Grading: ☒ Standard Letter ☐ P/F ☐ Other

Mode of Instruction (check appropriate box):

<input checked="" type="radio"/> 01 Lecture	<input type="radio"/> 02 Lecture/Laboratory	<input type="radio"/> 03 Laboratory only
<input type="radio"/> 05 Practice Teaching	<input type="radio"/> 06 Internship/Practicum	<input type="radio"/> 07 Apprenticeship/Externship
<input type="radio"/> 08 Independent Study	<input type="radio"/> 09 Readings	<input type="radio"/> 10 Special Topics
<input type="radio"/> 12 Individual Lessons	<input type="radio"/> 13 Applied Instruction	<input type="radio"/> 16 Studio Course
<input type="radio"/> 17 Dissertation Research	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar <input type="radio"/> 98 Other

Does this course require a fee? ☐ Yes ☒ No How Much? Select Fee Type

If selected other list fee type:

☐ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?
 Yearly, Fall only

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.?

Will this course require a special classroom (computer lab, smart classroom, or laboratory)?
 No

Answer the following Assessment questions:

- If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable.
 - Course is responsive to ABET accreditation standards for CSEC programs 5.2.f "Human Security: the study of human behavior in the context of data protection, privacy, and threat mitigation."
- If this course is required for the major or minor, complete the following.
 - Provide the program level learning outcome(s) it addresses.
 - ABET student outcome 4: Recognize professional responsibilities and make informed judgements in computing practice based on legal and ethical principles.
 - ABET student outcome 6: Apply security principles and practices to maintain operations in the presence of risks and threats.
 - Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)

- Students will complete a final project involving analyzing the current policies and security posture of an organization and designing new or updated policies and training programs to remediate identified vulnerabilities.

c. What is the rationale for adding this course? What evidence demonstrates this need?

- ABET accreditation explicitly calls for the inclusion of a course of this nature. Existent courses in the program deal with the technical aspects of Cybersecurity, leaving a gap in the consideration of how employees interact with and affect technological controls. Similar classes exist in the UALR curriculum (CSEC 4314 Human Behavior and Privacy) and UCA curriculum (MIS 4361 Cybersecurity Governance and Policy) in state, as well as in many other CSEC programs outside the immediate region.

For the proposed course, attach a syllabus in Word format that includes: **(Items a. through d. should be entered as they should appear in the catalog)**

- a. Course subject
- b. Course number
- c. Catalog course title
- d. Catalog description
 - 1. Arkansas Course Transfer System (ACTS) course number, if applicable
 - 2. Cross-listing
 - 3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring)
 - 4. Prerequisites
 - 5. Co-requisites
 - 6. Description
 - 7. Notes (e.g., information not in description such as course may be repeated for credit)
 - 8. Contact Hours if different than lecture (e.g., Lecture three hours, laboratory three hours)
 - 9. Fees (e.g., \$36 art fee)
- e. Section for Name of instructor, office hours, contact information (telephone, email)
- f. Text required for course
- g. Bibliography (supplemental reading list)
- h. Justification/rationale for the course
- i. Course objectives
- j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)
- k. Assessment methods (include grading policy with specific equivalents for A, B, C)
- l. Policy on absences, cheating, plagiarism, etc.
- m. Course content (outline of material to be covered in course).

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

Course Number	CSEC 4153
Course Name	Human Factors in Cybersecurity
Section	001
Description	<p>This course will address the interaction of human behavior, cybersecurity controls, and the resulting security and privacy concerns. Topics covered in the class include:</p> <ul style="list-style-type: none"> • Development and analysis of information security policies for user governance. • Ethical considerations of the impact of security policies on employee privacy. • Security training and compliance for employees.
Co-Requisite(s)	None
Prerequisite(s)	CSEC 4153 Human Factors in Cybersecurity
Credit hours	3
Semester offered	Fall
General Education	This course cannot be used to satisfy the general education curriculum.
New	X
Core	X
Major	X
Courses that satisfy Gen Ed requirements	None
Faculty who can teach this course	<ul style="list-style-type: none"> • Dr. Nan Harrell – <i>Ph.D. Information Systems with an emphasis in Information Security</i> • Dr. Johnette Moody – <i>DBA Business with emphasis in Information Systems</i> • Mr. Lucas Moody – <i>ABD Cybersecurity and Information Assurance; MS IT</i> • Dr. Jerry Wood – <i>Ph.D. Information Assurance</i>
Distance Ed class	No

Syllabus

Department of Computer & Information Science

CSEC 4153 **Human Factors in Cybersecurity**

Section # 001

OFFERED Fall

PRE-REQUISITE CSEC 3223 Programming Embedded Systems

CO-REQUISITES None

DESCRIPTION This course will address the interaction of human behavior, cybersecurity controls, and the resulting security and privacy concerns. Topics covered in the class include:

- Development and analysis of information security policies for user governance.
- Ethical considerations of the impact of security policies on employee privacy.
- Security training and compliance for employees.

NOTES None

COURSE **Office:** **Phone:** **Email:**

INSTRUCTOR To be determined by the faculty of record for this course

OFFICE HOURS To be determined by the faculty of record for this course

TEXTBOOK *Building a Cybersecurity Culture in Organizations: How to Bridge the Gap Between People and Digital Technology*; Isabella Corradini; Springer Publishing; ISBN: 978-3030439989

BIBLIOGRAPHY There is **no** REQUIRED supplemental reading list for this course.

JUSTIFICATION The students should understand the interplay between human behavior, security policies, and technical controls and the resulting security of an organization.

OBJECTIVES After completing this course, the learner will be able to:

- demonstrate an ability to analyze, design, and develop information security controls for employees.
- understand and explain the importance of establishing a culture of cybersecurity within an organization.
- analyze and design cybersecurity training for organizational employees.

COURSE TOPICS

Topics include:

- digital landscape of modern business practice.
- Personality traits and security perceptions in employees.
- Social engineering and its effects on cybersecurity.
- Developing a culture of cybersecurity in employees.
- Communication effectiveness for cybersecurity objectives.
- Cybersecurity training for employees.

**GENERAL
EDUCATION
REQUIREMENTS**

This course does not meet any of the General Education requirements.

ASSESSMENT

The final grade will consist of 100 percentage points, with the following breakdown:

Homework, Labs, & Assignments	20%
Exams, including Final Exam	80%
<i>Total</i>	<i>100%</i>

The following percentage table will be used to assign scores:

90-100% - A 80-89% - B 70-79% - C 60-69% - D Below 60% - F

ATTENDANCE

The policy of the University in regard to class absences may be stated as the considered belief that regular class attendance is essential to the maximum growth and development of the student, and that students, in their own interest, are therefore responsible for attending all classes for which they are enrolled.

**COURSE
of others.
CONDUCT**

Respect your peers. Students are expected to respect the rights

Students must conduct themselves in a professional manner, and maintain an atmosphere that does not distract other students from learning. Students whose behavior the instructor deems to be disruptive will be asked to leave. This includes, but is not limited to, cell phones ringing, talking on a cell phone or text messaging, use of a laptop computer in a distracting manner, consuming food or beverage, and/or having conversations with other students that are not part of the class instruction. If for some reason you feel that one or more of these items are necessary, you must get express permission from the instructor beforehand. A student who is requested to leave will not be excused from missing any class or class activities.

**PLAGIARISM &
are
CHEATING**

Refer to the rules set forth in the student handbook. Students

expected to do their **OWN** work. **Consider your actions carefully:** there will be no tolerance for conduct that even gives the appearance of cheating. Any questions regarding the policy of cheating or conduct in this class should be clarified with the instructor. Cheating will result in a negative score (deduction from the final course grade) and will be reported to appropriate governing bodies, e.g. the CIS ethics committee.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Computer and Information Science	6/15/21

Title	Signature	Date
Department Head Dr. Jerry Wood	<i>Jerry Wood</i>	6/21/21
Dean Dr. Judy Cezeaux	<i>Judy Cezeaux</i>	6/30/2021
Assessment Dr. Christine Austin	<i>Christine Austin</i>	7.19.21
Registrar Mrs. Tammy Weaver	<i>Tammy Weaver</i>	8/2/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs Dr. Barbara Johnson		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
COMS	2104
Official Catalog Title:	
Foundations of Computer Programming I	

Is this course cross-listed with another existing course? If so, list course subject and number.

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<div></div>		
Request to change: (check appropriate box):		
<input checked="" type="checkbox"/> Course Number	<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Course Description
<input type="checkbox"/> Cross-Listing	<input checked="" type="checkbox"/> Prerequisite	<input checked="" type="checkbox"/> Co-requisite
<input type="checkbox"/> Grading	<input type="checkbox"/> Fee	
<input type="checkbox"/> Other <div style="border: 1px solid black; width: 150px; height: 15px; display: inline-block;"></div>		
NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.		
New Course Number: (e.g., 1003)		
<div style="border: 1px solid black; padding: 2px;">1013</div>		
New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
<div style="border: 1px solid black; padding: 2px;">Programming I</div>		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)		
<div style="border: 1px solid black; padding: 2px;">PROGRAMMING I</div>		
New Course Description:		
<p>An introduction to the foundational concepts of programming using structured programming concepts of C++ as an implementation tool. Topics include sequential, selection, and iterative control structures, functions, strings, and arrays.</p> <p>(Also please remove note in old catalog description → Note: Cybersecurity majors are not required to complete the COMS 1403 and 1411 prerequisites.)</p>		
New Cross List:		
<input type="checkbox"/> Adding Cross-Listing	<input type="checkbox"/> Changing Cross-Listing	<input type="checkbox"/> Deleting Cross-Listing
If adding or changing cross-listing, indicate course subject and number <div style="border: 1px solid black; width: 150px; height: 15px; display: inline-block;"></div>		
New Prerequisite (list all, as you want them to appear in the catalog):		
MATH 1113 or higher with a grade of C or better		
New Co-requisite (list all, as you want them to appear in the catalog):		
COMS 1011		
<input type="checkbox"/> Elective	<input checked="" type="checkbox"/> Major	<input type="checkbox"/> Minor
(If major or minor course, you must complete the Request for Program Change form to add course to program.)		
Answer the following Assessment questions:		
a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. n/a		
b. If this course is required for the major or minor, complete the following. <div style="margin-left: 20px;"> a. Provide the <u>program level learning outcome(s)</u> it addresses. <ul style="list-style-type: none"> Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline Communicate effectively in a variety of professional contexts </div>		

b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)

Exam question, assignment, program

c. What is the rationale for ~~adding~~ changing this course? What evidence supports this action?

Changing the 4-hour course to a 3-hour course with a 1-hour lab will allow for easier transfers from other institutions and for 2+2 agreements with institutions who only offer a 3-hour programming course at this level.

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

Departmental support forms for all changes included in this packet (for all computing degrees) can be found at the back of the packet.

Arkansas Tech University
DEPARTMENTAL SUPPORT FORM

This form must be completed for every department affected by the course change.

Department Affected: Art • Bachelor of Fine Arts in Game Interactive Media Design	This department <input checked="checked" type="checkbox"/> supports <input type="checkbox"/> does not support the change.
Comments: 1. COMS 1403/1411 a. no longer required for any computing degrees and no longer a prerequisite for any other COMS course b. COMS 1403 - will teach as a support course only (if you need it for your degrees, please communicate that with us) c. COMS 1411 will no longer be taught 2. COMS 2104 Foundations of Computer Programming I a. Splitting into 3-hour lecture and 1-hour lab: COMS 1013 and COMS 1011 (coreqs for each other) b. COMS 1013 name → Programming I c. COMS 1011 name → Programming I lab d. Modifying course prereqs to → MATH 1113 or higher with a grade of C or better 3. COMS 2203 Foundations of Computer Programming II a. Name change to → Programming II b. Modifying course prereqs to → COMS 1013 with a grade of C or better	

Department Head Signature: 

Date: 5/24/2021

Arkansas Tech University

DEPARTMENTAL SUPPORT FORM

This form must be completed for every department affected by the course change.

Department Affected: Department of Management & Marketing <ul style="list-style-type: none"> Bachelor of Science in Business Administration in Business Data Analytics Management Major with Track in Entrepreneurship Marketing Major with Track in Digital Marketing Marketing Major with Track in Marketing Strategy 	This department <input checked="" type="checkbox"/> supports <input type="checkbox"/> does not support the change.
Comments – the changes below affect one or more of the degrees listed above: <ol style="list-style-type: none"> 1. COMS 1333 Web Publishing I <ol style="list-style-type: none"> a. Name change to → Web and Mobile Technologies b. Removing prereqs of COMS 1003 or BUAD 2003 (course will have no prereqs) c. Course will now include a module on mobile technologies 2. COMS 1403/1411 <ol style="list-style-type: none"> a. no longer required for any computing degrees and no longer a prerequisite for any other COMS course b. COMS 1403 - will teach as a support course only (if you need it for your degrees, please communicate that with us) c. COMS 1411 will no longer be taught 3. COMS 2104 Foundations of Computer Programming I <ol style="list-style-type: none"> a. Splitting into 3-hour lecture and 1-hour lab: COMS 1013 and COMS 1011 (coreqs for each other) b. COMS 1013 name → Programming I c. COMS 1011 name → Programming I lab d. Modifying course prereqs to → MATH 1113 or higher with a grade of C or better 4. COMS 2203 Foundations of Computer Programming II <ol style="list-style-type: none"> a. Name change to → Programming II b. Modifying course prereqs to → COMS 1013 with a grade of C or better 5. COMS 2333 Web Publishing II will no longer be offered 	

Department Head Signature: Kevin Mason

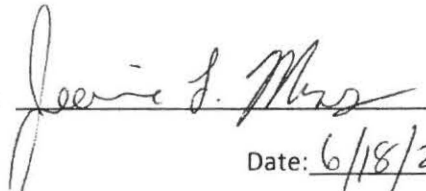
Date: 05/21/2021

Arkansas Tech University
DEPARTMENTAL SUPPORT FORM

This form must be completed for every department affected by the course change.

Department Affected: Mathematics	This department <input checked="" type="checkbox"/> supports <input type="checkbox"/> does not support the change.
Comments: The following computing degrees will now require MATH 2703 Discrete Math: <ul style="list-style-type: none">• Bachelor of Science in Computer Science• Bachelor of Science in Computer Science Education• Bachelor of Science in Cybersecurity• Bachelor of Science in Information Technology The course was added to Fall, sophomore year for each of these programs. Additional sections of MATH 2703 will be needed to accommodate these additional students.	

Department Head Signature: _____


Date: 6/18/21

Arkansas Tech University
DEPARTMENTAL SUPPORT FORM

This form must be completed for every department affected by the course change.

<p>Department Affected: Electrical Engineering</p> <p>Bachelor of Science in Computer Engineering Bachelor of Science in Electrical Engineering Electrical Engineering with Biomedical Option</p>	<p>This department <input checked="" type="checkbox"/> supports <input type="checkbox"/> does not support the change.</p>
<p>Comments - the changes below affect one or more of the degrees listed above:</p> <ol style="list-style-type: none">1. COMS 2104 Foundations of Computer Programming I<ol style="list-style-type: none">a. Splitting into 3-hour lecture and 1-hour lab: COMS 1013 and COMS 1011 (coreqs for each other)b. COMS 1013 name → Programming Ic. COMS 1011 name → Programming I labd. Modifying course prereqs to → MATH 1113 or higher with a grade of C or better2. COMS 2203 Foundations of Computer Programming II<ol style="list-style-type: none">a. Name change to → Programming IIb. Modifying course prereqs to → COMS 1013 with a grade of C or better3. COMS 2213 Data Structures<ol style="list-style-type: none">a. Modifying course prereqs to → MATH 2703, and COMS 2203 with a grade of C or better4. COMS 2223 Computer Organization and Programming - only offered in Spring5. COMS 2903 Discrete Structures for Technical Majors will no longer be taught; require MATH 2703 Discrete Math instead6. COMS 3703 Operating Systems<ol style="list-style-type: none">a. Offered: Fall (course was previously offered in Spring term)b. Modified prerequisites: COMS 2213 and COMS 2223 (removed CSEC 3113)	

Department Head Signature: _____



Date: 5/22/2021

Arkansas Tech University

DEPARTMENTAL SUPPORT FORM

This form must be completed for every department affected by the course change.

Department Affected: Mathematics <ul style="list-style-type: none"> Bachelor of Science in Applied Statistics, Actuarial Science Option Bachelor of Science in Applied Statistics, Data Science Option 	This department <input checked="" type="checkbox"/> supports <input type="checkbox"/> does not support the change.
Comments: Catalog currently states: Students majoring in mathematics are encouraged to use their elective hours to complete a second major, or at least a concentration of 18 hours or more, in the field of their choice. For example, students interested in computer science are advised to complete the following courses: <ul style="list-style-type: none"> <u>COMS 1403 Orientation to Computing Information, and Technology.</u> <u>COMS 2003 Microcomputer Applications</u> <u>COMS 2104 Foundations of Computer Programming I</u> <u>COMS 2203 Foundations of Computer Programming II</u> <u>COMS 2213 Data Structures</u> <p>and two additional courses selected from <u>COMS 3213 Advanced Data Structures and Algorithm Design</u>, <u>COMS 3503 Visual Programming</u>, <u>COMS 3803 Computer Applications in Accounting and Business</u>, and <u>COMS 4203 Database Concepts</u>.</p>	
Courses to consider modifying/deleting: <ul style="list-style-type: none"> COMS 1403 and COMS 2003 - will teach as support courses only (if you need it for your degrees, please communicate that with us); they are no longer required for any computing degree COMS 3803 has not been taught in several years COMS 4203 was replaced with COMS 3233 several years ago COMS 3503 is an elective course and will only be taught Spring of even years 	
Other courses that are being modified: <ol style="list-style-type: none"> COMS 2104 Foundations of Computer Programming I <ol style="list-style-type: none"> Splitting into 3-hour lecture and 1-hour lab: COMS 1013 and COMS 1011 (coreqs for each other) COMS 1013 name → Programming I COMS 1011 name → Programming I lab Modifying course prereqs to → MATH 1113 or higher with a grade of C or better COMS 2203 Foundations of Computer Programming II <ol style="list-style-type: none"> Name change to → Programming II Modifying course prereqs to → COMS 1013 with a grade of C or better 	

3. COMS 2213 Data Structures
 - a. Modifying course prereqs to → MATH 2703, and COMS 2203 with a grade of C or better
4. COMS 2803 Programming in C
 - a. Removing co-req: MATH 1113
 - b. Adding prerequisite: MATH 1113 or higher with a grade of C or better
5. COMS 3213 Advanced Data Structures and Algorithm Design
 - a. Name change to → Algorithm Design and Analysis
 - b. Offered: Fall
 - c. Prerequisite: COMS 2213

Minor in Mathematics

For several majors, a minor in mathematics is a natural and popular acquisition. The minor in mathematics requires 20 hours of courses:

- MATH 2703 Discrete Mathematics OR COMS 2903 Discrete Structures for Technical Majors, and COMS 3913 Advanced Discrete Structures
- MATH 2914 Calculus I
- MATH 2924 Calculus II

MATH 4203: Advanced Logic

Cross-listed: PHIL 4103

Prerequisites: COMS 2903 or MATH 2703 or PHIL 3103

A study of selected topics in advanced logic. Emphasis will be on semantic tableaux, logicism, theories of completeness and logical foundations mathematics.

COMS 2903 and 3913 are being removed from the curriculum; please revise catalog statements above

Department Head Signature: _____

Jeanine Myers

Date: 5-24-21

Arkansas Tech University

DEPARTMENTAL SUPPORT FORM

This form must be completed for every department affected by the course change.

Department Affected: Committee for Admissions, Academic Standards, and Student Honors	This department <input type="checkbox"/> supports <input type="checkbox"/> does not support the change.																					
Comments: For IB Examination, catalog shows: <table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">Computer Science/Standard</td> <td style="width: 10%;">4 w/diploma</td> <td style="width: 55%;"><u>COMS 2104 Foundations of Computer Programming I</u></td> </tr> <tr> <td>Computer Science/Higher</td> <td>4</td> <td><u>COMS 2104 Foundations of Computer Programming I</u></td> </tr> </table> For AP Examination, catalog shows: <table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">Computer Science Principles</td> <td style="width: 10%;">3</td> <td style="width: 55%;"><u>COMS 1403 Orientation to Computing, Information, and Technology &</u></td> </tr> <tr> <td>Computer Science A</td> <td>3</td> <td><u>COMS 1411 Computer and Information Science Lab</u></td> </tr> <tr> <td>Computer Science A</td> <td>4</td> <td><u>COMS 2104 Foundations of Computer Programming I</u></td> </tr> <tr> <td></td> <td></td> <td><u>COMS 2104 Foundations of Computer Programming I &</u></td> </tr> <tr> <td></td> <td></td> <td><u>COMS 2203 Foundations of Computer Programming II</u></td> </tr> </table> <p>COMS 1411 should be removed from listing (it will no longer be taught or required; next year it will be deleted from curriculum).</p> <p>COMS 1403 will no longer be required for any computing major; however, COMS 1403 will still remain in the catalog listing and will be taught as a service course. Students may receive credit for COMS 1403 and use those hours as electives.</p> <p>COMS 2104 changes:</p> <ol style="list-style-type: none"> a. Splitting into 3-hour lecture and 1-hour lab: COMS 1013 and COMS 1011 (coreqs for each other) b. COMS 1013 name → Programming I c. COMS 1011 name → Programming I lab <p>COMS 2203 is being renamed to → Programming II</p> <p>Catalog will need to be updated with new course names and numbers</p>		Computer Science/Standard	4 w/diploma	<u>COMS 2104 Foundations of Computer Programming I</u>	Computer Science/Higher	4	<u>COMS 2104 Foundations of Computer Programming I</u>	Computer Science Principles	3	<u>COMS 1403 Orientation to Computing, Information, and Technology &</u>	Computer Science A	3	<u>COMS 1411 Computer and Information Science Lab</u>	Computer Science A	4	<u>COMS 2104 Foundations of Computer Programming I</u>			<u>COMS 2104 Foundations of Computer Programming I &</u>			<u>COMS 2203 Foundations of Computer Programming II</u>
Computer Science/Standard	4 w/diploma	<u>COMS 2104 Foundations of Computer Programming I</u>																				
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		<u>COMS 2104 Foundations of Computer Programming I &</u>																				
		<u>COMS 2203 Foundations of Computer Programming II</u>																				

Department Head Signature: <Tammy Weaver is aware and said signature wasn't needed>

Date: _____



ARKANSAS TECH UNIVERSITY

PROPOSAL FOR NEW PROGRAM

(Certificate, Associate, Bachelor, Master's, or Doctoral Degrees)

Department Initiating Proposal	Date
Computer and Information Science	6-28-2021

Title	Signature	Date
Department Head	<i>Jerry Wood</i>	6-28-2021
Dean	<i>John L. Gynor</i>	6/30/2021
Assessment	<i>Christi Austin</i>	7.7.2021
Registrar	<i>Gammy Kleaver</i>	8/2/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Program Title:
Certificate of Proficiency in Computer Networking

PROPOSAL – 1 NEW DEGREE PROGRAM

1. PROPOSED PROGRAM TITLE

Certificate of Proficiency in Computer Networking

2. CIP CODE REQUESTED

Link for CIP Codes: <https://nces.ed.gov/ipeds/cipcode/Default.aspx?v=56>
11.0101

3. PROPOSED STARTING DATE

Fall 2022

4. CONTACT PERSON

Name (Program Contact Person) Dr. Jerry Wood
Title Associate Professor of Computer and Information Science
E-mail Address jwood@atu.edu
Phone Number 479-356-2066

5. PROGRAM SUMMARY

Provide a general description of the proposed program. Include overview of any curriculum additions or modifications; program costs; faculty resources, library resources, facilities and equipment; purpose of the program; and any information that will serve as introduction to the program.

Certificate of Proficiency (CP) in Computer Networking will use existing courses to provide students with the fundamentals of both computer networking and computer hardware concepts which could lead to a certification in computer networking (Network+) and/or in PC Repair/Maintenance (A+). No additional resources will be required for this CP since all courses required to complete are embedded in our bachelor degree programs – computer science and information technology.

List degree programs or emphasis areas currently offered at the institution that support the proposed program.

Computer Science, Information Technology, and Cyber Security

6. NEED FOR THE PROGRAM

(Submit Employer Needs Survey Forms)

Provide survey data. Submit numbers that show job availability, corporate demands and employment/wage projections, not student interest and anticipated

enrollment. Focus mostly on state needs and less on regional and national needs, unless applicable to the program.

To be completed Fall 2021

Survey data can be obtained by telephone, letters of interest, student inquiry, etc. Focus mostly on state needs for undergraduate programs; for graduate programs, focus on state, regional and national needs.

Provide names and types of organizations/businesses surveyed.

To be completed Fall 2021

Letters of support should address the following when relevant: the number of current/anticipated job vacancies, whether the degree is desired or required for advancement, the increase in wages projected based on additional education, etc.

To be completed Fall 2021

Indicate if employer tuition assistance is provided or if there are other enrollment incentives.

To be completed Fall 2021

Describe what need the proposed program will address and how the institution became aware of this need.

This program will provide students with foundational skills in computer networking and computer hardware/maintenance. It will provide our students with additional credentials upon graduating but can also serve as a means of showing technical ability to students unable to graduate with their degree. Additionally, it can be used by other majors or non-degree seeking students that seek to gain skills in in these areas.

Indicate which employers contacted the institution about offering the proposed program.

To be completed Fall 2021

Indicate the composition of the program advisory committee, including the number of members, professional background of members, topics to be considered by the members, meeting schedule (annually, bi-annually, quarterly), institutional representative, etc.

To be completed Fall 2021

Indicate the projected number of program enrollments for Years 1-3.

Since this CP is embedded within our existing degree programs, we can use current enrollment values. For the 2019-2020 academic year, enrollment for our bachelors degree programs were:

2019-2020

Computer Science - 129

Cyber security - 92

Information Technology - 110

2020-2021

COMS - 150

CSEC - 84

IT - 93

Indicate the projected number of program graduates in 3-5 years.

Being a certificate program, every student going through our BS in computer science and BS in Information Technology degree program will automatically meet the requirements to graduate. We also anticipate non-degree seeking students as well as students from other majors completing this CP. The expected number of graduates could be in the hundreds each year. We cannot easily predict this number at this time.

7. **CURRICULUM**

Provide curriculum outline by semester (include course number and title).
(For bachelor's degree program, submit the 8-semester degree plan.)

Course Number	Course Name	Credit Hours	Semester Taken
CSEC 1113	Introduction to Networking	3	Fall
COMS 2703	Computer Hardware and Architecture	3	Fall
CSEC 1213	Wireless and Cellular Security	3	Spring
CSEC 2223	Virtualization	3	Spring
	Total	12	

Give total number of semester credit hours required for the program, including prerequisite courses.

12 credit hours

Identify new courses (*in italics*) and provide course descriptions.

N/A

Identify required general education courses, core courses and major courses.

N/A

For each program major/specialty area course, list the faculty member assigned to teach the course.

N/A

Identify courses currently offered by distance technology (with an asterisk*) and endnote at the end of the document.

None of the courses required for this CP are taught as fully online

Indicate the number of contact hours for internship/clinical courses.

N/A

State the program admission requirements.

Student must meet general admission requirements only.

Describe specified learning outcomes and course examination procedures.

All courses in this CP are part of the BS in Computer Science curriculum which is ABET accredited.

Learning Outcomes:

- 1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions**
- 2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline**

Examination Procedures:

In each course, assignments and exams will be administered. The above learning outcomes will be measured using data gathered during the semester.

Include a copy of the course evaluation to be completed by the student.

N/A

Include information received from potential employers about course content.

To be completed in Fall 2021

Provide institutional curriculum committee review/approval date for proposed program.

8. FACULTY

List the names and credentials of all faculty teaching courses for the proposed program. Include college/university awarding degree; degree level; degree field; subject area of courses faculty currently teaching and/or will teach. (For associate degrees and above: A minimum of one full-time faculty member with appropriate academic credentials is required.)

Dr. Jerry Wood
Associate Professor
Department of Computer and Information Science
Arkansas Tech University
PhD in Computer and Information Science, Awarded 2015 from the
University of Arkansas at Little Rock

Indicate lead faculty member or program coordinator for the proposed program.

Dr. Jerry Wood
Associate Professor
Department of Computer and Information Science

Total number of faculty required for program implementation, including the number of existing faculty and number of new faculty. **For new faculty, provide the expected credentials/experience and expected hire date.**

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and are therefore taught already. There is no need for additional faculty.

For proposed graduate programs: Provide the curriculum vita for faculty teaching in the program, and the expected credentials for new faculty and expected hire date. Also, provide the projected startup costs for faculty research laboratories, and the projected number of and costs for graduate teaching and research assistants.

N/A

9. DESCRIPTION OF RESOURCES

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and cyber security are therefore taught already. There is no need for additional resources.

10. NEW PROGRAM COSTS – Expenditures for the first 3 years

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and cyber security and are therefore taught already. There are no additional costs associated with this CP.

11. **SOURCE OF PROGRAM FUNDING – Income for the first 3 years of program operation**

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and cyber security and are therefore taught already. There is no need for additional funding.

12. **ORGANIZATIONAL CHART REFLECTING NEW PROGRAM**

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and cyber security and are therefore taught already. There is no new organizational chart required.

13. **SPECIALIZED REQUIREMENTS**
N/A

14. **BOARD OF TRUSTEES APPROVAL**

Provide the date that the Board approved (or will consider) the proposed program.

Provide a copy of the Board meeting agenda that lists the proposed program, and written documentation of program/unit approval by the Board of Trustees prior to the Coordinating Board meeting that the proposal will be considered.

15. **SIMILAR PROGRAMS**

List institutions offering program:

Proposed undergraduate program – list institutions in Arkansas

- Arkansas Northeastern College
- Southern Arkansas University Tech
- UA Community College of Morrilton
- UA Community College of Batesville
- NorthArk College

State why proposed program needed if offered at other institutions in Arkansas or region.

Although programs at other institutions have somewhat similar CP's, they typically require more courses to be completed. And, for students in the river valley area, they may not be able/willing to travel to a different school to attain this CP. Additionally, most of those

institutions do not offer the degree options we have at ATU. Therefore, students completing the CP here have more options upon completion.

Provide a copy of the e-mail notification to other institutions in the state notifying them of the proposed program. Please inform institutions not to send the response to **“Reply All”**. If you receive an objection/concern(s) from an institution, reply to the institution and copy ADHE on the email. That institution should respond and copy ADHE. If the objection/concern(s) cannot be resolved, ADHE may intervene.

Will be completed in Fall 2021

Note: A written institutional objection/concern(s) to the proposed program/unit may delay Arkansas Higher Education Coordinating Board (AHECB) consideration of the proposal until the next quarterly AHECB meeting.

16. DESEGREGATION

State the total number of students, number of black students, and number of other minority students enrolled in related degree programs, if applicable.

N/A

17. INSTITUTIONAL AGREEMENTS/MEMORANDUM OF UNDERSTANDING (MOU)

N/A

18. ACADEMIC PROGRAM REVIEW

Provide scheduled program review date (within 10 years of program implementation date).

Since this CP is embedded within our other degree programs, it will undergo an annual assessment review to ensure learning outcomes are properly assessed. Additionally, program changes will be reviewed bi-annually to ensure the CP is up to date as well as technical relevant.

19. PROVIDE ADDITIONAL INFORMATION IF REQUESTED BY ADHE STAFF

20. INSTRUCTION BY DISTANCE TECHNOLOGY

N/A



ARKANSAS TECH UNIVERSITY

PROPOSAL FOR NEW PROGRAM (Certificate, Associate, Bachelor, Master's, or Doctoral Degrees)

Department Initiating Proposal	Date
Computer and Information Science	6-28-2021

Title	Signature	Date
Department Head	<i>Jerry Wood</i>	6-28-2021
Dean	<i>John L. Lyons</i>	6/30/2021
Assessment	<i>Christ Austin</i>	7.7.2021
Registrar	<i>Gammylee</i>	8/2/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Program Title:
Certificate of Proficiency in Computer Programming

PROPOSAL – 1 NEW DEGREE PROGRAM

1. **PROPOSED PROGRAM TITLE**

Certificate of Proficiency in Computer Programming

2. **CIP CODE REQUESTED**

Link for CIP Codes: <https://nces.ed.gov/ipeds/cipcode/Default.aspx?y=56>
11.0101

3. **PROPOSED STARTING DATE**

Fall 2022

4. **CONTACT PERSON**

Name (Program Contact Person) Dr. Jerry Wood
Title Associate Professor of Computer and Information Science
E-mail Address jwood@atu.edu
Phone Number 479-356-2066

5. **PROGRAM SUMMARY**

Provide a general description of the proposed program. Include overview of any curriculum additions or modifications; program costs; faculty resources, library resources, facilities and equipment; purpose of the program; and any information that will serve as introduction to the program.

Certificate of Proficiency (CP) in Computer Programming will use existing courses to provide students with the fundamentals of programming concepts which could lead to a certification in the C++ programming language. No additional resources will be required for this CP since all courses required to complete are embedded in our bachelor degree programs – computer science and information technology.

List degree programs or emphasis areas currently offered at the institution that support the proposed program.

Computer Science, Information Technology, and Cyber Security

6. **NEED FOR THE PROGRAM**

(Submit Employer Needs Survey Forms)

Provide survey data. Submit numbers that show job availability, corporate demands and employment/wage projections, not student interest and anticipated

enrollment. Focus mostly on state needs and less on regional and national needs, unless applicable to the program.

To be completed Fall 2021

Survey data can be obtained by telephone, letters of interest, student inquiry, etc. Focus mostly on state needs for undergraduate programs; for graduate programs, focus on state, regional and national needs.

Provide names and types of organizations/businesses surveyed.

To be completed Fall 2021

Letters of support should address the following when relevant: the number of current/anticipated job vacancies, whether the degree is desired or required for advancement, the increase in wages projected based on additional education, etc.

To be completed Fall 2021

Indicate if employer tuition assistance is provided or if there are other enrollment incentives.

To be completed Fall 2021

Describe what need the proposed program will address and how the institution became aware of this need.

This program will provide students with foundational skills in programming. It will provide our students with additional credentials upon graduating but can also serve as a means of showing technical ability to students unable to graduate with their degree. Additionally, it can be used by other major or non-degree seeking students that seek to gain skills in programming.

Indicate which employers contacted the institution about offering the proposed program.

To be completed Fall 2021

Indicate the composition of the program advisory committee, including the number of members, professional background of members, topics to be considered by the members, meeting schedule (annually, bi-annually, quarterly), institutional representative, etc.

To be completed Fall 2021

Indicate the projected number of program enrollments for Years 1-3.

Since this CP is embedded within our existing degree programs, we can use current enrollment values. For the 2019-2020 academic year, enrollment for our bachelors degree programs were:

2019-2020

Computer Science - 129
Cyber security - 92
Information Technology - 110

2020-2021

COMS - 150
CSEC - 84
IT - 93

Indicate the projected number of program graduates in 3-5 years.

Being a certificate program, every student going through our BS in computer science and BS in Information Technology degree program will automatically meet the requirements to graduate. We also anticipate non-degree seeking students as well as students from other majors completing this CP. The expected number of graduates could be in the hundreds each year. We cannot easily predict this number at this time.

7. **CURRICULUM**

Provide curriculum outline by semester (include course number and title).
(For bachelor's degree program, submit the 8-semester degree plan.)

Course Number	Course Name	Credit Hours	Semester Taken
COMS 1013	Programming I*	3	Fall
COMS 1011	Programming I Lab*	1	Fall
COMS 2203	Programming II*	3	Spring
MATH 2703	Discrete Structures*	3	Spring
COMS 2213	Data Structures*	3	Summer
	Total	13	

* courses taught in-person as well as fully online

Give total number of semester credit hours required for the program, including prerequisite courses.

13 credit hours

Identify new courses (*in italics*) and provide course descriptions.

N/A

Identify required general education courses, core courses and major courses.

N/A

For each program major/specialty area course, list the faculty member assigned to teach the course.

N/A

Identify courses currently offered by distance technology (with an asterisk*) and endnote at the end of the document.

COMS 1013/1011 Programming I*

COMS 2203 Programming II*

MATH 2703 Discrete Math*

COMS 2213 Data Structures*

All courses required for this CP are taught face-to-face as well as fully online

Indicate the number of contact hours for internship/clinical courses.

N/A

State the program admission requirements.

Student must complete MATH 1113 with a grade of C or better in order to enroll in COMS 1013 Programming I which serves as a prerequisite to other courses in the CP.

Describe specified learning outcomes and course examination procedures.

All courses in this CP are part of the BS in Computer Science curriculum which is ABET accredited.

Learning Outcomes:

- 1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions**
- 2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline**

Examination Procedures:

In each course, assignments and exams will be administered. The above learning outcomes will be measured using data gathered during the semester.

Include a copy of the course evaluation to be completed by the student.

N/A

Include information received from potential employers about course content.

To be completed in Fall 2021

Provide institutional curriculum committee review/approval date for proposed program.

8. **FACULTY**

List the names and credentials of all faculty teaching courses for the proposed program. Include college/university awarding degree; degree level; degree field; subject area of courses faculty currently teaching and/or will teach. (For associate degrees and above: A minimum of one full-time faculty member with appropriate academic credentials is required.)

Dr. Jerry Wood

Associate Professor

Department of Computer and Information Science

Arkansas Tech University

PhD in Computer and Information Science, Awarded 2015 from the University of Arkansas at Little Rock

Indicate lead faculty member or program coordinator for the proposed program.

Dr. Jerry Wood

Associate Professor

Department of Computer and Information Science

Total number of faculty required for program implementation, including the number of existing faculty and number of new faculty. **For new faculty, provide the expected credentials/experience and expected hire date.**

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and are therefore taught already. There is no need for additional faculty.

For proposed graduate programs: Provide the curriculum vita for faculty teaching in the program, and the expected credentials for new faculty and expected hire date. Also, provide the projected startup costs for faculty research laboratories, and the projected number of and costs for graduate teaching and research assistants.

N/A

9. **DESCRIPTION OF RESOURCES**

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and are therefore taught already. There is no need for additional resources.

10. **NEW PROGRAM COSTS – Expenditures for the first 3 years**

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and are therefore taught already. There are no additional costs associated with this CP.

11. **SOURCE OF PROGRAM FUNDING – Income for the first 3 years of program operation**

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and are therefore taught already. There is no need for additional funding.

12. **ORGANIZATIONAL CHART REFLECTING NEW PROGRAM**

The courses required for this CP are embedded in our other department's degrees - computer science, information technology and are therefore taught already. There is no new organizational chart required.

13. **SPECIALIZED REQUIREMENTS**
N/A

14. **BOARD OF TRUSTEES APPROVAL**

Provide the date that the Board approved (or will consider) the proposed program.

Provide a copy of the Board meeting agenda that lists the proposed program, and written documentation of program/unit approval by the Board of Trustees prior to the Coordinating Board meeting that the proposal will be considered.

15. **SIMILAR PROGRAMS**

List institutions offering program:

Proposed undergraduate program – list institutions in Arkansas

- Southern Arkansas University Tech
- Arkansas State University – Mid South
- UA Community College of Morrilton
- South Ark Community College

State why proposed program needed if offered at other institutions in Arkansas or region.

Although programs at other institutions have somewhat similar CP's, they typically require more courses to be completed. And, for students in the river valley area, they may not be able/willing to travel to a different school to attain this CP. Additionally, most of those institutions do not offer the degree options we have at ATU. Therefore, students completing the CP here have more options upon completion.

Provide a copy of the e-mail notification to other institutions in the state notifying them of the proposed program. Please inform institutions not to send the response to **"Reply All"**. If you receive an objection/concern(s) from an institution, reply to the institution and copy ADHE on the email. That institution should respond and copy ADHE. If the objection/concern(s) cannot be resolved, ADHE may intervene.

Will be completed in Fall 2021

Note: A written institutional objection/concern(s) to the proposed program/unit may delay Arkansas Higher Education Coordinating Board (AHECB) consideration of the proposal until the next quarterly AHECB meeting.

16. **DESEGREGATION**

State the total number of students, number of black students, and number of other minority students enrolled in related degree programs, if applicable.

N/A

17. **INSTITUTIONAL AGREEMENTS/MEMORANDUM OF UNDERSTANDING (MOU)**

N/A

18. **ACADEMIC PROGRAM REVIEW**

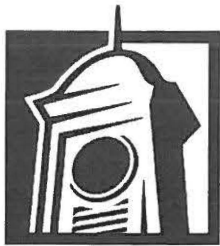
Provide scheduled program review date (within 10 years of program implementation date).

Since this CP is embedded within our other degree programs, it will undergo an annual assessment review to ensure learning outcomes are properly assessed. Additionally, program changes will be reviewed bi-annually to ensure the CP is up to date as well as technical relevant.

19. **PROVIDE ADDITIONAL INFORMATION IF REQUESTED BY ADHE STAFF**

20. **INSTRUCTION BY DISTANCE TECHNOLOGY**

N/A



ARKANSAS TECH UNIVERSITY

PROPOSAL FOR NEW PROGRAM

(Certificate, Associate, Bachelor, Master's, or Doctoral Degrees)

Department Initiating Proposal	Date
Mathematics	8/2/21

Title	Signature	Date
Department Head Dr. Jeanine Myers	<i>Jeanine L. Myers</i>	8/2/21
Dean Dr. Jeff Robertson	<i>Jeff W. Robertson</i>	2021 Aug 2
Assessment Dr. Christine Austin	<i>Christine Austin</i>	8.2.2021
Registrar Mrs. Tammy Weaver	<i>Tammy Weaver</i>	8/2/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs Dr. Barbara Johnson		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Program Title:

Certificate of Proficiency in Applied Statistics

**PROPOSAL – 1
NEW DEGREE PROGRAM**

1. PROPOSED PROGRAM TITLE

Certificate of Proficiency in Applied Statistics

2. CIP CODE REQUESTED

27.0599

3. PROPOSED STARTING DATE

Summer 2022

4. CONTACT PERSON

*Dr. Barbara J. Johnson
VP of Academic Affairs
Arkansas Tech University
bjohnson@atu.edu
479.968.0319*

*Dr. Jeanine Myers
Head, Department of Mathematics & Statistics
Arkansas Tech University
jmyers32@atu.edu
479.968.0659*

5. PROGRAM SUMMARY

Provide a general description of the proposed program. Include overview of any curriculum additions or modifications; program costs; faculty resources, library resources, facilities and equipment; purpose of the program; and any information that will serve as introduction to the program.

*According to the World Economic Forum's **The Future of Jobs Report 2020** (Oct. 2020), the top three jobs with increasing demand across industries all fall under the data and analytics umbrella. In today's data-centric world, statisticians, data analysts, and other data professionals are in high demand. Companies of all sizes are all looking for professionals with applied statistics knowledge who can visualize and analyze data, make sense of it, and use it to solve real-world problems.*

Applied statistics is the root of data analysis. The practice of applied statistics involves analyzing data to help define and determine business needs. The certificate in Applied Statistics offers a 16-hours stand-alone solution for individuals currently employed in data related positions, corporate, management, industrial, and nonprofit positions but seeking

formal training in data analysis skills. Next, the certificate offers an opportunity for current students majoring in other fields at ATU to gain relevant statistical knowledge. The certificate in Applied Statistics would enhance their marketability in the work force, where implementing statistical analysis to make informed decisions is greatly emphasized. Next, the certificate offers an opportunity for individuals who have earned some college credit but have not received a baccalaureate degree to get in touch of the analytics field. For these potential students, the certificate in Applied Statistics would serve as a gateway to the Bachelor of Applied Statistics degree.

List degree programs or emphasis areas currently offered at the institution that support the proposed program.

*Bachelor of Science program in Applied Statistics
Bachelor of Science program in Business Data Analytics*

6. NEED FOR THE PROGRAM

In the World Economic Forum's The Future of Jobs Report 2020 (Oct. 2020), the top three jobs with increasing demand across industries all fall under the data and analytics umbrella. According to the Bureau of Labor Statistics, statistics-related jobs will grow 33 percent by 2026, much faster than other fields. There is a growing need for qualified statistical analysts of the ever-increasing amounts of data collected in business, industry, and government.

In Arkansas, the 2-year and 4-year universities and colleges are participating in the five-year statewide collaborative research project, EPSCoR 'Dart Analytics that are Robust and Trust: From Smart Curation to Socially Aware Decision Making (DART)', and working collaboratively to establish Data Science programs for each institution. EPSCoR DART education research team is also working on statewide Employer Needs Survey for the data science and data analytics related programs.

Submit Workforce Analysis Form or Employer Needs Survey (only when workforce data is deficient for the academic discipline within the proposal)
N/A

Employer Needs Survey should include the following:

- **Submit numbers that show job availability, corporate demands and employment/wage projections, not student interest and anticipated enrollment. Focus mostly on state needs and less on regional and national needs, unless applicable to the program.**

- Survey data can be obtained by telephone, letters of interest, student inquiry, etc. Focus mostly on state needs for undergraduate programs; for graduate programs, focus on state, regional and national needs.
- Provide names and types of organizations/businesses surveyed.

Letters of support should address the following when relevant: the number of current/anticipated job vacancies, whether the degree is desired or required for advancement, the increase in wages projected based on additional education, etc.

N/A

Indicate if employer tuition assistance is provided or if there are other enrollment incentives.

N/A

Describe what need the proposed program will address and how the institution became aware of this need.

1. *The graduate demonstrates critical statistical thinking in the data collection, analysis, and interpretation phase.*
2. *The graduate demonstrates good working knowledge of the most commonly used statistical methods and design of studies.*
3. *The graduate has good mastery of statistical computing skills and computer programming ability for manage and analyze data.*
4. *The graduate communicates effectively (written or oral) with skills in collaboration (within and between discipline) and teamwork.*
5. *The graduate implements various statistical tools for quality monitoring commonly used in industry.*

Indicate which employers contacted the institution about offering the proposed program.

N/A

Indicate the composition of the program advisory committee, including the number of members, professional background of members, topics to be considered by the members, meeting schedule (annually, bi-annually, quarterly), institutional representative, etc.

N/A

Indicate the projected number of program enrollments for Years 1 - 3.

It is anticipated the undergraduate students at ATU with primary interest in business, biological science, industrial engineering, nursing, computer science, mathematics, and many other disciplines will want to simultaneously earn the certificate in Applied Statistics. Conservatively, it is anticipated approximately 50 certificates annually. In the long run, it is also expected with develop over time through marketing and outreach efforts, employees from local employers with data focus will seek to earn the certificate in Applied Statistics to enhance employment opportunities or boost their career development.

Indicate the projected number of program graduates in 3-5 years.

N/A

7. CURRICULUM

Provide curriculum outline by semester (include course number and title).

(For bachelor's degree program, submit the 8-semester degree plan.)

Curriculum outline for the Certificate of Proficiency in Applied Statistics program. The required courses are underlined below.

Prerequisite: Any introductory statistics course

STAT 2304 Programming Language for Data Science

STAT 3113 Regression Analysis

STAT 4153 Experimental Design and Analysis

(Choose two electives)

STAT 3183 Statistical Process Control

STAT 4113 Categorical Data Analysis

STAT 4163 Mathematical Statistics

STAT 4393 Statistical Learning

STAT 4383 Machine Learning

BDA 3033 Data Modeling and Management

BDA 3013 Business Spreadsheet Modeling

Give total number of semester credit hours required for the program, including prerequisite courses.

Total semester credit hours:

16 semester credit hours

Identify new courses (*in italics*) and provide course descriptions.

STAT 2304 Programming Language for Data Science is new course in the curriculum of the Applied Statistics certificate program. It is also the required course in both the curriculum of Bachelor of Applied Statistics degree Actuarial Science track and Data Science track.

STAT 4383 Machine Learning is proposed as a new course in the curriculum of the certificate program in Applied Statistics, an upper-division elective in the Bachelor of Applied Statistics degree Actuarial Science track, as well as the core course in the Applied Statistics degree Data Science track.

Identify required general education courses, core courses and major courses.

N/A

For each program major/specialty area course, list the faculty member assigned to teach the course.

All the courses listed in the proposed Certificate of Proficiency in Applied Statistics curriculum are the courses offered in the Applied Statistics Program or the Business Data Analytics Program. The faculty members in these two programs will teach the courses in the proposed program.

Identify courses currently offered by distance technology (with an asterisk*) and endnote at the end of the document.

All courses are campus-based only.

Indicate the number of contact hours for internship/clinical courses.

N/A

State the program admission requirements.

N/A

Describe specified learning outcomes and course examination procedures.

Expected student learning outcomes:

- 1. Ability to understand probability and statistics in order to quantify uncertainty.*
- 2. Ability to design and analyze experiment for standard situations.*

3. *Ability to apply appropriate statistical methods on data collected in business, industry, and government.*
4. *Ability to implements professional statistical software packages for statistical computing.*
5. *Ability to interpret the results with proper scope of conclusions.*
6. *Ability to make informed decisions based on analysis.*
7. *Ability to communicate statistical findings both orally and in writing.*

The course examination procedures will be the same as that in the Applied Statistics Program or the Business Data Analytics Program.

Include a copy of the course evaluation to be completed by the student.

Arkansas Tech University
Eval_Base_201820

Question 1

Student Evaluation of Faculty Survey

Question 2

Please answer the following questions about your commitment to this course.

Question 3

How often did you attend this course?

(4) Always ☐ (3) Frequently ☐ (2) Rarely ☐ (1) Never ☐

* Reversed Options * Do Not Calculate Mean(SD)

Question 4

On average, how many hours per week did you spend on this course outside of class (Examples: homework, readings, reviewing notes, completing weekly assignments, etc)?

(5) 0 hours ☐ (4) 1-3 hours ☐ (3) 4-6 hours ☐ (2) 7-10 hours ☐ (1) more than 10 hours ☐

* Reversed Options * Do Not Calculate Mean(SD)

Question 5

How satisfied were you with your effort in this course?

(5) Very Satisfied ☐ (4) Satisfied ☐ (3) Unsure ☐ (2) Dissatisfied ☐ (1) Very Dissatisfied ☐

* Reversed Options *

Page 1 of 8

Question 6

What is your expected grade in this course?

- (5) A ☐ (4) B ☐ (3) C ☐ (2) D ☐ (1) F ☐ (0) Course Not Graded ☐

* Include Non-Numeric Option * Reversed Options * Do Not Calculate Mean Std

Question 7

What could you have done to be a more effective learner in this course?

Question 8

Please answer the following questions about classroom materials and university resources.

Question 9

Did you utilize resources outside the classroom for this course (Examples: writing lab, advising center, tutoring, or other similar resources)?

- (2) Yes ☐ (1) No ☐ (0) None Available ☐

* Question has branched logic * Include Non-Numeric Option * Reversed Options * Do Not Calculate Mean Std

Page 2 of 8

Question 10

If yes, which resources did you utilize? (Check all that apply)

- ☐ (4) Writing Lab
☐ (3) Advising Center
☐ (2) On-Campus Tutoring
☐ (1) Other

* Question is referenced by branched logic * Reversed Options

Question 11

Did you have access to (rent, purchase, or borrow) the required course materials (Examples: textbook, online access code, etc.)?

- (3) Yes ☐ (2) Some ☐ (1) No ☐ (0) None Required ☐

* Question has branched logic * Include Non-Numeric Option * Reversed Options * Do Not Calculate Mean Std

Question 12

The required course materials were valuable to my success in this course

- (5) Strongly Agree ☐ (4) Agree ☐ (3) Neutral ☐ (2) Disagree ☐ (1) Strongly Disagree ☐

* Question is referenced by branched logic * Reversed Options

Question 13

Did the instructor(s) provide supplemental materials (Examples: handouts, visuals, online resources, etc.)?

- (2) Yes ☐ (1) No ☐

* Reversed Options * Do Not Calculate Mean Std

Page 3 of 8

Question 14

Did the physical space the course was held in (Examples: classroom, lecture hall, laboratory, etc.) negatively impact your learning?

(2) Yes (1) No (3) Other/Not Applicable
☐ ☐ ☐

* Question has branched logic: * Include Non-Numeric Option * Reversed Options * Do Not Calculate Mean/Std

Question 15

If you answered 'YES' to the previous question, please explain how the physical space negatively impacted your learning.

* Question is referenced by branched logic:

Question 16

Please answer the following questions about the instructor.

Question 17

I sought the instructor out for assistance (Examples: after class, office hours, email, phone, etc.)

(2) Yes (1) No
☐ ☐

* Question has branched logic: * Reversed Options * Do Not Calculate Mean/Std

Page 4 of 8

Question 18

When I had questions or needed assistance, my instructor was available.

(5) Strongly Agree (4) Agree (3) Neutral (2) Disagree (1) Strongly Disagree
☐ ☐ ☐ ☐ ☐

* Question is referenced by branched logic: * Reversed Options * Team Taught Question

Question 19

When I had questions or needed assistance, the instructor was willing to help.

(2) Yes (1) No (3) I did not seek out assistance
☐ ☐ ☐

* Question has branched logic: * Include Non-Numeric Option * Reversed Options * Do Not Calculate Mean/Std

Question 20

If you answered no to the previous question please explain, citing specific examples if possible.

* Question is referenced by branched logic: * Team Taught Question

Page 4 of 8

Question 21

	(5) Strongly Agree	(4) Agree	(3) Neutral	(2) Disagree	(1) Strongly Disagree
The instructor incorporated examples that furthered my understanding of course topics.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor communicated guidelines and expectations clearly and evaluated each accordingly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor was well organized and prepared for class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor demonstrated a deep understanding of course topics.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor provided timely feedback on assignments, tests, & discussions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor acted in a professional manner and treated students with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor created an environment that was conducive to learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor was proficient in English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Reversed Option * Team Taught Question

Question 22

Please rate your instructor's overall performance.

(5) Excellent	(4) Very Good	(3) Good	(2) Fair	(1) Very Poor
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Reversed Option * Team Taught Question

Page 5 of 8

Question 23

Please answer the following open response questions.

Question 24

What were the strengths of this course?

Question 25

Do you have any constructive suggestions on improving this course?

Page 7 of 8

Question 26

Do you have any additional comments about the instructor?

* Team Taught Question

Include information received from potential employers about course content.

N/A

Provide institutional curriculum committee review/approval date for proposed program.

TBD

8. **FACULTY**

List the names and credentials of all faculty teaching courses for the proposed program. Include college/university awarding degree; degree level; degree field; subject area of courses faculty currently teaching and/or will teach. (For associate degrees and above: A minimum of one full-time faculty member with appropriate academic credentials is required.)

As all the courses listed in the proposed Certificate of Proficiency in Applied Statistics curriculum are the courses offered in the Applied Statistics Program or the Business Data Analytics Program, the faculty members in these two programs will teach the courses in the proposed program.

Indicate lead faculty member or program coordinator for the proposed program.

Dr. Weijia Jia

Total number of faculty required for program implementation, including the number of existing faculty and number of new faculty. For new faculty, provide the expected credentials/experience and expected hire date.

Number of Faculty Required for Implementation

We have an assistant professor of statistics, an assistant professor of mathematics, an associate professor of statistics, and an instructor of statistics currently in the Department of Mathematics and Statistics.

There is no new faculty that is needed at this point.

For proposed graduate programs: Provide the curriculum vita for faculty teaching in the program, and the expected credentials for new faculty and expected hire date. Also, provide the projected startup costs for faculty research laboratories, and the projected number of and costs for graduate teaching and research assistants.

N/A

9. **DESCRIPTION OF RESOURCES**

Current library resources in the field

With the necessary database available (MathSciNet, Web of Science, Business Insights, etc.) and the E-journals and publications in statistics and data analysis to which ATU has full-text access, the current library at ATU could support the proposed Certificate of Proficiency in Applied Statistics program.

Current instructional facilities including classrooms, instructional equipment and technology, laboratories (if applicable)

ATU has more than 40 computer labs across the campus, including 12 computer classrooms could be used for teaching or student use and 6 for restricted class use. Students can get access to computers in the library and technology center. The current resources (computer lab, software, etc.) are adequate for the proposed Certificate of Proficiency in Applied Statistics program.

New instructional resources required, including costs and acquisition plan
None

10. **NEW PROGRAM COSTS – Expenditures for the first 3 years**
New administrative costs (number and position titles of new administrators)
Number of new faculty (full-time and part-time) and costs
New library resources and costs
New/renovated facilities and costs
New instructional equipment and costs
Distance delivery costs (if applicable)
Other new costs (graduate assistants, secretarial support, supplies, faculty development, faculty/students research, program accreditation, etc.)

If no new costs required for program implementation, provide explanation.

All the courses listed in the proposed Certificate of Proficiency in Applied Statistics curriculum are the courses offered in the Applied Statistics Program or the Business Data Analytics Program. Therefore, there is no new costs required for this new program implementation.

11. **SOURCE OF PROGRAM FUNDING – Income for the first 3 years of program operation**
If there will be a reallocation of funds, indicate from which department, program, etc.

N/A

Provide the projected annual student enrollment, the amount of student tuition per credit hour, and the total cost of the program that includes tuition and fees.

Approximately 30 students for the first-year enrollment and may increase after the first year.

Indicate the projected annual state general revenues for the proposed program (Provide the amount of state general revenue per student).

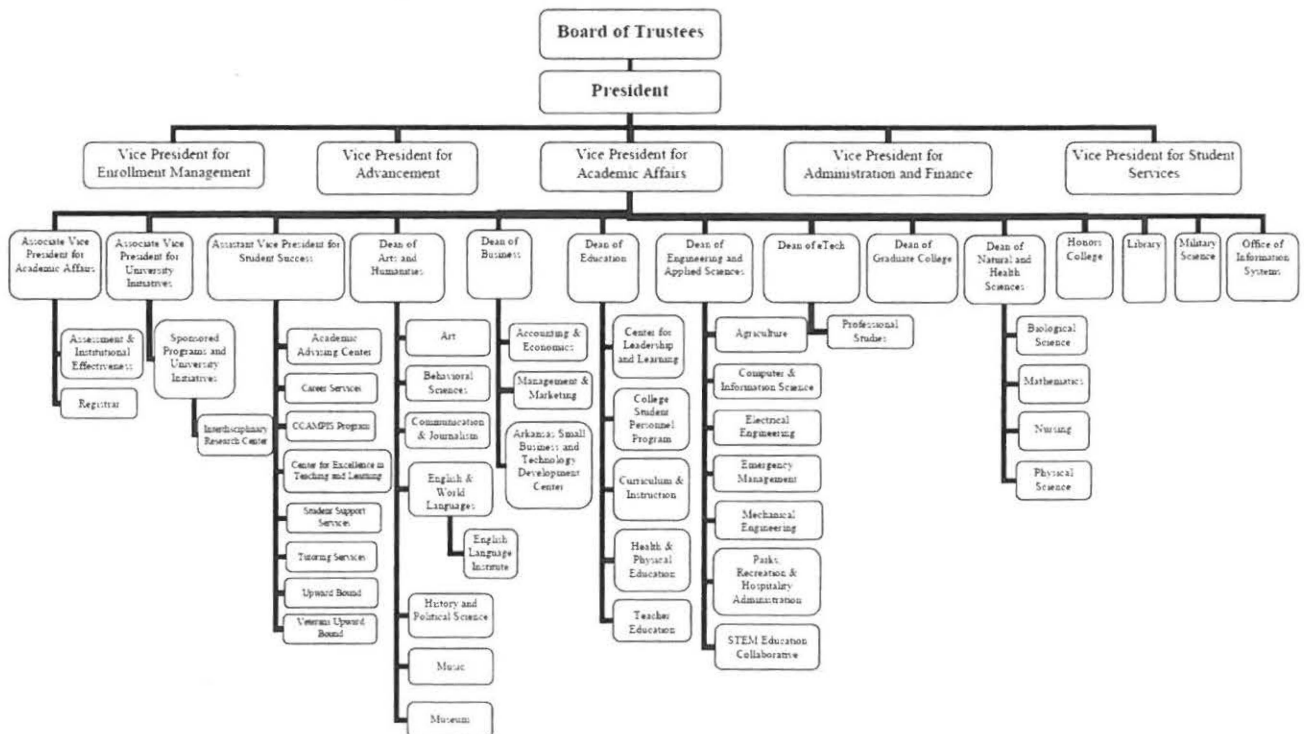
\$33,387,368 from State of Arkansas; this all goes into one general revenue fund; this is the amount that the VP of Administration and Finance distributes to the academic departments based on student semester credit hour production.

Other (grants [list grant source & amount of grant], employers, special tuition rates, mandatory technology fees, program specific fees, etc.).

N/A

12. ORGANIZATIONAL CHART REFLECTING NEW PROGRAM

Proposed program will be housed in the Department of Mathematics and Statistics in the College of Natural & Health Science.



13. **SPECIALIZED REQUIREMENTS**

If specialized accreditation is required for program, list the name of accrediting agency.

None at this point.

Indicate the licensure/certification requirements for student entry into the field.

N/A

Provide documentation of Agency/Board review/approvals (education, nursing--initial approval required, health-professions, counseling, etc.)

None

14. **BOARD OF TRUSTEES APPROVAL**

Provide the date that the Board approved (or will consider) the proposed program.

TBD

Provide a copy of the Board meeting agenda that lists the proposed program, and written documentation of program/unit approval by the Board of Trustees prior to the Coordinating Board meeting that the proposal will be considered.

TBD

15. **SIMILAR PROGRAMS**

There is no similar certificate program offered in the past within the state of Arkansas. In Fall 2021, in addition to offering the new Bachelor of Science in Data Science and Data Analytics program, Arkansas State University will also offer an Undergraduate Certificate (25 credit hours, of which 6 credit hours are included in General Education) appropriate for student in other majors who like to add data analytics skills to their educational experience.

Within the US, while most of the Applied Statistics Certificates are online graduate certificate, there are several institutions offering similar undergraduate certificate programs. For comparative purpose, University of Colorado Denver offers a 13 total credit hours undergraduate certificate in Applied Statistics. The University of Texas at Austin offers a Certificate in Applied Statistical Modeling with a requirement of 18 credit hours. Wilmington University offers an 18-credit Certificate in Applied Statistics for the Social Sciences. American University Washington, DC offers the Applied Statistics (Undergraduate Certificate) requires 17 credit hours of approved coursework with at least 9 credit hours at or above 300-level.

List institution(s) offering a similar program that the institution used as a model to develop the proposed program.

Arkansas Tech University did not use any particular institution as an example/model for curriculum and degree development. The curriculum of the Certificate of Proficiency in Applied Statistics is developed by including essential statistical courses and the coursework to confer in-demand data analytics skills sought by the employers in the state and region.

Provide a copy of the e-mail notification to other institutions in the state notifying them of the proposed program. Please inform institutions not to send the response to "Reply All". If you receive an objection/concern(s) from an institution, reply to the institution and copy ADHE on the email. That institution should respond and copy ADHE. If the objection/concern(s) cannot be resolved, ADHE may intervene.

Jeff Robertson

From: Jeff Robertson
Sent: Tuesday, June 18, 2019 2:28 PM
To: caos4-year@adhe.edu
Cc: Jeff Robertson
Subject: Proposed program

Notifications and Responses

Notification

This email is notification that Arkansas Tech University will propose offering a Bachelor of Science in Applied Statistics with Actuary Science Option or Computer Science Option effective Summer 2020 and is interested in receiving comments or feedback about the program. This program will be offered in a campus-based format and is oriented toward preparing students to be data analysts. The Applied Statistics degree with actuarial science option includes courses in mathematics, data analysis, statistical software, business data analytics, economics, accounting, actuarial probability, financial mathematics, upper level electives in both statistics and mathematics, and an internship/capstone project. The Applied Statistics degree with computer science option includes courses in mathematics, data analysis, statistical software, experimental and modeling design, categorical analysis, computer programming, data structures, upper level electives in both statistics and computer science, and an internship/capstone project. The program, orientation and format are in response to student and employer demand. We respectfully request your support for this proposal.

*Please email any responses to Dr. Jeff Robertson at jrobertson@atu.edu
Thank you for your time and consideration.*

Sincerely,

*Jeff Robertson, Ph.D.
Dean, College of Natural & Health Sciences
Interim Dean of the Graduate College
Arkansas Tech University
1701 N. Boulder Ave.
Russellville, AR 72801
479.964.0548*

Note: A written institutional objection/concern(s) to the proposed program/unit may delay Arkansas Higher Education Coordinating Board (AHECB) consideration of the proposal until the next quarterly AHECB meeting.

16. DESEGREGATION

State the total number of students, number of black students, and number of other minority students enrolled in related degree programs, if applicable.

Data is not available for these programs because they were just recently implemented at ATU.

17. INSTITUTIONAL AGREEMENTS/MEMORANDUM OF UNDERSTANDING (MOU)

If the courses or academic support services will be provided by other institutions or organizations, include a copy of the signed MOU that outlines the responsibilities of each party and the effective dates of the agreement.

N/A

18. ACADEMIC PROGRAM REVIEW

The Certificate of Proficiency in Applied Statistics program review will occur concurrently with the next program review of the Bachelor of Applied Statistics program review during the 2030-2031 academic year.

19. PROVIDE ADDITIONAL INFORMATION IF REQUESTED BY ADHE STAFF

20. INSTRUCTION BY DISTANCE TECHNOLOGY

If the proposed program will be offered by distance technology, provide the following information: *All courses offered in the new Certificate of Proficiency in Applied Statistics program are campus-based only.*

Summarize institutional policies on the establishment, organization, funding and management of distance courses/degrees.

N/A; This degree will be offered as a campus-based degree.

Describe the internal organizational structure that coordinates (development, technical support, oversight) distances courses/degrees.

N/A; This degree will be offered as a campus-based degree.

Summarize the policies and procedures to keep the technology infrastructure current.

N/A; This degree will be offered as a campus-based degree.

Summarize the procedures that assure the security of personal information. *N/A; This degree will be offered as a campus-based degree.*

Provide a list of services that will be outsourced to other organizations (course materials, course management and delivery, technical services, online payment, student privacy, etc.).

N/A; This degree will be offered as a campus-based degree.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Health and Physical Education	

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Tammy Weaver</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
HES	1003	<input checked="" type="radio"/> Spring <input type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Introduction to Exercise Programming		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)		
Intro to Exercise Programming		

Will this course be cross-listed with another existing course? If so, list course subject and number.
☐ Yes ☒ No _____

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?
 If so, list course subject and number. ☐ Yes ☒ No _____

Is this course repeatable for additional earned hours? ☐ Yes ☒ No How many total hours? _____

Grading: ☒ Standard Letter ☐ P/F ☐ Other _____

Mode of Instruction (check appropriate box):

<input type="radio"/> 01 Lecture	<input checked="" type="radio"/> 02 Lecture/Laboratory	<input type="radio"/> 03 Laboratory only
<input type="radio"/> 05 Practice Teaching	<input type="radio"/> 06 Internship/Practicum	<input type="radio"/> 07 Apprenticeship/Externship
<input type="radio"/> 08 Independent Study	<input type="radio"/> 09 Readings	<input type="radio"/> 10 Special Topics
<input type="radio"/> 12 Individual Lessons	<input type="radio"/> 13 Applied Instruction	<input type="radio"/> 16 Studio Course
<input type="radio"/> 17 Dissertation	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar <input type="radio"/> 98 Other

Does this course require a fee? ☒ Yes ☐ No How Much? Select Fee Type

If selected other list fee type: _____

☐ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.?

Will this course require a special classroom (computer lab, smart classroom, or laboratory)?
Tech Fit, gymnasium, and outdoor spaces for exercise technique instruction.

Answer the following Assessment questions:

- If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- If this course is required for the major or minor, complete the following.
 - Provide the program level learning outcome(s) it addresses.
 - The acquisition and retention of knowledge specific to the basic training principles of resistance training, cardiovascular training, flexibility, and nutrition to health and fitness.
 - The acquisition and retention of knowledge specific to basic kinesiology, exercise physiology, and exercise science.
 - The development of the ability to design an overall exercise program based on evidence based practices, basic exercise science and training principles.
 - Develop an understanding and participate in regular exercise, physical activity, healthy practices, and the benefits to activities of daily living, occupation, or athletics.

2. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)

- I. Quizzes specific to each topic will be used during the semester to assess acute knowledge retention.
 - II. Exercise Log and Personal Exercise record book(s) will be kept, to record participation in exercise sessions and in personal fitness and recreational activities
 - III. Resource Folio will be developed throughout the course that is an accumulation of articles, and other informational sources that students can use for programming, training, and healthy behavior.
 - IV. Leading a weight training fitness class will assess a student's ability to develop and instruct classmates through a free weight, weight machine, or combined modes.
 - V. Leading a cardiovascular fitness class will assess a student's ability to develop and instruct classmates through a walking, jogging, cardiovascular machines, or group exercise modes.
 - VI. 1-month Exercise Program will be developed by each student to assess their ability to organize basic and effective warm-ups, main body of exercises, cool-downs, recovery methods, and progressions to increase overall physical fitness.
 - VII. Final Exam will be used to assess the knowledge retention of the basic programming information learned during the course duration.
- c. What is the rationale for adding this course? What evidence demonstrates this need?
- I. The early introduction to the basic exercise principles and evidence based practices that are applicable to health and exercise science will improve the students understanding of what the profession entails and more effectively prepare them for more rigorous classes.

For the proposed course, attach a syllabus in Word format that includes: (Items a. through d. should be entered as they should appear in the catalog)

- a. Course subject: **HES**
- b. Course number: **1003**
- c. Catalog course title: **Introduction to Exercise Programming**
- d. Catalog description: **This course will introduce students the four components of fitness (muscular strength & endurance; cardiorespiratory endurance; flexibility; and body composition), the F.I.T.T. principle (Frequency- Intensity- Type- Time), basic physical adaptations, and basic strength & endurance exercises. Students will be taken through example applications of programming, led through programs by the instructor and tested on knowledge of basic programming knowledge.**
 1. Arkansas Course Transfer System (ACTS) course number, if applicable
 2. Cross-listing: **Not Applicable**
 3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring)
 4. Prerequisites: **Not Applicable**
 5. Co-requisites: **Not Applicable**
 6. Description: **Not Applicable**
 7. Notes (e.g., information not in description such as course may be repeated for credit)
 8. Contact Hours if different than lecture (e.g., Lecture three hours, laboratory three hours)
 9. Fees (e.g., \$36 art fee): **\$25 lab fee**
- e. Section for Name of instructor, office hours, contact information (telephone, email)
Randy Kirkpatrick, wkirkpatrick@atu.edu, 479-964-0583 ext.4905
- f. Text required for course: **Secrets of Successful Program Design (2021) Alwyn Cosgrove and Craig Rasmussen. Human Kinetics. Champaign, IL. ISBN: 9781492593225**
- g. Bibliography (supplemental reading list)
- h. Justification/rationale for the course: **The early introduction to the basic exercise principles and evidence based practices that are applicable to health and exercise science will improve the students understanding of what the profession entails and more effectively prepare them for more rigorous classes.**
- i. Course objectives
 - I. **Develop and be prepared to convey knowledge of resistance training to total fitness.**
 - II. **Demonstrate the ability to devise resistance training programs for total physical health.**
 - III. **Develop knowledge and understanding of resistance training physiological responses.**
 - IV. **Develop and be prepared to convey knowledge gained from the course of fitness training.**
 - V. **Discuss and demonstrate proper cardiovascular training form which enhances performance and reduces the risk of injury.**
 - VI. **Describe the appropriate frequency, intensity, and time of cardiovascular training required for physiological adaptations.**
 - VII. **Develop an understanding of how aerobic fitness can be achieved from cardiovascular training (e.g. walking and jogging) and can improve one's overall health.**
 - VIII. **Discuss the basic tenets of the Food Guide Pyramid and explain how it relates to an overall effective exercise program.**
 - IX. **Describe the basic roles and functions of the six basic nutrient classifications: carbohydrate, fat, protein, water, vitamins, and minerals.**
 - X. **Demonstrate a basic knowledge of body fat control and maintenance of body fat.**
 - XI. **Demonstrate and discuss the concept of locus of control, and describe how its employment leads to personal health enhancement.**
 - XII. **Design an overall exercise program for total fitness that will address personal goals, which are based on the training principles.**

- j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)
- k. Assessment methods (include grading policy with specific equivalents for A, B, C)

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE ASSIGNMENTS & EXAMS

<u>Grade Title</u>	<u>Points</u>
Quizzes	8 x 15 ≈ 120
Exercise Log	12 x 10 = 120
Resource Folio	15 x 10 = 150
Leading a weight training fitness class	= 100
Leading a cardiovascular fitness class	= 100
Personal Exercise Log	= 100
<u>1-month Exercise Program</u>	<u>= 100</u>
Total	= 790

Quizzes: A quiz will be given at the beginning of eight weekly sessions to sample the knowledge acquired from the assigned material. Each quiz is worth a total of approximately (Average 15 points each, Range 12-25 points).

Exercise Log: An exercise log record book will be kept, to record participation in exercise sessions and in personal fitness and recreational activities. The exercise log will be worth a total of 120 points (12 weeks @ 10 points per week).

Resource Folio: A resource folio will be completed during the course and is worth a total of 150 points (15 weeks @ 10 points per week).

Leading a weight training fitness class

Student will develop and instruct classmates through a free weight, weight machine, or combined modes. Class program will include a warm-up, main body, cool down, and proper set-up as needed. The student should use creativity when designing their class program that will be 30 to 50 minutes in length.

Leading a cardiovascular fitness class

Student will develop and instruct classmates through a walking, jogging, cardiovascular machines, or group exercise. Class program will include a warm-up, main body, cool down, and proper set-up as needed. The student should use creativity when designing their class program that will be 30 to 50 minutes in length.

Personal Exercise Log: An exercise logbook should be kept, and each student must write they work out that day. The duration of the workout, what was accomplished, sets, reps, intensity, and duration of the workout will be included. This log is more detailed (e.g. Leg Press 150 lbs. x 5 sets x 10 repetitions with 2 minute rests; Hiked for 20 minutes totaling 30,000 steps in 80°F temperatures, on Saturday at Mount Magazine State Park) than the exercise log which will be general information of what was conducted (e.g. Hiked for 20 minutes). The personal exercise log will be turned in on the last day of class.

1-month Exercise Program: Each student oversees designing a one-month exercise program to increase overall physical fitness. It will be up to the student to decide the intensity based on who they expect to train or for themselves. The plan should consist of at least two workouts per week and include a warm-up, main body of a program, and a cool down.

- l. Policy on absences, cheating, plagiarism, etc.

ATTENDANCE POLICY

- 1) Class Attendance and Participation. Attendance is required (See ATTENDANCE POLICY), and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.
- 4) More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!

CELL PHONE / I-PHONE POLICY

- 1) Students must turn off or silence cell phones, i-phone, and pagers while in class and will place them in a designated area in the classroom. If you are seen using these devices you will be asked to leave the classroom and will be counted as an unexcused absence. Computer laptops and tablets may be used for note taking only but if used for e-mailing or purposes other than the current class you will be asked to leave the classroom and will be counted as an unexcused absence.

PLAGIARISM

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. *Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.*

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.
- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

m. Course content (outline of material to be covered in course).

Course Outline

- I. Introduction to Health, Fitness, and Exercise
 - A. Functional anatomy and physiology
 - B. Developing Physical Fitness and a Positive Health Lifestyle

- C. Physical activity, health, and performance with health risk appraisal
- II. Testing and Assessments
 - A. PAR-Q, Medical information sheet
 - B. Resting heart rate, Resting Blood Pressure
 - C. Body composition, Body Weight, Anthropometrics
 - D. Cardiovascular Endurance
 - E. Muscular Fitness: Maximal Strength, Local Endurance, Flexibility
- III. Basic Principles of Exercise Programming
 - A. Basic Principles Weight Training (muscular strength and endurance)
 - 1. Body weight exercises
 - 2. Basic free weight and weight machine exercises
 - B. Basic Principles Cardiovascular Training
 - 1. Walking, Jogging, Treadmill
 - C. Basic Principles Flexibility
 - 1. Static Stretching
 - D. Basic Principles Nutrition and Body Composition
 - 1. How Exercise Programming Improves Your Body
 - 2. Guidelines for a Personal Exercise Program
- IV. Nutrition Basics and Taking Personal Control of Health Status
 - A. Basic nutrition for healthful eating
 - B. Nutrition and caloric balance
 - C. Food guide pyramid
- V. Health locus of control
 - A. Behavior, injury, and legal considerations
 - B. Exercise adherence
 - C. Adherence to Resistance Training Programs
 - D. Adherence to Cardiovascular Training Programs
- VI. Final Exam

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Health and Physical Education	

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammy Ueauer</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
HES	2013	<input checked="" type="radio"/> Spring <input type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Weight Training for Personal Trainers, High School Coaches, and Physical Education		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)		
Weight Train for PT, HSC, PE		

Will this course be cross-listed with another existing course? If so, list course subject and number.
☐ Yes ☒ No _____

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?
 If so, list course subject and number. ☐ Yes ☒ No _____

Is this course repeatable for additional earned hours? ☐ Yes ☒ No How many total hours? _____

Grading: ☒ Standard Letter ☐ P/F ☐ Other _____

Mode of Instruction (check appropriate box):

<input type="radio"/> 01 Lecture	<input checked="" type="radio"/> 02 Lecture/Laboratory	<input type="radio"/> 03 Laboratory only
<input type="radio"/> 05 Practice Teaching	<input type="radio"/> 06 Internship/Practicum	<input type="radio"/> 07 Apprenticeship/Externship
<input type="radio"/> 08 Independent Study	<input type="radio"/> 09 Readings	<input type="radio"/> 10 Special Topics
<input type="radio"/> 12 Individual Lessons	<input type="radio"/> 13 Applied Instruction	<input type="radio"/> 16 Studio Course
<input type="radio"/> 17 Dissertation	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar <input type="radio"/> 98 Other

Does this course require a fee? ☒ Yes ☐ No How Much? Other _____

If selected other list fee type:

☐ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.?
Tech Fit equipment, gymnasium, and outdoor space for mode participation and instruction

Will this course require a special classroom (computer lab, smart classroom, or laboratory)?
Tech Fit, Human Performance Lab, Gymnasium

Answer the following Assessment questions:

- If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Council on Accreditation of Strength and Conditioning Education (CASCE) Guide to Accreditation - Program design and technique for aerobic endurance training**
- If this course is required for the major or minor, complete the following.
 - Provide the program level learning outcome(s) it addresses.
 - Learn the various types of weight training principles, methods and exercises.
 - Develop the student's ability to instruct safe and effective weight training exercise/drills.
 - Learn safe and effective planning and programming to improve an individuals' muscular strength performance.
 - Learn weight training safety protocols, spotting techniques and ability to identify common mistakes compromising exercise safety and limiting efficient exercise technique.
 - Develop the student's ability to safely and effectively perform weightlifting and weight training exercises.
 - Learn the research related to muscular development specific to weightlifting and weight training.

- G. Develop an understanding of the competencies and proficiencies specific to weight training as they relate to the careers of personal training, coaching, and physical education.
2. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- A. Assessment of weightlifting and weight training focused programs using different modes and methods.
- B. Assessment of the practical application of weightlifting and weight training to Personal Training, High School Coaching, and Physical Education Teaching.
- C. Final Examination of weightlifting and weight training knowledge retention
- c. What is the rationale for adding this course? What evidence demonstrates this need?

The purpose of the course is to develop the students' knowledge and ability to apply programming specific to weight training based goals for the fields of Personal Training/Coaching/Teaching. The increase of weight training courses in high schools, addition of high school strength and conditioning coaches, and the increase in youth athletic preparation creates the need for competent practitioners.

For the proposed course, attach a syllabus in Word format that includes: (Items a. through d. should be entered as they should appear in the catalog)

- a. Course subject: **Health and Exercise Science**
- b. Course number: ~~2030~~ **2013**
- c. Catalog course title: **Weight Training for Personal Trainers, High School Coaches, and Physical Education**
- d. Catalog description
 1. Arkansas Course Transfer System (ACTS) course number, if applicable:
 2. Cross-listing:
 3. Offered:
 4. Prerequisites: **HES 1003 Intro Exercise Programming**
 5. Co-requisites
 6. Description: **This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. cleans, snatches, front squats, bent over rows, etc.) that can be integrated into a weight training for the development of muscular strength, hypertrophy, and power. Coaching and teaching strategies will be discusses and practices that includes weight training safety, exercise technique assessment, testing, and programming methods.**
 7. Notes (e.g., information not in description such as course may be repeated for credit)
 8. Contact Hours if different than lecture: **1.5 Lecture three hours, 1.5 Laboratory three hours**
 9. Fees: **\$20.00 for laboratory and equipment maintenance**
- e. Section for Name of instructor, office hours, contact information (telephone, email)
- f. Text required for course: **Strength Training, 2nd Ed. (2017) NSCA -National Strength & Conditioning Association, Lee Brown, Ed. Human Kinetics. Champaign, IL. ISBN: 9781492522089**
- g. Bibliography (supplemental reading list):
 - **Bompa, TO, and Buzzichelli, CA. Periodization: Theory and Methodology of Training, 6th ed. Human Kinetics. Champaign, IL. 2019.**
 - **Epley, B. The path to athletic power. Human Kinetics. Champaign, IL. 2004.***
 - **Fleck, S.J. and W.J. Kraemer. Designing Resistance Training Programs, 4th edition. Human Kinetics. Champaign, IL. 2014.**
 - **Piper, T.J. and M.A. Waller. Power Training. Waller & Piper. Lake in the Hills, IL, 2008.***
 - **Stone, MH, Stone, M, and Sand, WA. Principles and Practice of Resistance Training. Human Kinetics. Champaign, IL. 2007.***
 - **Verstegen, M. and P. Williams. Core Performance. Rodale, Inc. 2004.***
 - ***books used for unique information provided from these texts not available in other textbooks**
- h. Justification/rationale for the course: **The purpose of the course is to develop the students' knowledge and ability to apply programming specific to weight training based goals for the fields of Personal Training, High School Coaching, and Physical Education Teaching. The increase of weight**

training courses in high schools, addition of high school strength and conditioning coaches, and the increase in youth athletic preparation creates the need for competent practitioners.

i. Course objectives

- 1) Become familiar with various types of training principles, methods and exercise instruction to improve an individuals' muscular strength performance.
 - 2) Learn exercise/drill technique for improvement of muscular strength.
 - 3) Describe proper spotting technique and identify/predict common mistakes compromising exercise safety and limiting efficient exercise technique
 - 4) Describe and perform the proper methods for engaging safely in weightlifting and other weight training exercises.
 - 5) Learn the research related to muscular development specific to weightlifting and weight training exercises.
 - 6) Develop an understanding of the competencies and proficiencies of personal training, coaching, and physical education.
- j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)
- k. Assessment methods (include grading policy with specific equivalents for A, B, C):

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Hypertrophy Training Program	= 100
Maximal Strength Training Program	= 100
Strength-speed Training Program	= 100
Strength-endurance Training Program	= 100
Final Weight Training Program for a Team or Training Group Presentation	= 100
Personal Training/Coaching/Teaching Practical	= 100
Final Exam	= 100
Course Total Points	= 700

Program Assignments:

The purpose of this assignment is to improve your knowledge on the development of weight training programs to obtain a specific physical quality. The weight training programs will be a 2-week example (microcycle) of exercises, volume, intensity, exercise order and rest (there other variables) specific to a training goal. The program will have 3 to 5 training days per week that will be 45 to 90-minutes in length that will include a warm-up, main body, and cool-down. The programs will be developed for each of the following four goals over the course of the semester:

1. Hypertrophy
2. Maximal Strength
3. Strength-speed
4. Strength-endurance.

Write a minimum 2 to 4-page paper on how the exercises will achieve the goal of the program. The paper will explain the program, what will be achieved, and how this will be progressed and include 5 peer-reviewed sources required.

Program Presentation:

Develop a 4-week strength and conditioning program for a specific population (e.g. youth, senior), along with a specific goal (e.g. ice hockey, low back strength). Students will have an option list to select the population and goal they will develop a program. The program will be the last 4 weeks of a general preparation phase and will address the following questions. You will need to provide a 1-page summation paper of your program that will include a reference section that has 1-2 textbook(s) and 4-5 peer-reviewed articles that is in correct format. The presentation will be 5-6 minutes in length and does not include question and answer time.

1. Does the program effectively address the goal?

2. Why are the exercises, volume, intensity, and recovery selected?
3. What tests and evaluations are used and why?
4. What references support your S&C plan? (Citations needed) at end of presentation.
5. What type of stretching and warm-up will be used and why?
6. What physiological adaptations do you expect to occur?

Coaching Practical Rubric

Task	Criteria	Low Standards	Moderate Standards	High standards	Pts
1. Attire	Dresses for occasion	Clothing is stained or torn, and inappropriate for activity/class	Clothing and shoes have some dirt but overall clean	Clean shorts, pants, t-shirt or collared short-sleeves, Clean athletic shoes	5
2. Mannerisms	Volume, speed, & clarity, poise	Reads presentation from notes or slides, difficult to hear, multiple unrelated gestures	Speaks clearly at adequate volume, rushes, pauses or makes unrelated gestures (i.e. um, uh), avoids eye contact	Clear, relaxed speech throughout, uses speech to effectively emphasize main points, few nervous gestures, use of eye contact.	5
3. Use of technology and Additional materials	PowerPoint, video, images, audio &/or hand-outs	Disorganized, repetitive, includes every word of presentation in slides. None observed	Slides are concise, organized, minimal repetition. 2-4 observed (may be included in ppt)	Additional details in slide background, transitions, etc. 5 or more observed (may be included in ppt)	15
4. Vocabulary	Correct terminology	Frequent use of slang/text expressions, no explanation of specific terms	Occasional use of slang, explains program specific terms	Professional vocabulary & terminology used throughout	10
5. Writing errors in slides or handouts	Spelling, grammar, punctuation, word use	> 6 errors noticed	4-6 errors noticed	1-3 errors noticed	10
6. Timeframe	Length of class time	Unsuccessfully utilized entire class time ($\leq 75\%$ of class time)	Completed $>75\%$ but $< 90\%$ of class time	Effectively used class time and disseminated information	10
7. Answered questions	Asks for questions, answers questions	Unable to answer or unclear, incorrect answers for 50% of questions	Rambling when answering, answered 75%	Clear, direct answer to all questions, and answered 100%	5

8.Content	Accuracy of information	Information was general; lack of peer-review support; did not address topic	Information had only < 3 professional and 3 peer-review references; presented 50% topic	Information had > 3 professional and >3 peer-review references; presented topic	40
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l. Policy on absences, cheating, plagiarism, etc.:

ATTENDANCE POLICY

- 1) Class Attendance and Participation. Attendance is required (See ATTENDANCE POLICY), and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.
- 4) More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!

PLAGIARISM

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. *Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.*

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.
- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

m. Course content (outline of material to be covered in course).

Course Outline

- I. Basic Planning, Programming, and Application of Weight Training
 - A. General Population versus Athletic Performance
 - B. Strength, Endurance, Power
 - C. Youth (Under 13 years)
 - D. Pre-adolescence and Adolescence
 - E. Adult 18+ years old
 - F. Senior Population >60 years old

- II. Weight Training Planning and Programming
 - A. Planning long-term progressions and Testing
 - B. Programming for week and session
 - C. Developing an school curriculum
 - D. Developing an training program
 - E. Developing an youth S&C program
 - 1. Weight Training Goals
 - a. Maximal Strength
 - b. Submaximal Strength
 - c. Strength-Speed
 - d. Strength-Endurance
 - e. Muscular Hypertrophy
- III. Deadlifts
 - A. Conventional-Style
 - B. Sumo-Style
 - C. Stiffed-Legged/ "Romanian DL"
 - D. Dumbbell and Hex Bar DL
 - E. Coaching/Instruction of Weight-training
- IV. Squats
 - A. Belt, Back, and Front Squats
 - B. Overhead Squats
 - C. Split Squats and Lunges
 - D. Step-ups and Rear-leg Elevated Split Squats
 - E. Coaching/Instruction of Weight-training
- V. Weightlifting Movements
 - A. Full, Power, Muscle Snatch & Clean
 - B. Start Positions: Floor; Hang and Block Hip, Mid-thigh, Above Knee, Below Knee
 - C. Pulls, High Pulls, Push Presses, Push Jerk, Squat Jerks, and Split Jerks
 - D. Coaching/Instruction of Weight-training
- VI. Pressing Exercises
 - A. Machine, Dumbbell and Barbell Shoulder Press
 - B. Machine, Dumbbell and Barbell Bench Press Supine, Incline, Decline
 - C. Machine and Dumbbell Chest Fly, Rear Delt. Fly
 - D. Coaching/Instruction of Weight-training
- VII. Pulling Exercises
 - A. Machine, Dumbbell and Barbell Rowing
 - B. Lat Pulldown, Pull-up, Chin-up
 - C. Coaching/Instruction of Weight-training
- VIII. Posterior Chain and Trunk
 - A. Good Morning, Reverse Hyper Extension, Nordic Curls
 - B. Trunk Twists, MB Sit-ups, "Land-mine" Barbell Core trainer
 - C. Coaching/Instruction of Weight-training
- IX. Additional Resistance Training
 - A. Elastic Bands and Tubes
 - B. Kettlebell Specific Exercises
 - C. Coaching/Instruction of Weight-training
- X. Present Programs
- XI. Personal Training/Coaching/Teaching Practical
- XII. Exam Final (Finals Week)

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Health and Physical Education	

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammyleauee</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
HES	2023	<input checked="" type="radio"/> Spring <input type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Endurance Programming and Conditioning		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)		
Endurance Conditioning		

Will this course be cross-listed with another existing course? If so, list course subject and number.
☐ Yes ☒ No _____

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?
 If so, list course subject and number. ☐ Yes ☒ No _____

Is this course repeatable for additional earned hours? ☐ Yes ☒ No How many total hours? _____

Grading: ☒ Standard Letter ☐ P/F ☐ Other _____

Mode of Instruction (check appropriate box):

<input type="radio"/> 01 Lecture	<input checked="" type="radio"/> 02 Lecture/Laboratory	<input type="radio"/> 03 Laboratory only
<input type="radio"/> 05 Practice Teaching	<input type="radio"/> 06 Internship/Practicum	<input type="radio"/> 07 Apprenticeship/Externship
<input type="radio"/> 08 Independent Study	<input type="radio"/> 09 Readings	<input type="radio"/> 10 Special Topics
<input type="radio"/> 12 Individual Lessons	<input type="radio"/> 13 Applied Instruction	<input type="radio"/> 16 Studio Course
<input type="radio"/> 17 Dissertation	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar <input type="radio"/> 98 Other

Does this course require a fee? ☒ Yes ☐ No How Much? Other _____

If selected other list fee type:

☐ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.?
Tech Fit equipment, gymnasium, and outdoor space for mode participation and instruction

Will this course require a special classroom (computer lab, smart classroom, or laboratory)?
Tech Fit, Human Performance Lab, Gymnasium

Answer the following Assessment questions:

- If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Council on Accreditation of Strength and Conditioning Education (CASCE) Guide to Accreditation - Program design and technique for aerobic endurance training**
- If this course is required for the major or minor, complete the following.
 - Provide the program level learning outcome(s) it addresses.
 - Become familiar with various types of training principles, methods and exercise instruction to improve an individuals' endurance performance.
 - Learn exercise/drill technique for improvement of cardiovascular, aerobic, and anaerobic endurance.
 - Describe proper/safe exercise technique, identify/predict common mistakes compromising exercise safety, and establish a safe training environment.
 - Describe, perform, and coach/instruct the proper methods for engaging safely in cardiovascular, aerobic, and anaerobic endurance exercises.
 - Learn the research related to cardiovascular, aerobic, and anaerobic endurance training.
 - Develop an understanding of the competencies and proficiencies of personal training, and coaching.

2. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
 - A. **Assessment of endurance focused programs using different modes and methods.**
 - B. **Assessment of the practical application of Personal Training/Coaching/Teaching**
 - C. **Final Examination of knowledge retention**
- c. What is the rationale for adding this course? What evidence demonstrates this need?
The purpose of the course is to develop the students' knowledge and ability to apply programming specific to endurance based goals for the fields of Personal Training/Coaching/Teaching. There are no courses that address the career needs of the students' specific to various endurance training modes and methods.

For the proposed course, attach a syllabus in Word format that includes: (Items a. through d. should be entered as they should appear in the catalog)

- a. Course subject: **Health and Exercise Science**
- b. Course number: ~~2040~~ **2023**
- c. Catalog course title: **Endurance Programming and Conditioning**
- d. Catalog description
 1. Arkansas Course Transfer System (ACTS) course number, if applicable: **N/A**
 2. Cross-listing: **N/A**
 3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring)
 4. Prerequisites: **HES 1003 Intro Exercise Programming**
 5. Co-requisites: **N/A**
 6. Description: **This course is designed to provide students the opportunity to understand the various methods of coaching and teaching endurance focused exercises, activities, and programming. Basic endurance principles, techniques, and application of programming will meet the instructional needs of personal trainers, strength & conditioning coaches, and sport coaches.**
 7. Notes (e.g., information not in description such as course may be repeated for credit): **N/A**
 8. Contact Hours if different than lecture: **Lecture 1.5 hours, laboratory 1.5 hours**
 9. Fees (e.g., \$36 art fee): **\$20.00**
- e. Section for Name of instructor, office hours, contact information (telephone, email)
- f. Text required for course: **Developing Endurance (2012) NSCA -National Strength & Conditioning Association, Ben Reuter, Ed. Human Kinetics. Champaign, IL. ISBN: 9780736083270**
- g. Bibliography (supplemental reading list):
 - A. **Haff, GG, and Triplett, NT, Editors. (2016) Essentials of strength training and conditioning, 4th ed. Human Kinetics, Champaign, IL. ISBN: 978-1-4925-0162-6**
 - B. **International Council for Coaching Excellence, Association of Summer Olympic International Federations and Leeds Metropolitan University. (2013) *International Sport Coaching Framework*, v.1.2. Human Kinetics, Champaign, IL (ISBN-13: 9781450471275).**
 - C. **Mujika, I. Tapering and Peaking for Optimal Performance. Human Kinetics. Champaign, IL. 2009.**
- h. Justification/rationale for the course: **The purpose of the course is to develop the students' knowledge and ability to apply programming specific to endurance based goals for the fields of Personal Training/Coaching/Teaching. There are no courses that address the career needs of the students' specific to various endurance training modes and methods.**
- i. Course objectives:
 - A. **Become familiar with various types of training principles, methods and exercise instruction to improve an individuals' endurance performance.**
 - B. **Learn exercise/drill technique for improvement of cardiovascular, aerobic, and anaerobic endurance.**
 - C. **Describe proper/safe exercise technique, identify/predict common mistakes compromising exercise safety, and establish a safe training environment.**
 - D. **Describe, perform, and coach/instruct the proper methods for engaging safely in cardiovascular, aerobic, and anaerobic endurance exercises.**
 - E. **Learn the research related to cardiovascular, aerobic, and anaerobic endurance training.**

F. Develop an understanding of the competencies and proficiencies of personal training, and coaching.

j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)

k. Assessment methods (include grading policy with specific equivalents for A, B, C)

Grading Scale (%): 100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

Grade Title	Points
Machine based Training Program	= 100
Field (Outdoor) based Training Program	= 100
Group Endurance Training Program	= 100
Interval based Training Program	= 100
Final Endurance Program for a Team or Training Group Presentation	= 100
Personal Training/Coaching/Teaching Practical	= 100
Final Exam	= 100
Course Total Points	= 700

l. Policy on absences, cheating, plagiarism, etc.

ATTENDANCE POLICY

- 1) Class Attendance and Participation. Attendance is required (See ATTENDANCE POLICY), and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.
- 4) More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!

PLAGIARISM

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. *Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.*

Plagiarism is considered a serious academic offense and may take the following forms:

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- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.
- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

m. Course content (outline of material to be covered in course).

Course Outline

- I. Basic Planning, Programming, and Application
 - A. General Population versus Athletic Performance
 - B. Cardiovascular, aerobic, and anaerobic endurance
 - C. Youth (Under 13 years)
 - D. Pre-adolescence and Adolescence
 - E. Adult 18+ years old
 - F. Senior Population >60 years old
- II. Planning and Programming for cardiovascular, aerobic, and anaerobic endurance
 - A. Planning long-term progressions and Testing
 - B. Programming for week and session
 - C. Developing a school curriculum
 - D. Developing a training program
 - E. Developing a youth S&C program
- III. Cardiovascular, aerobic, and anaerobic endurance Machines
 - A. Treadmills (Motorized and Self-Powered)
 - B. Ellipticals
 - C. Cycles (Upright, Recumbent, Fan-"Airdyne")
 - D. Stair Climbers
 - E. Rowers
- IV. Aerobic Conditioning (Jogging, Running, Cycling, Swimming)
 - A. Long-Slow Distance Training
 - B. Fartleks
 - C. Tempo/Pace
 - D. Interval
 - E. Maximal Lactate Steady State Training
- V. Aerobic/Anaerobic Conditioning
 - A. High Intensity Interval Training
 - B. Circuit Training Methods
 - C. Medicine Ball and Plyometric Tempos
 - D. Repeated Sprint Intervals
- VI. Additional Endurance Training Methods
 - A. Battling Ropes
 - B. Group Exercise Class
 - 1. Low impact
 - 2. Step
 - C. Altitude and Hypoxic Training
- VII. Present Programs
- VIII. Personal Training/Coaching/Teaching Practical
- IX. Exam Final (Finals Week)

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Health and Physical Education	

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammyueauu</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
HES	3013	<input checked="" type="radio"/> Spring <input type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Coaching Power, Speed, and Agility		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)		
Coaching Power, Speed, Agility		

Will this course be cross-listed with another existing course? If so, list course subject and number.
☐ Yes ☒ No _____

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?
 If so, list course subject and number. ☐ Yes ☒ No _____

Is this course repeatable for additional earned hours? ☐ Yes ☒ No How many total hours? _____

Grading: ☒ Standard Letter ☐ P/F ☐ Other _____

Mode of Instruction (check appropriate box):

<input type="radio"/> 01 Lecture	<input checked="" type="radio"/> 02 Lecture/Laboratory	<input type="radio"/> 03 Laboratory only
<input type="radio"/> 05 Practice Teaching	<input type="radio"/> 06 Internship/Practicum	<input type="radio"/> 07 Apprenticeship/Externship
<input type="radio"/> 08 Independent Study	<input type="radio"/> 09 Readings	<input type="radio"/> 10 Special Topics
<input type="radio"/> 12 Individual Lessons	<input type="radio"/> 13 Applied Instruction	<input type="radio"/> 16 Studio Course
<input type="radio"/> 17 Dissertation	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar <input type="radio"/> 98 Other

Does this course require a fee? ☒ Yes ☐ No How Much? Other _____

If selected other list fee type:

☐ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.?
Tech Fit equipment, gymnasium, and outdoor space for mode participation and instruction

Will this course require a special classroom (computer lab, smart classroom, or laboratory)?
Tech Fit, Human Performance Lab, Gymnasium

Answer the following Assessment questions:

- If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Council on Accreditation of Strength and Conditioning Education (CASCE) Guide to Accreditation - Program design and technique for aerobic endurance training**
- If this course is required for the major or minor, complete the following.
 - Provide the program level learning outcome(s) it addresses.
 - Learn the various types of training principles, methods and exercises instruction specific to muscular power, speed, agility, and change of direction.
 - Develop the ability to coach/instruct safe and effective exercise and drill technique.
 - Learn safe and effective planning and programming to improve an individual's power, speed, agility, and change of direction.
 - Learn safety protocols, establish a safe training environment, and ability to identify common mistakes compromising exercise safety and limiting efficient exercise technique.
 - Develop the student's ability to safely and effectively perform plyometrics, shock exercises, sprints, agility, and change of direction.
 - Learn the research related to muscular development specific to power, speed, agility, and change of direction training.

- G. Develop an understanding of the competencies and proficiencies for personal training, and coaching.
- 2. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- A. Assessment of power, speed, agility, and change of direction focused programs using different modes and methods.
- B. Assessment of the practical application of Personal Training/Coaching/Teaching.
- C. Final Examination of knowledge retention
- c. What is the rationale for adding this course? What evidence demonstrates this need?

The purpose of the course is to develop the students' knowledge and ability to apply programming specific to power, speed, agility, and change of direction based goals for the fields of Personal Training/Coaching/Teaching. The increase of demand in high schools, addition of high school strength and conditioning coaches, and the increase in youth athletic preparation creates the need for competent practitioners.

For the proposed course, attach a syllabus in Word format that includes: (Items a. through d. should be entered as they should appear in the catalog)

- a. Course subject: **Health and Exercise Science**
- b. Course number: ~~3010~~ **3013**
- c. Catalog course title: **Coaching Power, Speed, and Agility**
- d. Catalog description
 - 1. Arkansas Course Transfer System (ACTS) course number, if applicable
 - 2. Cross-listing
 - 3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring)
 - 4. Prerequisites: **HES 1003 Intro Exercise Programming**
 - 5. Co-requisites
 - 6. Description: **This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. plyometrics, sprints, 5-10-5, etc.) that can be integrated into a strength and conditioning programs for the improvement in athletic performance.**
 - 7. Notes (e.g., information not in description such as course may be repeated for credit)
 - 8. Contact Hours if different than lecture: **1.5 Lecture three hours, 1.5 Laboratory three hours**
 - 9. Fees: **\$20.00 for laboratory and equipment maintenance**
- e. Section for Name of instructor, office hours, contact information (telephone, email)
- f. Text required for course:
 - **Developing Agility and Quickness-2nd Edition (2019) NSCA -National Strength & Conditioning Association, Jay Dawes, Ed. Human Kinetics. Champaign, IL. ISBN: 9781492569510**
 - **Developing Power (2017) NSCA -National Strength & Conditioning Association, Mike McGuigan, Ed. Human Kinetics. Champaign, IL. ISBN: 9780736095266**
- g. Bibliography (supplemental reading list):
 - **Haff, GG, and Triplett, NT, Editors. (2016) Essentials of strength training and conditioning, 4th ed. Human Kinetics, Champaign, IL. ISBN: 978-1-4925-0162-6**
 - **International Council for Coaching Excellence, Association of Summer Olympic International Federations and Leeds Metropolitan University. (2013) International Sport Coaching Framework, v.1.2. Human Kinetics, Champaign, IL (ISBN-13: 9781450471275).**
 - **Piper, T.J. and M.A. Waller. Power Training. Waller & Piper. Lake in the Hills, IL. 2008.**
 - **Verstegen, M. and P. Williams. Core Performance. Rodale, Inc. 2004.**
- h. Justification/rationale for the course: **The purpose of the course is to develop the students' knowledge and ability to apply programming specific to power, speed, agility, and change of direction based goals for the fields of Personal Training/Coaching/Teaching. The increase of demand in high schools, addition of high school strength and conditioning coaches, and the increase in youth athletic preparation creates the need for competent practitioners.**
- i. Course objectives:

- 1) Become familiar with various types of training principles, methods and exercise instruction to improve an individuals' muscular power performance.
 - 2) Learn exercise/drill technique for improvement of muscular power, speed, agility, and change of direction.
 - 3) Describe proper/safe exercise technique, identify/predict common mistakes compromising exercise safety, and establish a safe training environment.
 - 4) Describe, perform, and coach/instruct the proper methods for engaging safely in plyometrics, shock exercises, sprints, agility, and change of direction.
 - 5) Learn the research related to muscular development specific to power, speed, agility, and change of direction training.
 - 6) Develop an understanding of the competencies and proficiencies for personal training, and coaching.
- j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)
- k. Assessment methods (include grading policy with specific equivalents for A, B, C)

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Lower Body Plyometric Training Program	= 100
Upper Body Plyometric Training Program	= 100
Linear Speed Training Program	= 100
Agility, Change of Direction Training Program	= 100
Final Power and SAQ Program for a Team or Training Group Presentation	= 100
Personal Training/Coaching/Teaching Practical	= 100
Final Exam	= 100
Course Total Points	= 700

Program Assignments:

The purpose of this assignment is to improve your knowledge on the development of training programs to obtain a specific physical quality. The weight training programs will be a 2-week example (microcycle) of exercises, volume, intensity, exercise order and rest (there other variables) specific to a training goal. The program will have 3 to 5 training days per week that will be 45 to 90-minutes in length that will include a warm-up, main body, and cool-down. The programs will be developed for each of the following four goals over the course of the semester:

1. Lower Body Plyometric
2. Upper Body Plyometric
3. Linear Speed
4. Agility, Change of Direction

Write a minimum 2 to 4-page paper on how the exercises will achieve the goal of the program. The paper will explain the program, what will be achieved, and how this will be progressed and include 5 peer-reviewed sources required.

Program Presentation:

Develop a 4-week strength and conditioning program for a specific population (e.g. youth, senior), along with a specific goal (e.g. lacrosse, hiking ability). Students will have an option list to select the population and goal they will develop a program. The program will be the last 4 weeks of a general preparation phase and will address the following questions. You will need to provide a 1-page summation paper of your program that will include a reference section that has 1-2 textbook(s) and 4-5 peer-reviewed articles that is in correct format. The presentation will be 5-6 minutes in length and does not include question and answer time.

1. Does the program effectively address the goal?
2. Why are the exercises, volume, intensity, and recovery selected?
3. What tests and evaluations are used and why?
4. What references support your S&C plan? (Citations needed) at end of presentation.
5. What type of stretching and warm-up will be used and why?
6. What physiological adaptations do you expect to occur?
- I. Policy on absences, cheating, plagiarism, etc.:

ATTENDANCE POLICY

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- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.
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m. Course content (outline of material to be covered in course).

Course Outline

- I. Basic Planning, Programming, and Application
 - A. General Population versus Athletic Performance
 - B. Power, Speed, Agility, Change of Direction
 - C. Youth (Under 13 years)
 - D. Pre-adolescence and Adolescence
 - E. Adult 18+ years old

- F. Senior Population >60 years old
- II. Planning and Programming
 - A. Planning long-term progressions and Testing
 - B. Programming for week and session
 - C. Developing a school curriculum
 - D. Developing a training program
 - E. Developing a youth S&C program
- III. Movement Patterns
 - A. Hops
 - B. Jumps
 - C. Leaps
 - D. Bounding
 - E. Skipping
- IV. Lower Body Plyometrics
 - A. Categories (Squat (Static) Jump; Countermovement; Barrier Jumps; Depth Jumps)
 - 1. Low Intensity
 - 2. Medium Intensity
 - 3. High Intensity
 - 4. Shock
- V. Upper Body Plyometrics (Medicine Ball Throws; Puts; Ballistic Push-ups)
 - A. Categories
 - 1. Low Intensity
 - 2. Medium Intensity
 - 3. High Intensity
 - 4. Shock
- VI. Speed
 - A. Start Positions: 2-point, 3-point, 4-point, In-motion
 - B. Sprint Technique Drills
 - C. Peak Velocity and Acceleration
 - D. Deceleration, Agility, Change of Direction
- VII. Present Programs
- VIII. Personal Training/Coaching/Teaching Practical
- IX. Exam Final (Finals Week)

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ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Health and Physical Education	

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christine Austin</i>	8.4.2021
Registrar	<i>Tammy Weaver</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
HES	4043	<input checked="" type="radio"/> Spring <input type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Exercise Physiology Lab		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)		
Exercise Physiology Lab		

Will this course be cross-listed with another existing course? If so, list course subject and number.
☐ Yes ☒ No _____

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?
 If so, list course subject and number. ☐ Yes ☒ No _____

Is this course repeatable for additional earned hours? ☐ Yes ☒ No How many total hours? _____

Grading: ☒ Standard Letter ☐ P/F ☐ Other _____

Mode of Instruction (check appropriate box):

<input type="radio"/> 01 Lecture	<input type="radio"/> 02 Lecture/Laboratory	<input checked="" type="radio"/> 03 Laboratory only
<input type="radio"/> 05 Practice Teaching	<input type="radio"/> 06 Internship/Practicum	<input type="radio"/> 07 Apprenticeship/Externship
<input type="radio"/> 08 Independent Study	<input type="radio"/> 09 Readings	<input type="radio"/> 10 Special Topics
<input type="radio"/> 12 Individual Lessons	<input type="radio"/> 13 Applied Instruction	<input type="radio"/> 16 Studio Course
<input type="radio"/> 17 Dissertation	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar <input type="radio"/> 98 Other

Does this course require a fee? ☒ Yes ☐ No How Much? \$20.00 ☐ Other _____

If selected other list fee type: Lab Exercise Science

☐ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?
 Spring Only

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.?
Tech Fit equipment, Human Performance Lab, Strength and Conditioning Lab, maintenance of equipment and software update.

Will this course require a special classroom (computer lab, smart classroom, or laboratory)?
Tech Fit, Human Performance Lab, Gymnasium

Answer the following Assessment questions:

- If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Council on Accreditation of Strength and Conditioning Education (CASCE) Guide to Accreditation - Program design and technique for aerobic endurance training**
- If this course is required for the major or minor, complete the following.
 - Provide the program level learning outcome(s) it addresses.
 - Learn to analyze and interpret physiological systems' responses to physical activity, exercise and sport.**
 - Learn to analyze and interpret cardiovascular endurance, muscular strength & endurance, flexibility, body composition.**
 - Learn when to select and apply lab and field tests.**
 - Learn to analyze and interpret laboratory and field tests of athletes and other active individuals, and how this information can be used in training plans and programs.**
 - Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
 - Assessment of the student's ability to conduct and develop a report based on tests.**

B. Ability to develop training programs based on test results.

C. Final Examination of knowledge retention

c. What is the rationale for adding this course? What evidence demonstrates this need?

The purpose of the course is to develop the students' knowledge and ability to apply programming specific to endurance based goals for the fields of Personal Training/Coaching/Teaching. There are no

For the proposed course, attach a syllabus in Word format that includes: **(Items a. through d. should be entered as they should appear in the catalog)**

a. Course subject: **Health and Exercise Science**

b. Course number: **4043**

c. Catalog course title: **Exercise Physiology Lab**

d. Catalog description

1. Arkansas Course Transfer System (ACTS) course number, if applicable

2. Cross-listing

3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring): **Spring Only**

4. Prerequisites: **HES 4033 ?**

5. Co-requisites

6. Description: **This course will involve the study, calculation, and understanding of how exercise physiology is tested, assessed, and applies to training, athletics, and physical activity. Laboratory experiences will apply to the concepts bioenergetics, fatigue, oxygen consumption, muscular performance, and cardiovascular functions.**

7. Notes (e.g., information not in description such as course may be repeated for credit)

8. Contact Hours if different than lecture: **Laboratory 3 hours**

9. Fees (e.g., \$36 art fee): **\$20 Lab Fee**

e. Section for Name of instructor, office hours, contact information (telephone, email)

f. Text required for course: **Laboratory Manual for Exercise Physiology 2nd Ed. (2019) G. Gregory Haff Charles Dumke. Human Kinetics. Champaign, IL. ISBN: 9781492536949**

g. Bibliography (supplemental reading list):

- **American College of Sports Medicine. (2017) ACSM's Guidelines for Exercise Testing and Prescription, 10th ed. Wolters Kluwer Health, Inc. ISBN: 9781496339065**

- **Peter Maud and Carl Foster (2006) Physiological Assessment of Human Fitness, 2nd ed. Human Kinetics. ISBN: 9780736046336**

- **William D. McArdle, Frank I. Katch, NS Victor L. Katch (2014) Exercise Physiology, 8th ed. Wolters Kluwer Health, Inc. ISBN: 9781451191554**

- **Scott Powers, Edward Howley and John Quindry. (2021) Exercise Physiology: Theory and Application to Fitness and Performance, 11th ed. McGraw Hill. ISBN10: 1260237761, ISBN13: 9781260237764**

h. Justification/rationale for the course: **The course is designed to prepare students that will be pursuing a graduate or pre-allied health programs following completion of their undergraduate program.**

i. Course objectives:

1. **Learn to analyze and interpret physiological systems' responses to physical activity, exercise and sport.**

2. **Learn to analyze and interpret cardiovascular endurance, muscular strength & endurance, flexibility, body composition.**

3. **Learn when to select and apply lab and field tests.**

4. **Learn to analyze and interpret laboratory and field tests of athletes and other active individuals, and how this information can be used in training plans and programs.**

j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)

k. Assessment methods (include grading policy with specific equivalents for A, B, C):

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Initial Physical Screen Lab	= 100
Flexibility Lab	= 100
Body Composition Lab	= 100
Cardiovascular, Blood Pressure, ECG Lab	= 100
Pulmonary Function Testing Lab	= 100
Submaximal Exercise Oxygen Consumption Testing Lab	= 100
Maximal Exercise Oxygen Consumption Testing Lab	= 100
Anaerobic Capacity Lab	= 100
Anaerobic Power Lab	= 100
Muscular Strength Lab	= 100
Muscular Power Lab	= 100
Final Lab Practical Exam	= 100
Course Total Points	= 1200
I. Policy on absences, cheating, plagiarism, etc.	
Attendance Policy	
1) Class Attendance and Participation. Attendance is required (See ATTENDANCE POLICY), and there are very few go excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.	
2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.	
3) All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.	
4) More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!	
Cell Phone / i-Phone Policy	
1) Students must turn off or silence cell phones, i-phone, and pagers while in class and will place them in a designated area in the classroom. If you are seen using these devices you will be asked to leave the classroom and will be counted as an unexcused absence. Computer laptops and tablets may be used for note taking only but if used for e-mailing or purposes other than the current class you will be asked to leave the classroom and will be counted as an unexcused absence.	
Plagiarism	
Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.	
Plagiarism is considered a serious academic offense and may take the following forms:	
1) Copying word-for-word from another source and not giving that source credit.	
2) Cutting and pasting from an Internet or database source without giving that source credit.	
3) Paraphrasing the work of another and not giving that source credit.	
4) Adopting a particularly apt phrase as your own.	
5) Reproducing any published or copyrighted artwork, both fine and commercial.	
6) Digitally duplicating or downloading any copyrighted software, programs or files.	
7) Paraphrasing another's line of thinking in the development of a topic as your own.	
8) Receiving excessive help from a friend or elsewhere, or using another project as your own.	

9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

m. Course content (outline of material to be covered in course).

Course Outline

- I. Testing and Assessing Variables
 - A. Measurement Terminology
 - B. Interpretation and Reporting of Data
- II. Initial Physical Screening
 - A. Informed Consents and PAR-Q
 - B. Health History Questionnaires
 - C. Disease Risk Stratification
- III. Flexibility
 - A. Direct and Indirect ROM Assessment
 - B. Laboratory Tests
- IV. Body Composition
 - A. BMI and Circumference Measurements
 - B. Measuring Skinfold Thickness
 - C. Hydrodensitometry
- V. Cardiovascular System
 - A. Measurement of Heart Rate
 - B. Blood Pressure Measurements and Responses to Exercise
 - C. Electrocardiograph Measurements
- VI. Pulmonary System
 - A. Pulmonary Function Testing
 - B. Lung Volumes, Capacities, and Ventilatory Limitations
- VII. Aerobic Capacity, Power, and Functions
 - A. Resting Metabolic Rate
 - B. Oxygen Uptake During Exercise and Recovery
 - C. Submaximal Exercise Testing
 - D. Maximal Oxygen Consumption
 1. Graded Treadmill $\dot{V}O_{2\max}$ Test
 2. Cycle Ergometer $\dot{V}O_{2\max}$ Test
 - E. Laboratory Tests
- VIII. Anaerobic Capacity, Power, and Functions
 - A. Blood Lactate Threshold Assessment
 - B. Bosco Test for Estimating Power Endurance
 - C. Yo-Yo Intermittent Recovery Test
 - D. Wingate Anaerobic Test for Determining Anaerobic Cycling Power
- IX. Muscular Performance and Fitness
 - A. Léger 20 m Shuttle Run Test
 - B. Maximal Upper-Body Strength
 - C. Maximal Lower-Body Strength
 - D. Maximal Handgrip Strength
 - E. Upper-Body Muscular Endurance
 - F. Sprinting Performance
 - G. Jumping Performance
 1. Eccentric Utilization Ratio
- X. Final Lab Practical Exam

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE ADDITION

Department Initiating Proposal	Date
Health and Physical Education	

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christie Austin</i>	8.4.2021
Registrar	<i>Gammy Wedder</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)	Effective Term:
HES	4053	<input checked="" type="radio"/> Spring <input type="radio"/> Summer I
Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)		
Biomechanics		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript)		
Biomechanics		

Will this course be cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Will this course be cross-listed with a course currently not in the undergraduate or graduate catalog?

If so, list course subject and number. ☐ Yes ☒ No

Is this course repeatable for additional earned hours? ☐ Yes ☒ No How many total hours?

Grading: ☒ Standard Letter ☐ P/F ☐ Other

Mode of Instruction (check appropriate box):

- | | | |
|---|--|---|
| <input type="radio"/> 01 Lecture | <input checked="" type="radio"/> 02 Lecture/Laboratory | <input type="radio"/> 03 Laboratory only |
| <input type="radio"/> 05 Practice Teaching | <input type="radio"/> 06 Internship/Practicum | <input type="radio"/> 07 Apprenticeship/Externship |
| <input type="radio"/> 08 Independent Study | <input type="radio"/> 09 Readings | <input type="radio"/> 10 Special Topics |
| <input type="radio"/> 12 Individual Lessons | <input type="radio"/> 13 Applied Instruction | <input type="radio"/> 16 Studio Course |
| <input type="radio"/> 17 Dissertation | <input type="radio"/> 18 Activity Course | <input type="radio"/> 19 Seminar <input type="radio"/> 98 Other |

Does this course require a fee? ☒ Yes ☐ No How Much? \$20.00 Other

If selected other list fee type: Lab Exercise Science

☐ Elective ☒ Major ☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

If course is required by major/minor, how frequently will course be offered?

Fall Only

Will this course require any special resources such as unusual maintenance costs, library resources, special software, distance learning equipment, etc.?

Tech Fit equipment, Human Performance Lab, Strength and Conditioning Lab, maintenance of equipment and software update.

Will this course require a special classroom (computer lab, smart classroom, or laboratory)?

Tech Fit, Human Performance Lab, Gymnasium

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Council on Accreditation of Strength and Conditioning Education (CASCE) Guide to Accreditation - Program design and technique for aerobic endurance training**
- b. If this course is required for the major or minor, complete the following.
 1. Provide the program level learning outcome(s) it addresses.
 - A. **Learn to analyze and interpret how the neuromuscular system functions.**
 - B. **Learn to analyze and interpret linear and angular kinematics during human movement.**
 - C. **Learn to analyze and interpret linear and angular kinetics during human movement.**
 - D. **Develop an understanding and knowledge to quantify the variables of biomechanics in quantitative and qualitative reports.**
 - E. **Develop an understanding of how to apply the biomechanical concepts to exercise and athletics.**
 2. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
 - A. **Assessment of the student's ability to conduct and develop a report based on tests.**

B. Assessment of student's retention of kinetic and kinematic knowledge.

C. Ability to develop training programs based on test results.

D. Final Examination of knowledge retention

c. What is the rationale for adding this course? What evidence demonstrates this need?

The purpose of the course is to develop the students' knowledge and ability to apply programming specific to endurance based goals for the fields of Personal Training/Coaching/Teaching. There are no

For the proposed course, attach a syllabus in Word format that includes: **(Items a. through d. should be entered as they should appear in the catalog)**

a. Course subject: **Health and Exercise Science**

b. Course number: **4053**

c. Catalog course title: **Biomechanics**

d. Catalog description

1. Arkansas Course Transfer System (ACTS) course number, if applicable

2. Cross-listing

3. Offered (e.g., Fall only, Spring only. Do not enter if offer course fall and spring): **Fall Only**

4. Prerequisites: **PE 4033**

5. Co-requisites

6. Description: **This course will involve the study, calculation, and understanding of the biomechanical principles that contribute to human movements, exercise, and athletics. Laboratory experiences of biomechanical principles through kinematic and kinetic analysis will facilitate advancement of the students understanding of human/athletic performance.**

7. Notes (e.g., information not in description such as course may be repeated for credit)

8. Contact Hours if different than lecture: **Laboratory 3 hours**

9. Fees (e.g., \$36 art fee): **\$20 Lab Fee**

e. Section for Name of instructor, office hours, contact information (telephone, email)

f. Text required for course: **Applied Sport Mechanics 4th Ed. (2019) Brendan Burkett. Human Kinetics. Champaign, IL. ISBN: 9781492558439**

g. Bibliography (supplemental reading list):

- **Roger Enoka (2015) Neuromechanics of Human Movement, 5th ed. Human Kinetics. ISBN: 9781450458801**

- **Peter McGinnis (2021) Biomechanics of Sport and Exercise, 4th ed. Human Kinetics. ISBN: 9781492571407**

- **Gordon Robertson, Graham Caldwell, Joseph Hamill, and Saunders Whittlesey (2014) Research Methods in Biomechanics, 2nd ed. Human Kinetics. ISBN: 9781492576334**

- **Vladimir M. Zatsiorsky, William J. Kraemer, and Andrew C. Fry (2021) Science and Practice of Strength Training, 3rd ed. Human Kinetics. ISBN: 9781492592006**

- **Peter Maud and Carl Foster (2006) Physiological Assessment of Human Fitness, 2nd ed. Human Kinetics. ISBN: 9780736046336**

h. Justification/rationale for the course: **The course is designed to prepare students that will be pursuing a graduate or pre-allied health programs following completion of their undergraduate program.**

i. Course objectives:

1) **Learn to analyze and interpret how the neuromuscular system functions.**

2) **Learn to analyze and interpret linear and angular kinematics during human movement.**

3) **Learn to analyze and interpret linear and angular kinetics during human movement.**

4) **Develop an understanding and knowledge to quantify the variables of biomechanics in quantitative and qualitative reports.**

5) **Develop an understanding of how to apply the biomechanical concepts to exercise and athletics.**

j. Description of how course meets general education objectives (courses included in the general education component should show how the course meets one or more of the objectives contained in General Education Objectives listed in undergraduate catalog)

k. Assessment methods (include grading policy with specific equivalents for A, B, C):

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Velocity Lab	= 100
Acceleration and Deceleration Lab	= 100
Force Lab	= 100
Power Lab	= 100
Impulse-Momentum Lab	= 100
Sport/Lifting Joint Angle Displacement Lab	= 100
Sport/Lifting Joint Angle Velocity Lab	= 100
Isokinetic Lower Body Lab	= 100
Isokinetic Upper Body Lab	= 100
Stability/Balance Lab	= 100
Sport Movement Analysis Lab	= 100
Exam 1 + Exam 2 + Exam 3	= 300
Final Exam	= 100
Course Total Points	= 1500

I. Policy on absences, cheating, plagiarism, etc.

Attendance Policy

- 1) **Class Attendance and Participation.** Attendance is required (See ATTENDANCE POLICY), and there are very few go excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.
- 4) More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!

Cell Phone / i-Phone Policy

- 1) Students must turn off or silence cell phones, i-phone, and pagers while in class and will place them in a designated area in the classroom. If you are seen using these devices you will be asked to leave the classroom and will be counted as an unexcused absence. Computer laptops and tablets may be used for note taking only but if used for e-mailing or purposes other than the current class you will be asked to leave the classroom and will be counted as an unexcused absence.

Plagiarism

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.

- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

m. Course content (outline of material to be covered in course).

Course Outline

- I. Neuromuscular Application
 - A. Sport Movements/Mechanics
 - B. Exercise Mechanics
- II. Linear Kinematics
 - A. Sport Movements and Exercise Mechanics
 - B. Velocity Lab
 - C. Acceleration and Deceleration Lab
- III. Linear Kinetics
 - A. Sport Movements and Exercise Mechanics
 - B. Force Lab
 - C. Power Lab
 - D. Impulse-Momentum Lab
 - E. Exam 1
- IV. Angular Kinematics
 - A. Sport Movements and Exercise Mechanics
 - B. Sport/Lifting Joint Angle Displacement Lab
 - C. Sport/Lifting Joint Angular Velocity Lab
 - D. Throwing and Kicking Analysis Lab
- V. Angular Kinetics
 - A. Sport Movements and Exercise Mechanics
 - B. Isokinetic Lower Body Lab
 - C. Isokinetic Upper Body Lab
 - D. Exam 2
- VI. Stability and Proprioception
 - A. Sport and Human Movement
 - B. Stability/Balance Lab
- VII. Sport Mechanics
 - A. Kinematics and Performance
 - B. Kinetics and Performance
 - C. Sport Movement Analysis Lab
 - D. Exam 3
- VIII. Final Exam

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE DELETION

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammylee</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
PE	2861
Official Catalog Title:	
Rhythmic Aerobic Activities	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Will the cross-listed course be deleted? ☐ Yes ☒ No

(NOTE: If major or minor course, you must complete the Request for Program Change form to delete course from program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable.**
- b. If this course was required for the major or minor, complete the following.
 1. How will program level learning outcome(s) previously addressed by this course now be addressed?
The content of three current courses, PE 2861, WS 2081, and WS 2091 will be consolidated into a 3-credit hour course, 1003 Introduction to Exercise Programming, that will cover the material presented in the classes.
- c. What is the rationale for deleting this course? What evidence supports this action?
The deletion of PE 2861 is part of the process of aligning program course work with content identified by the Council on Accreditation of Strength and Conditioning Education (CASCE) and Detailed Content Outline for personal training/coaching certifications.

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

NOTE: This deletion will be effective at the end of the spring term of the current catalog year.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE DELETION

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammiguer</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	2031
Official Catalog Title:	
Directing Food, Exercise, and Body Composition Programs	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Will the cross-listed course be deleted? ☐ Yes ☒ No

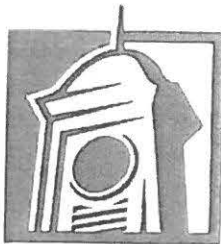
(NOTE: If major or minor course, you must complete the Request for Program Change form to delete course from program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course was required for the major or minor, complete the following.
 1. How will program level learning outcome(s) previously addressed by this course now be addressed?
The learning outcomes for WS 2031 will be met through the outcomes of the following courses:
 - HES 1003 Introduction to Exercise Programming
 - HES Lifetime Health and Fitness
- c. What is the rationale for deleting this course? What evidence supports this action?
The deletion of WS 2031 is part of the process of aligning program course work with content identified by the Council on Accreditation of Strength and Conditioning Education (CASCE) and Detailed Content Outline for personal training/coaching certifications.

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

NOTE: This deletion will be effective at the end of the spring term of the current catalog year.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE DELETION

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammigueau</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	2081
Official Catalog Title:	
Directing Muscle Fitness Programs	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Will the cross-listed course be deleted? ☐ Yes ☒ No

(NOTE: If major or minor course, you must complete the Request for Program Change form to delete course from program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course was required for the major or minor, complete the following.
 1. How will program level learning outcome(s) previously addressed by this course now be addressed?
The content of three current courses, PE 2861, WS 2081, and WS 2091 will be consolidated into a 3-credit hour course, 1003 Introduction to Exercise Programming, that will cover the material presented in the classes.
- c. What is the rationale for deleting this course? What evidence supports this action?
The deletion of WS 2081 is part of the process of aligning program course work with content identified by the Council on Accreditation of Strength and Conditioning Education (CASCE) and Detailed Content Outline for personal training/coaching certifications.

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

NOTE: This deletion will be effective at the end of the spring term of the current catalog year.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE DELETION

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christie Austin</i>	8.4.2021
Registrar	<i>Gemmy Weaver</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	2091
Official Catalog Title:	
Directing Fitness Walking/Jogging Programs	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Will the cross-listed course be deleted? ☐ Yes ☒ No

(NOTE: If major or minor course, you must complete the Request for Program Change form to delete course from program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable.
- b. If this course was required for the major or minor, complete the following.
 1. How will program level learning outcome(s) previously addressed by this course now be addressed?
The content of three current courses, PE 2861, WS 2081, and WS 2091 will be consolidated into a 3-credit hour course, 1003 Introduction to Exercise Programming, that will cover the material presented in the classes.
- c. What is the rationale for deleting this course? What evidence supports this action?
The deletion of WS 2091 is part of the process of aligning program course work with content identified by the Council on Accreditation of Strength and Conditioning Education (CASCE) and Detailed Content Outline for personal training/coaching certifications.

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.

NOTE: This deletion will be effective at the end of the spring term of the current catalog year.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Lammy Lee</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
HLED	1513
Official Catalog Title:	
Personal Health and Wellness	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☒ Title

☐ Course Description

☐ Cross-Listing

☐ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Lifetime Health and Fitness

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

LIFETIME HEALTH AND FITNESS

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☒ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. Not Applicable
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christine Austin</i>	8.4.2021
Registrar	<i>Gammylee</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
HLED	4403
Official Catalog Title:	
Nutrition and Physical Fitness	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☒ Title

☐ Course Description

☐ Cross-Listing

☒ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Sport and Exercise Nutrition

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

SPORT AND EXERCISE NUTRITION

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

PE 2653 and PE 4033

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☒ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

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ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
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Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammylwan</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	1002
Official Catalog Title:	
Physical Wellness and Fitness	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☒ Title

☐ Course Description

☐ Cross-Listing

☐ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Physical Health and Fitness

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

PHYSICAL HEALTH & FITNESS

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☒ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

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ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammylewauer</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	2003
Official Catalog Title:	
Field Based Experience in Wellness	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

- | | | |
|--|---|---|
| <input type="checkbox"/> Course Number | <input checked="" type="checkbox"/> Title | <input type="checkbox"/> Course Description |
| <input type="checkbox"/> Cross-Listing | <input type="checkbox"/> Prerequisite | <input type="checkbox"/> Co-requisite |
| <input type="checkbox"/> Grading | <input type="checkbox"/> Fee | |
| <input type="checkbox"/> Other | | |

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Field Based Experience in Health and Exercise Science

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

FIELD EXP IN HEALTH AND EXSC

New Course Description:

New Cross List:

- | | | |
|---|---|---|
| <input type="checkbox"/> Adding Cross-Listing | <input type="checkbox"/> Changing Cross-Listing | <input type="checkbox"/> Deleting Cross-Listing |
|---|---|---|

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

New Co-requisite (list all, as you want them to appear in the catalog):

- | | | |
|-----------------------------------|---|--------------------------------|
| <input type="checkbox"/> Elective | <input checked="" type="checkbox"/> Major | <input type="checkbox"/> Minor |
|-----------------------------------|---|--------------------------------|

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammy Luauu</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	4003
Official Catalog Title:	
Advanced Professional Seminar	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☒ Title

☐ Course Description

☐ Cross-Listing

☒ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Senior Seminar

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

SENIOR SEMINAR

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

Completion of all 1000- and 2000-level Wellness Science required classes; level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173; 90 earned hours.

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☒ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christine Austin</i>	8.4.2021
Registrar	<i>Gammylee</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	4012
Official Catalog Title:	
Wellness and Fitness Program Management Internship	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☒ Title

☐ Course Description

☐ Cross-Listing

☐ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Health and Exercise Science Internship

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

HEALTH & EXSC INTERNSHIP

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☒ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	05/03/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammy Weaver</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	4013
Official Catalog Title:	
Wellness Science Practicum	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☒ Title

☐ Course Description

☐ Cross-Listing

☐ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Health and Exercise Science Practicum

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

HEALTH & EXSC PRACTICUM

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☒ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

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ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
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Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Gammy Weaver</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
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Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	4023
Official Catalog Title:	
Principles of Strength and Conditioning	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☐ Title

☐ Course Description

☐ Cross-Listing

☒ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

PE 2653, PE 3661, and PE 4033

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☐ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable.
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
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ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

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Registrar	<i>Gammy Luallen</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	4063
Official Catalog Title:	
Wellness and Fitness Programming	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☒ Title

☐ Course Description

☐ Cross-Listing

☒ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Health and Fitness Programming

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

HEALTH & FITNESS PROGRAM

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173; PE 4033.

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☒ Major

☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. **Not Applicable**
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

REQUEST FOR COURSE CHANGE

Department Initiating Proposal	Date
Health and Physical Education	

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	08/04/2021
Dean	<i>Linda Bean</i>	8.4.2021
Assessment Dr. Christine Austin	<i>Christ Austin</i>	8.4.2021
Registrar	<i>Tommy J. J. J.</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Course Subject: (e.g., ACCT, ENGL)	Course Number: (e.g., 1003)
WS	4991, 4992, 4993
Official Catalog Title:	
Special Problems in Wellness Science	

Is this course cross-listed with another existing course? If so, list course subject and number.

☐ Yes ☒ No

Request to change: (check appropriate box):

☐ Course Number

☒ Title

☐ Course Description

☐ Cross-Listing

☐ Prerequisite

☐ Co-requisite

☐ Grading

☐ Fee

☐ Other

NOTES: These changes will become effective in the Summer I Term of the new catalog year. If this course is cross-listed, a prerequisite/co-requisite, or included in the course description of other courses, a Course Change must be submitted to address all changes in related courses.

New Course Number: (e.g., 1003)

New Official Catalog Title: (If official title exceeds 30 characters, indicate Banner Title below)

Special Problems in Health and Exercise Science

Banner Title: (limited to 30 characters, including spaces, capitalize all letters - this will display on the transcript)

Special Problems in HES

New Course Description:

New Cross List:

☐ Adding Cross-Listing

☐ Changing Cross-Listing

☐ Deleting Cross-Listing

If adding or changing cross-listing, indicate course subject and number

New Prerequisite (list all, as you want them to appear in the catalog):

New Co-requisite (list all, as you want them to appear in the catalog):

☐ Elective

☐ Major

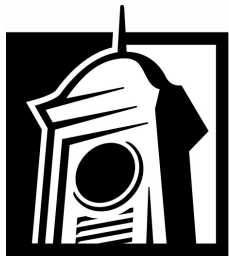
☐ Minor

(If major or minor course, you must complete the Request for Program Change form to add course to program.)

Answer the following Assessment questions:

- a. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable.
- b. If this course is required for the major or minor, complete the following.
 - a. Provide the program level learning outcome(s) it addresses.
 - b. Provide tool or measure directly linked to each program learning outcome. (How will student learning in this outcome be measured?)
- c. What is the rationale for adding this course? What evidence supports this action?

If this course will affect other departments, a Departmental Support Form for each affected department must be attached. The form is located on the Curriculum forms web page at http://www.atu.edu/registrar/curriculum_forms.php.



ARKANSAS TECH UNIVERSITY

PROPOSAL FOR NEW PROGRAM (Certificate, Associate, Bachelor, Master's, or Doctoral Degrees)

Department Initiating Proposal	Date
Health and Physical Education Department	07/26/2021

Title	Signature	Date
Department Head	<i>Rockie Pederson</i>	07/26/2021
Dean	<i>Linda Bean</i>	8.3.2021
Assessment Christine Austin	<i>Christine Austin</i>	8.4.2021
Registrar	<i>Tammy Weaver</i>	8/5/21
Graduate Dean (Graduate Proposals Only)		
Vice President for Academic Affairs		

Committee	Approval Date
General Education Committee (Undergraduate Proposals Only)	
Teacher Education Committee (Graduate or Undergraduate Proposals)	
Curriculum Committee (Undergraduate Proposals Only)	
Faculty Senate (Undergraduate Proposals Only)	
Graduate Council (Graduate Proposals Only)	

Program Title: Health and Exercise Science

PROPOSAL – 1 NEW DEGREE PROGRAM

1. **PROPOSED PROGRAM TITLE – Health and Exercise Science**
2. **CIP CODE REQUESTED – Kinesiology and Exercise Science. 31.0505**
3. **PROPOSED STARTING DATE – Summer 2022**

4. **CONTACT PERSON**

Name Barbara J. Johnson, PhD

Title Vice President for Academic Affairs and Professor of College Student
Personnel

Name of Institution Arkansas Tech University

E-mail Address bjohnson@atu.edu

Phone Number (479) 968-0319

Name Rockie D. Pederson, PhD

Title Department Head and Professor of Health and Physical Education

E-mail Address rpederson@atu.edu

Phone Number (479) 964-0583, ext. 4900

5. **PROGRAM SUMMARY**

The Bachelor of Science in Health and Exercise Science program with two additional tracks of Kinesiology and Pre-Allied Professional Health Studies is a revision of the existing Wellness Science option to prepare students for the strength and conditioning, fitness, and exercise/sport science professions, or preparation for advanced health care degrees.

Curriculum changes will have course name changes for HLED 1513 Lifetime Health and Fitness, HES 2003 Field-Based Experience in Health & Exercise, HES 4003 Senior Seminar, HES 4063 Health and Fitness Programming, HLED 4403 Sport & Exercise Nutrition, and HES 4013 Health & Exercise Science Practicum. There will be the addition of new courses titled HES 2030 Weight training for CPT, Sport Coach and Physical Educators and HES 2040 Endurance Conditioning, followed by the deletion of WS 1002 Physical Wellness and Fitness, WS 2091 Directing Fitness Walking/Jogging Programs, WS 2081 Directing Muscle Fitness Programs, WS 2031 Directing Food, Exercise, and Body Comp Programs, and PE 2861 Rhythmic Aerobic Activities.

Arkansas Tech University currently offers the Physical Education Teaching/Coaching Licensure program that has crossover curriculum courses. Additionally, the programs of Allied Health Science, Rehabilitation Science, Recreation Sport Management, Therapeutic Recreation, Health Information Technology, and Physical Therapist Assistant are complimentary to the proposed new program.

6. **NEED FOR THE PROGRAM**

The Wellness Science option currently offered by the HPE Department is being updated as the Health and Exercise Science program to effectively prepare students for the trends in the profession as established by U.S. Bureau of Labor Statistics, Club Industry, International Health, Racquet & Sportsclub Association, American College of Sports Medicine, and National Strength and Conditioning Association.

The national and regional job projections have athletic training, personal trainers/group fitness instructors, coaching/scouts, and exercise physiologists have the highest growth potentials. The program addresses knowledge requirements for nationally accredited certifications, sets up the department for future program accreditation through the Council on Accreditation of Strength and Conditioning Education (CASCE), and course work to prepare students in applied areas that are trending as training and coaching necessities.

7. CURRICULUM

Health and Exercise Science Total Credit Hours = 120

Fall 1		Spring 1	
*ENGL 1013 Composition I	3	*ENGL 1023 Composition II	3
*MATH 1113 College Algebra/higher	3	*PSY 2003 General Psychology - Social Science	3
*BIOL 1014 Intro to Biological Science	4	*Physical Science with Lab	4
***PE 1201 Orientation to PE	1	**COMM 2173 Business & Professional Speaking	3
Elective PE Class	1	*HLED 1513 Lifetime Health and Fitness	3
***HES 1003 Intro Exercise Programming	3		
	15		16
Fall 2		Spring 2	
*U.S. History/Government	3	**ECON 2003 Principles of Economics	3
**COMS 1003 Intro to Comp Systems	3	*Fine Arts & Humanities #1	3
***PE 2513 First Aid	3	*Fine Arts & Humanities #2	3
***PE 2653 Anatomy and Physiology	3	***PE 3663 Kinesiology	3
***HES 2003- Field-Based Experiences in Health & Exercise Science	3	***HES 2013 Weight training for CPT, Sport Coach, and PE	3
Elective PE Class	1	*PE 3661 Lab Experiences in Anatomy/Physiology and Kinesiology	1
	15		16
Fall 3		Spring 3	
AHS 2013 Medical Terminology	3	*HES 3003 Exercise Prescription	3
***PE 3573 Prevention & Care of Athletic Injuries	3	***HLED 3203 Consumer Health Programs	3
***HES 2023 Endurance Conditioning	3	***HES 3023 Exercise Behavior and Adherence	3
***PE 4033 Exercise Physiology	3	**MKT 3043 Principles of Marketing	3
***HES 2043 Applied Fitness Assessment and Development	3	**MGMT 3003 Management & Organization Behavior	3
	15		15
Fall 4		Spring 4	
***HES 4003- Senior Seminar	3	***HES 4012 – Health & Exercise Science Internship (Contact Hours = 490)	12
***HES 4063- Health and Fitness Programming. Pre-requisite PE 4033	3		
***HLED 4403 Sport & Exercise Nutrition Pre-requisite PE 4033	3		
***HES 4023 Principles of Strength and Conditioning. Pre-requisite PE 4033	3		
***HES 4013 Health & Exercise Science Practicum	3		
	15		12

*General Education Courses

**Core

***Major Courses

Health and Exercise Science: Kinesiology Option Total Credit Hours = 120

Fall 1		Spring 1	
*ENGL 1013 Composition I	3	*ENGL 1023 Composition II	3
*MATH 1113 College Algebra/higher	3	*PSY 2003 General Psychology - Social Science	3
*BIOL 1014 Intro to Biological Science	4	*Physical Science with Lab	4
***PE 1201 Orientation to PE	1	**COMM 2173 Business & Professional Speaking	3
**Elective PE Class	1	**HLED 1513 Lifetime Health and Fitness	3
***HES 1003 Intro Exercise Programming	3		
	15		16
Fall 2		Spring 2	
*U.S. History/Government	3	***ECON 2003 Principles of Economics	3
**COMS 1003 Intro to Comp Systems	3	*Fine Arts & Humanities #1	3
***PE 2513 First Aid	3	*Fine Arts & Humanities #2	3
***PE 2653 Anatomy and Physiology	3	***PE 3663 Kinesiology	3
AHS 2013 Medical Terminology	3	*HES 2013 Weight training for CPT, Sport Coach, and PE	3
Elective PE Activity	1	*PE 3661 Lab Experiences in Anatomy/Physiology and Kinesiology	1
	16		16
Fall 3		Spring 3	
***HES 2023 Endurance Conditioning	3	***HES 3003 Exercise Prescription	3
***PE 3573 Prevention & Care of Athletic Injuries	3	***HLED 3203 Consumer Health Programs	3
MGMT 3003 Management & Organization Behavior	3	*HES 3013 Coaching Power, Speed and Agility	3
***PE 4033 Exercise Physiology	3	***HES 4043 Exercise Physiology Lab	3
***HES 2043 Applied Fitness Assessment and Development	3	***PE 4103 Principles of Adaptive Physical Activity	3
	15		15
Fall 4		Spring 4	
MKT 3043 Principles of Marketing	3	*HES 4012- Health & Exercise Science Internship (Contact hours = 490)	12
***HES 4023 Principles of Strength and Conditioning. Pre-requisite PE 4033	3		
***HLED 4403 Sport & Exercise Nutrition	3		
***HES 4053 Biomechanics	3		
***HES 4013 Wellness Science Practicum	3		
	15		12

*General Education Courses

**Core

***Major Courses

Health and Exercise Science: Pre-Allied Health Studies Option (Pre-PT, Chiropractic, AT)

Total Credit Hours = 122

Fall 1		Spring 1	
*ENGL 1013 Composition I	3	*ENGL 1023 Composition II	3
*MATH 1113 College Algebra/higher	3	*PSY 2003 General Psychology - Social Science	3
*BIOL 1014 Intro to Biological Science	4	**CHEM 2124: General Chemistry I -Physical Science with Lab	4
***PE 1201 Orientation to PE	1	**COMM 2173 Business & Professional Speaking	3
**Elective PE Class	1	**HLED 1513 Lifetime Health and Fitness	3
***HES 1003 Intro Exercise Programming	3		
	15		16
Fall 2		Spring 2	
*U.S. History/Government	3	**ECON 2003 Principles of Economics	3
**AHS 2013 Medical Terminology	3	*Fine Arts & Humanities #1	3
BIOL 2404 Human Anatomy and Physiology I	4	*PE 2513 First Aid	3
**CHEM 2134/2130- Gen. Chemistry II	4	**BIOL 2414 Human Anatomy and Physiology II	4
***PE 3661 Lab Experiences in Anatomy/Physiology and Kinesiology	1	***PE 3663 Kinesiology	3
	15		16
Fall 3		Spring 3	
**PHYS 2014 Physics I	4	**PHYS 2024 Physics II	4
***PE 3573 Prevention & Care of Athletic Injuries	3	***HLED 3203 Consumer Health Programs	3
**MGMT 3003 Management & Organization Behavior	3	**Fine Arts & Humanities #2	3
***PE 4033 Exercise Physiology	3	***HES 4043 Exercise Physiology Lab	3
***HES 2043 Applied Fitness Assessment and Development	3	***HES 3003 Exercise Prescription	3
	16		16
Fall 4		Spring 4	
MKT 3043 Principles of Marketing	3	*HES 4012- Health & Exercise Science Internship (Contact hours = 490)	12
***HES 4053 Biomechanics	3		
***HLED 4403 Sport & Exercise Nutrition.	3		
**PSY 2053 Statistics for the Behavioral Sciences	3		
***HES 4013 Health & Exercise Science Practicum	3		
**Elective for Observation Hours – PE 4991 Independent Study will be used to create elective specific to student's interest.	1		
	16		12

*General Education Courses

**Core

***Major Courses

New course descriptions.

HES 1003 Intro Exercise Programming: This course will introduce students the four components of fitness (muscular strength & endurance; cardiorespiratory endurance; flexibility; and body composition), the F.I.T.T. principle (Frequency-Intensity- Type- Time), basic physical adaptations, and basic strength & endurance exercises. Students will be taken through example applications of programming, led through programs by the instructor and tested on knowledge of basic programming knowledge.

HES 2013 Weight training for CPT, Sport Coach, and PE (Pre-requisite HES 1003): This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. cleans, snatches, front squats, bent over rows, etc.) that can be integrated into a weight training for the development of muscular strength, hypertrophy, and power. Coaching and teaching strategies will be discussed and practices that includes weight training safety, exercise technique assessment, testing, and programming methods.

HES 2023 Endurance Conditioning (Pre-requisite HES 1003): This course is designed to provide students the opportunity to understand the various methods of coaching and teaching endurance focused exercises, activities, and programming. Basic endurance principles, techniques, and application of programming will meet the instructional needs of personal trainers, strength & conditioning coaches, and sport coaches.

HES 3013 Coaching Power, Speed and Agility (Pre-requisite HES 1003): This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. plyometrics, sprints, 5-10-5, etc.) that can be integrated into a strength and conditioning programs for the improvement in athletic performance.

HES 4043 Exercise Physiology Lab (Pre-requisite PE 4033): This course will involve the study, calculation, and understanding of how exercise physiology is tested, assessed, and applies to training, athletics, and physical activity. Laboratory experiences will apply to the concepts' bioenergetics, fatigue, oxygen consumption, muscular performance, and cardiovascular functions.

HES 4053 Biomechanics (Pre-requisite PE 4033): This course will involve the study, calculation, and understanding of the biomechanical principles that contribute to human movements, exercise, and athletics. Laboratory experiences of biomechanical principles through kinematic and kinetic analysis will facilitate advancement of the students understanding of human/athletic performance.

Identify required general education courses, core courses and major courses.

General Education Courses

ENGL 1013 Composition

ENGL 1023 Composition II

MATH 1113 College Algebra/higher

PSY 2003 General Psychology - Social Science

BIOL 1014 Intro to Biological Science

Physical Science with Lab
U.S. History/Government
Fine Arts & Humanities #1
Fine Arts & Humanities #2

Core Courses

Elective PE Class
Elective PE Class
COMS 1003 Intro to Comp Systems
COMM 2173 Business & Professional Speaking
AHS 2013 Medical Terminology
ECON 2003 Principles of Economics
BIOL 2404 Human Anatomy and Physiology I
BIOL 2414 Human Anatomy and Physiology II
CHEM 2124: General Chemistry I -Physical Science with Lab
CHEM 2134/2130- Gen. Chemistry II
PHYS 2014 Physics I
PHYS 2024 Physics II
PSY 2053 Statistics for the Behavioral Sciences
MGMT 3003 Management & Organization Behavior
MKT 3043 Principles of Marketing
PE 4991 Special Problems in Health and Physical Education

Major Courses Including faculty member assigned to teach the course

PE 1201 Orientation to PE (**Kelly, O'Connor, Stone**)
PE 2513 First Aid (**Kelly, Norton**)
PE 2653 Anatomy and Physiology (**Dunnick**)
PE 3663 Kinesiology (**Dunnick, Waller**)
PE 3661 Lab Experiences in Anatomy/Physiology and Kinesiology (**Kraft**)
PE 3573 Prevention & Care of Athletic Injuries (**McSweeney**)
PE 4033 Exercise Physiology (**Dunnick**)
HES 1003 Intro Exercise Programming (**Kirkpatrick, Adjunct**)
HES 2003- Field-Based Experience in Health & Exercise (**Norton**)
HES 2013 Weight training for CPT, Sport Coach, and PE (**Dunnick, Kirkpatrick, Waller**)
HES 2023 Endurance Conditioning (**Crider, Waller, Adjunct**)
HES 3003 Exercise Prescription (**Waller**)
HES 3013 Coaching Power, Speed, and Agility (**Waller, Adjunct**)
HES 3023 Exercise Behavior and Adherence (**Kirkpatrick**)
HES 2043 Applied Fitness Assessment and Development (**Crider**)
HES 4003 Senior Seminar (**Norton**)
HES 4012 Health & Exercise Science Internship (Contact Hours = 490)
(**Pederson, Kirkpatrick**)
HES 4013 Health & Exercise Science Practicum (**Crider**)
HES 4023 Principles of Strength and Conditioning. (**Waller**)
HES 4043 Exercise Physiology Lab (**Dunnick**)
HES 4053 Biomechanics (**Dunnick, Waller**)
HES 4063- Health and Fitness Programming. (**Waller**)
HLED 1513 Lifetime Health and Fitness (**Kirkpatrick, Adjunct**)

HLED 3203 Consumer Health Programs (**Kirkpatrick**)
HLED 4403 Sport & Exercise Nutrition (**Kirkpatrick**)

State the program admission requirements.

Entering Freshman / New Student:

New students to Arkansas Tech University must submit an application for admission, college entrance exam scores, and a record documenting completion of secondary requirements. If you have concurrent college credit, an official transcript from that institution is required. For Advanced Placement (AP), College Level Examination Program (CLEP), or International Baccalaureate (IB) credit, original score reports or a certified copy from your high school will need to be submitted prior to credit being awarded. A minimum criterion for exam scores and grade point average is listed below:

1. Composite ACT score of 19 or above, composite SAT score of 1010 or above on the RSAT scale of 1600 or a composite SAT score of 1330 on the former SAT exam with a scale of 2400, or a composite Next Generation ACCUPLACER score of 246. Note: The ACT Writing exam is not required for admission purposes.
2. Completion of graduation requirements from a public secondary school, private secondary school, or a home school program documenting a minimum 2.0/4.0 cumulative grade point average, and completion of the university's secondary school core curriculum, OR minimum GED score of 580.

Students who have scored accordingly on an **Advanced Placement (AP)**, [College Level Examination Program \(CLEP\)](#), or [International Baccalaureate \(IB\)](#) can earn credit toward graduation at Arkansas Tech University by receiving a qualifying score on the examinations. These credits can satisfy general education requirements. AP, CLEP, and IB scores should be documented on your application for admission. Submit official score reports or readable copies embossed by your high school to the Office of Admissions. Students who have earned an International Baccalaureate (IB) should submit their IB transcript for evaluation. Students who successfully complete the [International Baccalaureate Diploma Programme](#) can earn credit toward graduation at Arkansas Tech University.

Freshmen who do not meet unconditional admission requirements will be conditionally admitted with a minimum composite ACT score of 15, composite SAT score of 850 or above on the RSAT scale of 1600 or a composite SAT score of 1060 on the former SAT exam with a scale of 2400, or a composite Next Generation ACCUPLACER score of 229, and by completing college core with a 2.0/4.0 grade point average or minimum GED score of 580.

Returning Student:

Students who have not attended Arkansas Tech in the past year or have attended another college or university since last attending Tech must submit a new application for admission. Minimum grade point average requirements are listed below:

- Has not attended another college since attending Tech
 - Cumulative Tech GPA of 2.0 or higher
- Has attended another college since attending Tech
 - Cumulative Tech GPA of 2.0 or higher
 - Official college transcript(s) documenting a cumulative college GPA of 2.0 or higher
 - Must be eligible for re-enrollment at the last institution attended

Transfer Student:

Students who have not attended Arkansas Tech University must submit an application for admission and official transcripts from each institution previously attended.

If transferring less than 24 credit hours, an official high school transcript and ACT, SAT, or ACCUPLACER scores must be submitted. Transfer students with more than 24 hours, who have not completed college level English or math, will be required to submit test scores. Arkansas Tech University will recognize transfer credit from a U.S. institution provided that the institution is accredited by one of the six U.S. regional accreditation associations, and for courses that are approved for transfer by ADHE through ACTS. Acceptance of course credit may depend on the date that the institution was accredited or the date that a course was approved for transfer by ADHE. Transfer credit for coursework from institutions outside the U.S. will be considered on an individual basis. Students seeking transfer of credit from a foreign college/university must complete a credential evaluation through a company authorized by Arkansas Tech University (a list of approved service providers can be obtained in the IMSSO or in the Registrar's Office). **Transfer credit, although accepted by the university, is not guaranteed to be applicable toward meeting degree requirements for the particular program of study selected by the transfer student.** Once admitted, your academic advisor will determine which credits count toward your degree requirements.

Minimum grade point average requirements are listed below:

1. All transfers must be eligible for re-enrollment at the last institution attended and have a cumulative college GPA of 2.0

If you do not meet the admission requirements for unconditional admittance and/or have been denied admission, you may submit an [admissions appeal](#) within ten calendar days from the date admission was denied and should state the applicant's grounds for appeal. The appeal should be addressed to the Office of Admissions. If you need further details on any of the information above, email the Office of Admissions at admissions@atu.edu. You may also reach us

by phone at 800-582-6953 or (479) 968-0343. Unofficial documents can be faxed to (479) 964-0522.

Describe specified learning outcomes and course examination procedures.

See Appendix A: Program Course Syllabi

Include a copy of the course evaluation to be completed by the student.

See Appendix B: Program Course Evaluations

Provide institutional curriculum committee review/approval date for proposed program.

TBD

8. FACULTY

List the names and credentials of all faculty teaching courses for the proposed program.

William “Randy” Kirkpatrick

University of Arkansas, Fayetteville, Arkansas	EdD	Health Sciences	Subject Area
			<ul style="list-style-type: none">• HES Exercise Behavior and Adherence• HLED 3203 Consumer Health Programs• HLED 4403 Sport and Exercise Nutrition• HES 4012 Health and Exercise Science Internship

Dustin Dunnick

University of Nevada, Las Vegas, Nevada	PhD	Interdisciplinary Health Studies	Subject Area
			<ul style="list-style-type: none">• HES 2023 Endurance Conditioning• PE 2653 Anatomy and Physiology• PE 3663 Kinesiology• PE 4033 Exercise Physiology

Michael Waller, HES Program Coordinator

The University of Utah, Salt Lake City, Utah	PhD	Exercise and Sport Science	Subject Area
			<ul style="list-style-type: none">• HES 2013 Weight Training for Personal Trainer, Sport Coach, and Physical Educator• HES 3013 Coaching Power, Speed and Agility• HES 3003 Exercise Prescription• HES 4013 Health and Exercise Science Practicum• HES 4023 Principles of Strength and Conditioning• HES 4063 Health and Fitness Programming

Troy Norton, MSE

Arkansas Tech University	MSE	Health and Physical Education	Subject Area
			<ul style="list-style-type: none"> • PE 2513 First Aid • HES 2003 Field Based Experience in Health and Exercise Science • HES 4003 Senior Seminar

Rockie D. Pederson

Texas Woman's University, Denton, Texas	PhD	Kinesiology – Motor Learning and Control	Subject Area
			<ul style="list-style-type: none"> • HES 4012 Health and Exercise Science Internship

John O'Connor

Texas Woman's University, Denton, Texas	PhD	Kinesiology – Adapted Physical Education	Subject Area
			<ul style="list-style-type: none"> • PE 4103 Principles of Adapted Physical Activity

Lisa Crider, MSE

Arkansas Tech University	MS	Strength and Conditioning Studies	Subject Area
			<ul style="list-style-type: none"> • PE 3661 Laboratory Experiences in Anatomy/Physiology and Kinesiology • HES 2043 Applied Fitness Assessment and Development • HES Health and Exercise Science Practicum

9. DESCRIPTION OF RESOURCES**Literary Resources**

Established literary resources from current programs are in place to support research, curriculum assignments, certification preparation, and dissemination of profession information. The Ross Pedergraft Library currently has 615 books, 31 DVDs, 7 periodicals, and 962 microfiche related to the program available. There are also 733 e-books available, search engines such as SPORTDiscus with Full Text, and other web resources that can be procured through inter-library loans. The Department of Health and Physical Education also has books and journals available to students that have been provided through the faculty.

Current instructional facilities

There are currently 4 classroom spaces for lecture purposes, one classroom designed for first aid treatment courses, designated computer lab, human performance lab for physiological testing and learning, underwater weighing room, strength & conditioning lab for hands-on learning of various modes and methods, two gymnasium spaces, Tech Fit for exercise activity courses and hands-on learning of personal training and strength & condition coaching. Classroom spaces have computer/technology in place for video presentation,

Human Performance Lab Equipment

- Monark manual Lower-body Cycle Ergometers QTY = 5
- Monark control pad Lower-body Cycle ergometer bike = 1
- Monark computerized Lower-body Cycle ergometer bike = 1
- Tanita Body Composition and Weight Scale
- Parvomedics truemax 2400
- Treadmill TMX425c
- Weighing tank hydrostatic
- Heartstream
- Polar Heart Rate Straps & Monitors
- Just Jump Mat
- Rescue Anne full-body
- Resusci Anne
- Lafayette balance board testor
- Biodex™ Dynamometer system
- Delysis™ Electromyography +Trigno wireless EMG system base station
- Quark RMR indirect calorimetry
- Lange and Baseline Skinfold Calipers
- Harpenden Skinfold Caliper
- DARTFISH motion analysis software package
- GYMAware™ Linear Position Transducer
- Laundry Washer and Dryer commercial

Tech Fit Equipment

- Legend Belt Squat Machine
- Legend Preacher Curl
- Legend Competition Flat Bench Press
- Legend Core-Spider Abdominal Bench
- Legend Reverse Back Extension
- Legend T-Bar Row
- Legend A-Frame Equipment Handle Holder
- Legend Adjustable Flat-Incline Benches Qty. = 4
- Iron Range Dual Side-by-Side Half Rack
- Iron Range Glute-Ham-Back Extension
- 130 lbs. Tire for flipping and dragging

- Matrix Machine Calf Press
- Matrix Machine Hip Adduction
- Matrix Machine Hip Abduction
- Matrix Machine Leg Extension
- Matrix Machine Leg Press
- Matrix Machine Seated Leg Curl
- Matrix Machine Prone Leg Curl
- Matrix Machine Rotary Torso
- Matrix Machine Back Extension
- Matrix Machine Abdominal
- Matrix Machine Rotary Hip
- Matrix Machine Rear Delt/Pec Fly
- Matrix Machine Diverging Lat Pulldown
- Matrix Machine Seated Dip
- Matrix Machine Arm Curl
- Matrix Machine Converging Shoulder Press
- Matrix Machine Diverging Seated Row
- Matrix Machine Converging Chest Press
- Matrix Machine Lateral Raise
- Matrix Machine Dip Assist/Chin Assist
- Matrix Flat Bench Press
- Matrix Incline Bench Press
- Matrix Smith Machine
- Matrix Functional Trainer Qty. = 2
- Assault Runners Qty. = 4
- Assault Bikes Qty. = 2
- Concept II Rowers Qty. = 2
- Precor Treadmills Qty. = 5
- Precor Ellipticals Qty. = 5
- Stepmills Qty. = 2
- Matrix Recumbent Bikes Qty. = 3
- 6' x 8' Weightlifting Platforms + Pyrros 20 kg WL bars Qty. = 2 , Pyrros 15 kg WL bar
- Bumper Plates 25 lbs. – 55 lbs.
- CAP Rubber encased plates 2.5 lbs. – 45 lbs.
- Dumbbells 5-100 lbs. pairs
- Kettlebells 8 lbs. – 80 lbs.
- Medicine Balls 4 lbs. – 20 lbs.
- Battling Rope Qty. = 2
- Foam Rollers Qty. = 6
- Resistance Bands

Strength and Condition Lab

- Weightlifting Platforms Qty. = 4 (MW constructed)
- Jerk Table (MW constructed)
- Pulling Blocks Qty. = 4 pairs. (MW constructed)

- Pendlay Weightlifting 20 kg & 15 kg Bar OSO Collars + Yellow (MW)
- Hampton 6' bar 35 lbs. (MW)
- Olympic Bars 45 lbs. Qty. = 3 + Iron Collars, 2 Spring Collars, Muscle Clamps (MW)
- Rogue Weightlifting Bars 45 lbs. & 35 lbs. + Rogue HG Collars (ATU)
- Rouge Bumper Plates 10 lbs. – 25 lbs. (ATU)
- Kraiburg, Rage, and York rubber bumper plates 10 kg./25 lbs. – 45 lbs. (MW)
- Pendlay Bumper Plates 25 lbs. – 55 lbs. & Horizontal Rack (MW)
- Cast Iron Plates 2.5 lbs./1.25 kg – 45 lbs./20 kg. + 2 A-Frame Racks (MW)
- Rubber Encased Plates 2.5 lbs. – 45 lbs. (ATU)
- Power Skater by Power Athletics (MW)
- Paramount Back Extension (MW)
- Squat Stands Qty. = 2 (MW)
- Half-Rack (ATU)
- Flat Bench Press (MW)
- Heavy Bag and Boxing Gear (MW)
- Agility Ladders by Power Systems (ATU)
- Stackable 4" Boxes Qty. = 10 (ATU)
- Metal Plyometric Boxes (ATU)
- Vertical Plate Rack (MW)
- PVC Hurdles (MW)
- Mini-hurdles 6" (ATU)
- Track Hurdles (ATU)
- Medicine Balls 6-8 lbs. (ATU)
- Medicine Ball with Rope (MW)
- PVC Technique Sticks (MW + ATU 3)
- Vertical Jump Tube Resisted (ATU)
- DOT Agility Mat (ATU)
- Battling Rope (MW)
- Sprint Resistor (MW)
- Adjustable Dumbbell (MW)
- Rubber plyometric runway (MW)

10. **NEW PROGRAM COSTS – Expenditures for the first 3 years**

New instructional resources required, including costs and acquisition plan

Technology specific to exercise and sport science such as force plates, motion analysis, training software platforms, or GPS sensors would be additions that would be needed for progression of the program. The smallest biomechanical motion analysis system package is quoted just under \$70,000, and a force decks with isometric mid-thigh pulling station is approximately \$13,000.

BridgeAthletic Inc. Training Platform for planning and programming = \$4000.00
VALD FDMAX Dual Force Plate System & Software = \$8800.00

These software and hardware items would be maintained through lab fees that would contribute to the licensing and updates.

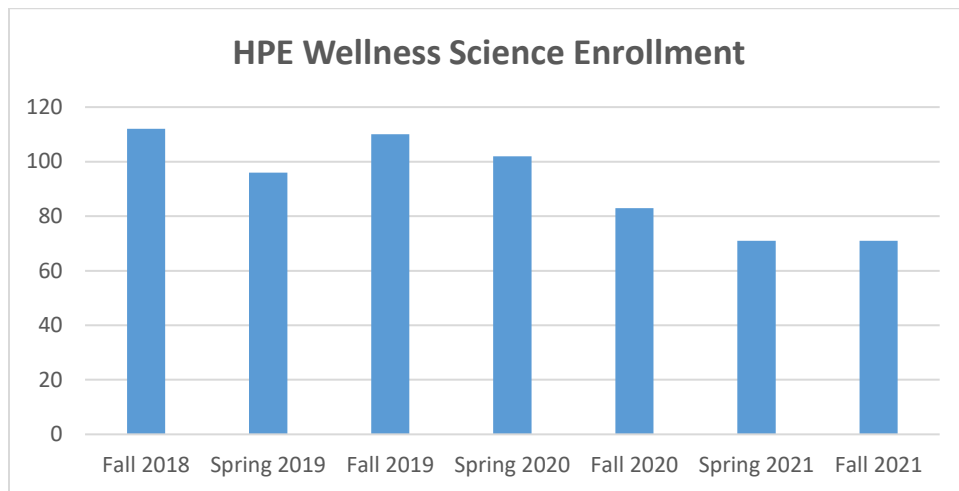
If no new costs required for program implementation, provide explanation.

No new costs are required for program implementation as the program currently exists as an option, Wellness Science (WS), in the Physical Education Teacher Education (PETE) program offered by the Health and Physical Education Department. This proposal moves WS from an option to a standalone program. All infrastructure is in place.

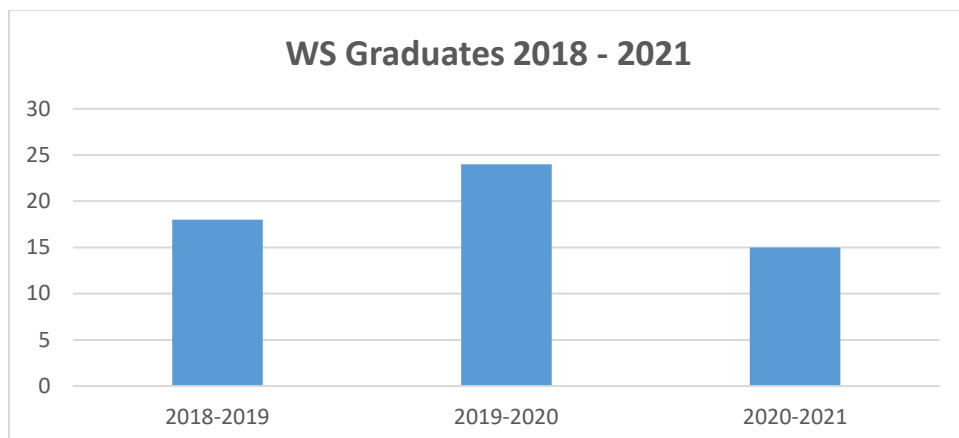
11. SOURCE OF PROGRAM FUNDING – Income for the first 3 years of program operation

The program currently exists as an option, Wellness Science (WS), in the Physical Education Teacher Education (PETE) program offered by the Health and Physical Education Department. This proposal moves WS from an option to a standalone program. All infrastructure is in place.

WS Program Enrollment – Fall 2018 to Fall 2021



WS Program Graduates Fall 2018 – Spring 2021



12. **ORGANIZATIONAL CHART REFLECTING NEW PROGRAM**

Proposed program will be housed in Health and Physical Education Department in the College of Education.

13. **SPECIALIZED REQUIREMENTS - NA**

14. **BOARD OF TRUSTEES APPROVAL**

Provide the date that the Board approved (or will consider) the proposed program.

Provide a copy of the Board meeting agenda that lists the proposed program, and written documentation of program/unit approval by the Board of Trustees prior to the Coordinating Board meeting that the proposal will be considered.

15. **SIMILAR PROGRAMS**

List institutions offering program:

- University of Arkansas
- University of Central Arkansas
- Arkansas State University
- Ouachita Baptist University
- Harding University
- Southern Arkansas University
- John Brown University
- Central Baptist College
- Henderson State University

Provide a copy of the e-mail notification to other institutions in the state notifying them of the proposed program.

Rockie Pederson
Thu 7/15/2021 2:03 PM
Cc: Rockie Pederson

Bcc: pfinnicu@astate.edu; stucker@uca.edu; bhammig@uark.edu; pcallej@uark.edu; garnert@uapb.edu; bfprince@ualr.edu; sddingman@saumag.edu; wempep@hsu.edu; dewittt@obu.edu; jriddle@cbc.edu; chalford@williamsbu.edu; sburks@harding.edu; hardin@hendrix.edu; TBowden@jbu.edu; matthew.peterson@lyon.edu; cosmith@philander.edu; hcoats@crc.edu; mworrell@ozarks.edu

This email is **notification** that Arkansas Tech University will propose offering a Bachelor of Science in Health and Exercise Science with Sport Performance and Pre-Allied Professional Health Studies options effective Summer 2022 and is interested in receiving comments or feedback about the program. This program will be offered in a campus-based format and is oriented toward preparing students to be strength/conditioning professionals, fitness professionals, and/or preparation for advanced degrees. The Health and Exercise Science degree with sport performance option includes courses in exercise programming, weight training, endurance conditioning, coaching power, speed, and agility, exercise and behavior adherence. The Health and Exercise Science degree with pre-allied professional health studies option

includes courses in exercise programming, additional courses in biology and chemistry, endurance conditioning, exercise physiology lab, health and fitness programming, and biomechanics.

The program, orientation, and format are in response to student and employer demand. This program is currently an option under the existing Physical Education Teacher Education (PETE) program. We are seeking to move from a PETE option to a standalone program.

We respectfully request your support for this proposal.

Per ADHE instructions, do not send your response **“Reply All”**. If you have an objection/concern(s), reply to my email and copy ADHE on the email.

Rockie D. Pederson

Professor and Department Head

Health and Physical Education Department

479 964 0583 ext 4900

No responses received to date. 07/20/2021

16. **DESEGREGATION - NA**

17. **INSTITUTIONAL AGREEMENTS/MEMORANDUM OF UNDERSTANDING (MOU) - NA**

18. ACADEMIC PROGRAM REVIEW

The first scheduled program review date will be academic year 2030-2031.

Health and Exercise Science (BS) Assessment Outline

Program Learning Outcomes:

1. Know and apply discipline-specific scientific and theoretical concepts critical to the development of physically educated individuals.
2. Administer fitness/performance tests and interpret the results to facilitate effective programming.
3. Develop effective training plans and programs for clients, classes, and/or teams.
4. Develop and maintain physical variables related to health, fitness, and performance.
5. Prepared to attain nationally accredited personal trainer and/or strength and conditioning coach certifications.

Health and Exercise Science (BS) Curriculum Assessment Map

Course	Outcomes (I = Introduced, R = Reinforced, M = Mastered)				
	1	2	3	4	5
HES 1003 Introduction to Exercise Programming	I	I	I	I	
HES 2003 Field Based experience in Health and Exercise Science	I	I	I	I	
HES 2043 Applied Fitness Assessment and Development	I	I	I		
HES 3003 Exercise Prescription	R	R			I
HES 3023 Exercise Behavior and Adherence		R	R	R	
HES 4003 Senior Seminar			R	R	I
HES 4012 Health and Exercise Science Internship				M	M
HES 4013 Health and Exercise Science Practicum	M			R	R
HES 4023 Principles of Strength and Conditioning		R	M		M
HES 4043 Exercise Physiology Lab	R	M			R
HES 4053 Biomechanics	M				R
HES 4063 Health and Fitness Programming		M	M		M
HLED 1513 Lifetime Health and Fitness	I			I	
HLED 4403 Nutrition and Physical Fitness			R	M	R

Storage of Material:

The university's assessment software, Weave, will be used to store all aggregated assessment data.

Frequency of Measurement:

At the conclusion of each academic year.

How Data will be collected:

The following table outlines the courses/assignments where data will be collected for each outcome.

Data Collection:

Level	Outcome	Course	Performance Indicator/Course Objective	Student Work Example
I	1	HES 1003	Introduce students to the exercise science scientific and theoretical concepts critical to the physical development of clients or athletes.	Exam Questions
R	1	HES 4043	Advance the physiological tests previously discussed critical to client or athlete physical development.	Exam Questions
M	1	HES 4053	Students will solidify an understanding of the kinetic and kinematics critical to the physical development of clients or athletes.	Assignment
I	2	HES 2043	Introduce field & laboratory based fitness/performance tests and interpret the results to facilitate effective programming for the personal trainer/coach.	Assignment (Lab Report)
R	2	HES 3003	Administer field based fitness/performance tests and interpret the results to facilitate effective programming for the personal trainer/coach.	Practical Exam
M	2	HES 4043	Administer laboratory based fitness/performance tests and interpret the results to facilitate effective programming.	Assignment (Lab Report)
I	3	HES 2043	Introduce students to the basic concepts of programming for fitness, strength, endurance, flexibility, and health.	Assignment
R	3	HES 3023	Students will learn methods to improve adherence to fitness programs and the principles needed to improve program effectiveness.	Assignment
M	3	HES 4023	Develop effective training plans and programs for individual and team athletes.	Assignment (Plan)
M	3	HES 4063	Develop effective training plans and programs for special populations, tactical, and fitness clients.	Assignment (Program)
I	4	HLED 1513	Introduce the basic concepts of health, fitness, and performance.	Exam Questions
R	4	HES 3023	Students will develop a greater understanding of the variables that can influence and improve health, fitness, and performance	Exam Questions
M	4	HLED 4403	Students will solidify an understanding of the principles necessary to develop and maintain health, fitness, and performance.	Assignment
I	5	HES 3003	Students will learn what tests to use for specific physical quality assessment and appropriate programming based on the results.	Assignment (Lab Report)
R	5	HES 4013	Students will have opportunities to expand their experiences in exercise science and develop potential career paths.	Exam Questions
M	5	HES 4012	Stimulate the intern's desire for continuous professional growth	Exit Portfolio
M	5	HES 4023	Assess the student's knowledge level to take a nationally accredited strength and conditioning coach certification	Final Exam Questions
M	5	HES 4063	Assess the student's knowledge level to take a nationally accredited personal trainer certification	Final Exam Questions

19. **PROVIDE ADDITIONAL INFORMATION IF REQUESTED BY ADHE STAFF**
20. **INSTRUCTION BY DISTANCE TECHNOLOGY - NA**

APPENDIX A

BS in Health and Exercise Science Course Syllabi

HES 1003 Intro Exercise Programming
HES 2003- Field-Based Experience in Health & Exercise
HES 2013 Weight training for CPT, Sport Coach, and PE
HES 2023 Endurance Conditioning
HES 3003 Exercise Prescription
HES 3013 Coaching Power, Speed, and Agility
HES 3023 Exercise Behavior and Adherence
HES 2043 Applied Fitness Assessment and Development
HES 4003- Senior Seminar
HES 4012 Health & Exercise Science Internship
HES 4013 Health & Exercise Science Practicum
HES 4023 Principles of Strength and Conditioning
HES 4043 Exercise Physiology Lab
HES 4053 Biomechanics
HES 4063- Health and Fitness Programming
HLED 1513 Lifetime Health and Fitness
HLED 3203 Consumer Health Programs
HLED 4403 Sport & Exercise Nutrition
PE 1201 Orientation to PE
PE 2513 First Aid
PE 2653 Anatomy and Physiology
PE 3573 Prevention & Care of Athletic Injuries PE 4033 Exercise Physiology
PE 3663 Kinesiology
PE 3661 Lab Experiences in Anatomy/Physiology and Kinesiology
PE 4033 Exercise Physiology
PE 4103 Principles of Adaptive Physical Activity

HES 1003 Introduction to Exercise Programming
Arkansas Tech University
Department of Health and Physical Education

Instructor

Phone:

E-mail:

Office Hours:

COURSE DESCRIPTION

This course will introduce students the four components of fitness (muscular strength & endurance; cardiorespiratory endurance; flexibility; and body composition), the F.I.T.T. principle (Frequency- Intensity- Type- Time), basic physical adaptations, and basic strength & endurance exercises. Students will be taken through example applications of programming, led through programs by the instructor and tested on knowledge of basic programming knowledge.

Required Book:

Secrets of Successful Program Design (2021) Alwyn Cosgrove and Craig Rasmussen.
Human Kinetics. Champaign, IL. ISBN: 9781492593225

Course Learning Outcomes:

1. Develop and be prepared to convey knowledge of resistance training to total fitness.
2. Demonstrate the ability to devise resistance training programs for total physical health.
3. Develop knowledge and understanding of resistance training physiological responses.
4. Develop and be prepared to convey knowledge gained from the course of fitness training.
5. Discuss and demonstrate proper cardiovascular training form which enhances performance and reduces the risk of injury.
6. Describe the appropriate frequency, intensity, and time of cardiovascular training required for physiological adaptations.
7. Develop an understanding of how aerobic fitness can be achieved from cardiovascular training (e.g. walking and jogging) and can improve one's overall health.
8. Discuss the basic tenets of the Food Guide Pyramid and explain how it relates to an overall effective exercise program.
9. Describe the basic roles and functions of the six basic nutrient classifications: carbohydrate, fat, protein, water, vitamins, and minerals.
10. Demonstrate a basic knowledge of body fat control and maintenance of body fat.
11. Demonstrate and discuss the concept of locus of control, and describe how its employment leads to personal health enhancement.
12. Design an overall exercise program for total fitness that will address personal goals, which are based on the training principles.

COURSE PROCEDURES AND EXPECTATIONS

- 1) Professional job expectations include the fact that you will arrive to work “on time.” This course should be treated the same, as it is a direct link to your future professional success. Participation points will be deducted for each late arrival (for class lectures and labs).
- 2) I expect you to work hard every day and I expect you to respect and help each other during every class.

- 3) Athletic apparel should be worn during gymnasium, weight-room and lab sessions. This means athletic shoes (e.g. cross-trainers), t-shirts, and shorts or athletic pants. Failure to arrive dressed for and participate in activities will result in a **5-point deduction**.
- 4) You will need access to a computer, the web, and a word processing program for course assignments.
- 5) **ALL WRITING ASSIGNMENTS:** For credit, assignments must be typed, Times New Roman font, double-spaced, 12-point font size, and in APA format as set by the university. In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. **NO LATE ASSIGNMENTS WILL BE ACCEPTED***. Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date and time) will only be accepted under unusual circumstances** and if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a "0" grade for the assignment.
- 6) **Assignments must reflect original work. Although problem-solving in groups is recommended, students may not turn in assignments that are identical to one another. Assignments turned in by students that have large volumes of information that are identical to each other constitutes a violation of the Student Code, and will receive no credit. (See PLAGIARISM Section)**
- 7) Students will not be allowed to take the course if the required prerequisites have not been completed.
- 8) Students are responsible for knowing the registration, drop, withdrawal, and final exam dates for the semester.

*Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies. Assignments are due at the **beginning** of the class and will not be accepted as email attachments unless otherwise approved in advance.

**Examples of unusual circumstances include a death in the immediate family, illness that requires medical treatment (documentation will be requested) or an emergency that your attention is required. Computer and/or printer error on the day an assignment is due is NOT considered an unusual circumstance. University-sponsored trips and/or functions are considered excused absences.

STUDENT RESPONSIBILITIES

- 1) Respect for the class members and the professor. **All electronic communications devices including cell phones will be placed in a designated area or will be turned off during class and placed in your bag (See CELL PHONE / I-PHONE POLICY).** Students who are texting, playing games, sleeping or being disruptive distract those who are trying to listen and participate, will be dismissed from the course and counted as unexcused absence. If you are tired or feel the need to use your phone leave the classroom and return when you are finished. It will be your responsibility to ask your classmates to assist you with the material missed.
- 2) During any activity portion of the course, students are expected to use respectful language and support their classmates regardless of size, shape or abilities.
- 3) Dress appropriately for the practical portion of class. For your safety and respect for others, please wear modest, comfortable clothing. Shoes, preferably tennis shoes, must be worn at all times. Professional attire is mandatory when working with clients and

examples of professional attire is warm-up pants, clean shorts, and collared shirts. If profane or clothing that is not preapproved, then the student will lose a full letter grade for the hands-on portion of the course.

- 4) None of the information provided in lecture or discussion is meant to be offensive or discriminatory. Some issues may be sensitive for you personally, but the discussion is not intended to single out anyone. *** If you have any condition that requires special accommodations in testing or class structure, please advise the instructor at the beginning of the semester so that appropriate action can be taken. ***

ATTENDANCE POLICY

- 1) Class Attendance and Participation. **Attendance is required (See ATTENDANCE POLICY)**, and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) **All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.**
- 4) **More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!**

CELL PHONE / I-PHONE POLICY

- 1) **Students must turn off or silence cell phones, i-phone, and pagers while in class and will place them in a designated area in the classroom. If you are seen using these devices you will be asked to leave the classroom and will be counted as an unexcused absence. Computer laptops and tablets may be used for note taking only but if used for e-mailing or purposes other than the current class you will be asked to leave the classroom and will be counted as an unexcused absence.**

PLAGIARISM

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. ***Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.***

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.

- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

Title IX of the Education Amendments of 1972 prohibits sex discrimination in educational programs and activities.

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

- 20 U.S.C. § 1681 & C.F.R. Part 106

Sexual misconduct constitutes sexual discrimination and is prohibited by Title IX.

Sexual misconduct is any sexual act which violates the criminal laws of the State of Arkansas or laws of the United States including but not limited to sexual assault (non-consensual sexual contact or intercourse), domestic violence, dating violence, stalking, and sexual exploitation. The Title IX Coordinator oversees the university's compliance with Title IX of the Education Amendments of 1972. The Title IX Coordinator works with university administration, departments, students, faculty, staff, campus police and other support services to ensure that university policies and programs foster a campus community free of illegal gender discrimination and sexual violence.

Amy N. Pennington

Associate Vice President/Dean of Students and Title IX Coordinator

233 Doc Bryan Student Services Center

1605 Coliseum Drive

Russellville, AR 72801

(479) 968-0407

apennington@atu.edu

TRIO – STUDENT SUPPORT SERVICES

“Student Support Services (SSS) is all about student achievement and success. Our goal is to help you succeed at Arkansas Tech University, help you attain graduation with a bachelor's degree, and gain the necessary skills to either enter the work force or enter graduate or professional school.”

Student Support Services

Brown Hall

105 West O Street, Suite 345

Russellville, AR 72801

Phone: (479) 880-4172
Fax: (479) 880-4239
trio.sss@atu.edu

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE INFORMATION

Check your email and Blackboard™ daily and weekly for announcements, assignments and additional information.

Final grade will be cumulative on all components of the class.

Please note that I do not always post quizzes, in-class assignments or attendance.

Course Outline

- I. Introduction to Health, Fitness, and Exercise
 - A. Functional anatomy and physiology
 - B. Developing Physical Fitness and a Positive Health Lifestyle
 - C. Physical activity, health, and performance with health risk appraisal
- II. Testing and Assessments
 - A. PAR-Q, Medical information sheet
 - B. Resting heart rate, Resting Blood Pressure
 - C. Body composition, Body Weight, Anthropometrics
 - D. Cardiovascular Endurance
 - E. Muscular Fitness: Maximal Strength, Local Endurance, Flexibility
- III. Basic Principles of Exercise Programming
 - A. Basic Principles Weight Training (muscular strength and endurance)
 1. Body weight exercises
 2. Basic free weight and weight machine exercises
 - B. Basic Principles Cardiovascular Training
 1. Walking, Jogging, Treadmill
 - C. Basic Principles Flexibility
 1. Static Stretching
 - D. Basic Principles Nutrition and Body Composition
 1. How Exercise Programming Improves Your Body
 2. Guidelines for a Personal Exercise Program
- IV. Nutrition Basics and Taking Personal Control of Health Status
 - A. Basic nutrition for healthful eating
 - B. Nutrition and caloric balance
 - C. Food guide pyramid
- V. Health locus of control
 - A. Behavior, injury, and legal considerations
 - B. Exercise adherence
 - C. Adherence to Resistance Training Programs
 - D. Adherence to Cardiovascular Training Programs
- VI. Final Exam

COURSE ASSIGNMENTS & EXAMS

Grade Title		Points
Quizzes	8 x 15	≈ 120
Exercise Log	12 x 10	= 120
Resource Folio	15 x 10	= 150
Leading a weight training fitness class		= 100
Leading a cardiovascular fitness class		= 100
Personal Exercise Log		= 100
<u>1-month Exercise Program</u>		= 100
Total		= 790

Quizzes: A quiz will be given at the beginning of eight weekly sessions to sample the knowledge acquired from the assigned material. Each quiz is worth a total of approximately (Average 15 points each, Range 12-25 points).

Exercise Log: An exercise log record book will be kept, to record participation in exercise sessions and in personal fitness and recreational activities. The exercise log will be worth a total of 120 points (12 weeks @ 10 points per week).

Resource Folio: A resource folio will be completed during the course and is worth a total of 150 points (15 weeks @ 10 points per week).

Leading a weight training fitness class

Student will develop and instruct classmates through a free weight, weight machine, or combined modes. Class program will include a warm-up, main body, cool down, and proper set-up as needed. The student should use creativity when designing their class program that will be 30 to 50 minutes in length.

Leading a cardiovascular fitness class

Student will develop and instruct classmates through a walking, jogging, cardiovascular machines, or group exercise. Class program will include a warm-up, main body, cool down, and proper set-up as needed. The student should use creativity when designing their class program that will be 30 to 50 minutes in length.

Personal Exercise Log: An exercise logbook should be kept, and each student must write they work out that day. The duration of the workout, what was accomplished, sets, reps, intensity, and duration of the workout will be included. This log is more detailed (e.g. Leg Press 150 lbs. x 5 sets x 10 repetitions with 2 minute rests; Hiked for 20 minutes totaling 30,000 steps in 80°F temperatures, on Saturday at Mount Magazine State Park) than the exercise log which will be general information of what was conducted (e.g. Hiked for 20 minutes). The personal exercise log will be turned in on the last day of class.

1-month Exercise Program: Each student oversees designing a one-month exercise program

to increase overall physical fitness. It will be up to the student to decide the intensity based on who they expect to train or for themselves. The plan should consist of at least two workouts per week and include a warm-up, main body of a program, and a cool down.

Bibliography

- American College of Sports Medicine. (2018) ACSM's Guidelines for exercise testing and prescription, 10th ed. Wolters Kluwer, Philadelphia, PA. ISBN: 978-1-4963-3906-5
- Gibson, AL, Wagner, DR, and Heyward, VH. (2019) Advanced fitness assessment and exercise prescription, 8th ed. Human Kinetics, Champaign, IL. ISBN: 978-1-4925-6134-7

Coaching Rubric

Task	Criteria	Low Standards	Moderate Standards	High standards	Pts
1. Attire	Dresses for occasion	Clothing is stained or torn, and inappropriate for activity/class	Clothing and shoes have some dirt but overall clean	Clean shorts, pants, t-shirt or collared short-sleeves, Clean athletic shoes	5
2. Mannerisms	Volume, speed, & clarity, poise	Reads presentation from notes or slides, difficult to hear, multiple unrelated gestures	Speaks clearly at adequate volume, rushes, pauses or makes unrelated gestures (i.e. um, uh), avoids eye contact	Clear, relaxed speech throughout, uses speech to effectively emphasize main points, few nervous gestures, use of eye contact.	5
3. Use of technology and Additional materials	PowerPoint, video, images, audio &/or hand-outs	Disorganized, repetitive, includes every word of presentation in slides. None observed	Slides are concise, organized, minimal repetition. 2-4 observed (may be included in ppt)	Additional details in slide background, transitions, etc. 5 or more observed (may be included in ppt)	15
4. Vocabulary	Correct terminology	Frequent use of slang/text expressions, no explanation of specific terms	Occasional use of slang, explains program specific terms	Professional vocabulary & terminology used throughout	10
5. Writing errors in slides or handouts	Spelling, grammar, punctuation, word use	> 6 errors noticed	4-6 errors noticed	1-3 errors noticed	10
6. Timeframe	Length of class time	Unsuccessfully utilized entire class time ($\leq 75\%$ of class time)	Completed $>75\%$ but $< 90\%$ of class time	Effectively used class time and disseminated information	10
7. Answered questions	Asks for questions, answers questions	Unable to answer or unclear, incorrect answers for 50% of questions	Rambling when answering, answered 75%	Clear, direct answer to all questions, and answered 100%	5
8. Content	Accuracy of information	Information was general; lack of peer-review support; did not address topic	Information had only < 3 professional and 3 peer-review references; presented 50% topic	Information had > 3 professional and >3 peer-review references; presented topic	40

Labs and writing assignments will be evaluated based on the following criteria.

Criteria	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points expected with a significant amount of detail. Key points and sub-points clearly delineated	The material is organized and covers 70-90% of key points expected with some detail. One or two elements do not seem to be clearly related to topic. 4-6 errors	The material covers 50-69% of key points expected. Minimal detail provided; some points seem vague or unclear or incorrect. 7-9 errors	The material is missing many of the key points expected. Thoughts are scattered, with minimal or incorrect detail. >10 errors
Professional writing (35 points)	There are less than 3 errors in the following areas: Spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, flow and transition.	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

HES 2003

Course Title: Field-Based Experiences in Health and Exercise Science

Instructor Information:

Name: Troy Norton
Office Hours: Monday/Wednesday (10:00-11:00)
Tuesday/Thursday (8:30-9:30A.M.) (11:00-12:00)
Friday/ (10:00 -11:00 A.M.)
Office: Hull 104
Phone: 479-968-0428
E-mail: tnorton@atu.edu

Academic Credit: 3 hours

Prerequisites: Level II Admission

Catalog Description:

This course provides the prospective Wellness/Fitness professional with an opportunity to observe on-site a community based wellness/fitness agency or business. A combination of classroom and on-site experiences will direct the student's focus to various aspects of commercial or institutional programs and services aimed at life enhancement. Specific lectures-class meetings and at least 30 hours of observation in an agency or business setting will be required.

Required Text: Careers in Sports, Fitness, and Exercise

Course Description:

This course serves as introduction to the Wellness field and its foundations. This course is going to explore different types of career opportunities and determine requirements for advanced study. The student will explore what the necessary coursework would be when applying to several profession of interest.

Justification/Rationale for course:

This course will provide wellness/fitness majors early on-site field experience opportunities. These experiences will give the student further insight into the skills necessary to becoming a wellness/fitness professional. Students will also learn that there is a wide variety of professional options related to wellness/fitness.

Competencies:

1. Develop an understanding and appreciation of health and wellness concepts.
2. Develop an understanding of the role of the fitness and wellness educator.
3. Gain knowledge concerning the goals and values of fitness/wellness education and the effects it has on our community.
4. Develop and express a personal philosophy of fitness/wellness education, relative to qualification and certification.
5. Become familiar with the various professions within health, fitness/wellness education, relative to qualification and certification.

Educational Opportunities:

1. Lectures, Discussions, and Class activities
2. Guest speakers from various wellness fields.
3. Group tours of corporate, commercial, and clinical sites

Assessment Methods:

Evaluation:

Attendance	(100 points)
Three Unit Test	(300 points)
Paper	(100 points)
Homework/Quizzes	(100 points)
Total:	(650 points)

Grading Scale:

89.5%-100%	A
79.5%-89.4%	B
69.5%-79.4%	C
59.4%-69.4%	D
Below 59%	F

Policy on Absences, Cheating, and Plagiarism, etc.

Attendance of students is expected for all lectures. Students are expected to exhibit appropriate conduct as outlined in the University policy regarding academic dishonest/misconduct. The University's student rights policy will be followed. Students may file informal or formal complaints by following the academic grievance policies as outlined in the Student Handbook.

Attendance is expected. The student will receive a grade for attendance, you will receive 3 points a day for being in class, and if you are not in class you do not receive the points. **This course does not meet every time on the calendar. It is the student's responsibility to keep up with class when the class is meeting in person or online.**

Cell Phones:

Cell phones should be turned off or should be put on “silent” and put away when you are in class. Do not text or have your phone out during class.

Exams:

All exams and quizzes will be online for the semester unless something happens during the semester. You will have 24 hours to take the test. If you miss an exam for any reason without contacting the instructor, you will be assigned a grade of zero (0). If arrangements have been made with the instructor, the student will have three (3) school days to either make-up an exam or turn in homework assignments. All make-up exams will be given during the instructors listed office hours. All homework assignments must be typed and stapled in order to be accepted. If you are making up an exam you will be taking a different exam than what the class has taken.

Reflection Papers:

1. Students will type a paragraph reflection of each guest speaker. Reflection paragraph shall include the main ideas that the speaker presented, what are they day to day duties, and how you will apply this information with your career.
2. Students will also type a reflection paper about the site they are placed in to observe work. This should be about what you learned about the job site, what were there responsibilities that you did not know about, what kind of patience they were working with and the care they provided.

Paper:

The students will write a 3-page paper over their preferred field of study, sources may include interviews with professionals, research, job descriptions, etc.

COVID-19

Classroom Behavior Each member of the Arkansas Tech University community is obliged to conduct her/himself in a non-disruptive manner in the classroom. If a student is being disruptive, the instructor will address the situation, discussing behavioral expectations moving forward, and emphasize possible consequences for failing to comply. If the disruptive behavior persists, the student may be suspended on an interim basis from the class. Instructors may report excessive and/or repeated disruptive behavior through the Procedures for Addressing Violations of Academic Integrity and Classroom Behavior. This process includes an appeals process student may use to challenge perceived violations or excessive penalties. Students who exhibit disruptive behavior may also be referred to the Department of Student Conduct (see Article III, Section C of the Arkansas Tech University Student.

If a classroom incident constitutes an emergency (e.g., any immediate threat to life and/or property) and requires an immediate response from police, fire, or emergency medical services, please call 911

COVID-19 Considerations:

In order to help keep our ATU community safe, healthy, and to prevent the spread of COVID-19, students must follow several steps:

1. Masks must be worn by all students in public spaces, including classrooms and laboratories. Any student showing up for class without a mask will be given the opportunity to retrieve one. Entry into classrooms and laboratories without a mask will be prohibited. Please refer to the guidance from CDC as to the proper use of cloth masks (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-gettingsick/how-to-wear-cloth-face-coverings.html>). Note that CDC does not recommend the use of a face shield in the place of a cloth mask (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-gettingsick/cloth-face-cover-guidance.html>).
2. All students are required to participate in a daily health self-screen (<https://www.atu.edu/pandemicrecovery/student-healthscreening.php>). For students commuting to campus, please complete before coming to campus. For residential students, please complete each day before leaving your residence hall. If you do not own a thermometer, please have your temperature taken at one of the temperature testing sites listed in the student health screening document and repeated below: • Department of Public Safety available beginning July 6th (716 N El Paso Avenue); Monday-Friday; 8am-5pm • Health and Wellness Center available beginning August 3rd (outdoor tent station by north entrance of Doc Bryan Student Services Center); Monday-Friday; 8am-5pm • University Commons Clubhouse available beginning August 10th; Monday-Friday; 8am-10pm and Sunday; 5pm-10pm.
3. All students must maintain at least 6 feet of distance from every person present in all instructional spaces used in this course (classrooms, laboratories, etc.).
4. Any student who tests positive for COVID-19 is asked to self-report to the ATU Health and Wellness Center by calling (479) 968-0329 or sending email to hwc@atu.edu. Doing so will allow the university to communicate directly with others who might have been exposed to the virus and take any appropriate cleaning and sanitizing measures.

Students are expected to abide by the above steps per the Student Handbook section on Classroom Behavior.

For more information about ATU COVID-19 policies, please refer to the ATU Pandemic Framework (<https://www.atu.edu/pandemicrecovery/docs/Pandemic%20Framework2020.pdf>) as well as the University's Pandemic Recovery webpage (<https://www.atu.edu/pandemicrecovery/>).

HES 2013 Weight Training for Personal Trainers, HS Coaches, and Physical Educators

**Arkansas Tech University
Department of Health and Physical Education**

Instructor

Phone:

E-mail:

Office Hours:

COURSE DESCRIPTION

This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. cleans, snatches, front squats, bent over rows, etc.) that can be integrated into a weight training for the development of muscular strength, hypertrophy, and power. Coaching and teaching strategies will be discussed and practices that includes weight training safety, exercise technique assessment, testing, and programming methods.

Prerequisite: HES 1003 Intro Exercise Programming

Course Objectives:

- 1) Become familiar with various types of training principles, methods and exercise instruction to improve an individuals' muscular strength performance.
- 2) Learn exercise/drill technique for improvement of muscular strength.
- 3) Describe proper spotting technique and identify/predict common mistakes compromising exercise safety and limiting efficient exercise technique
- 4) Describe and perform the proper methods for engaging safely in weightlifting and other weight training exercises.
- 5) Learn the research related to muscular development specific to weightlifting and weight training exercises.
- 6) Develop an understanding of the competencies and proficiencies of personal training, coaching, and physical education.

Required Book:

- **Strength Training, 2nd Ed. (2017) NSCA -National Strength & Conditioning Association, Lee Brown, Ed. Human Kinetics. Champaign, IL. ISBN: 9781492522089**

COURSE PROCEDURES AND EXPECTATIONS

- 1) Professional job expectations include the fact that you will arrive to work "on time." This course should be treated the same, as it is a direct link to your future professional success. Participation points will be deducted for each late arrival (for class lectures and labs).
- 2) I expect you to work hard every day and I expect you to respect and help each other during every class.
- 3) Athletic apparel should be worn during gymnasium, weight-room and lab sessions. This means athletic shoes (e.g. cross-trainers), t-shirts, and shorts or athletic pants. Failure to arrive dressed for and participate in activities will result in a **5-point deduction**.

- 4) You will need access to a computer, the web, and a word processing program for course assignments.
- 5) **ALL WRITING ASSIGNMENTS:** For credit, assignments must be typed, Times New Roman font, double-spaced, 12-point font size, and in APA format as set by the university. In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. **NO LATE ASSIGNMENTS WILL BE ACCEPTED***. Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date and time) will only be accepted under unusual circumstances** and if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a “0” grade for the assignment.
- 6) **Assignments must reflect original work. Although problem-solving in groups is recommended, students may not turn in assignments that are identical to one another. Assignments turned in by students that have large volumes of information that are identical to each other constitutes a violation of the Student Code, and will receive no credit. (See PLAGIARISM Section)**
- 7) Students will not be allowed to take the course if the required prerequisites have not been completed.
- 8) Students are responsible for knowing the registration, drop, withdrawal, and final exam dates for the semester.

*Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies. Assignments are due at the **beginning** of the class and will not be accepted as email attachments unless otherwise approved in advance.

**Examples of unusual circumstances include a death in the immediate family, illness that requires medical treatment (documentation will be requested) or an emergency that your attention is required. Computer and/or printer error on the day an assignment is due is NOT considered an unusual circumstance. University-sponsored trips and/or functions are considered excused absences.

STUDENT RESPONSIBILITIES

- 1) Respect for the class members and the professor. **All electronic communications devices including cell phones will be placed in a designated area or will be turned off during class and placed in your bag (See CELL PHONE / I-PHONE POLICY).** Students who are texting, playing games, sleeping or being disruptive distract those who are trying to listen and participate, will be dismissed from the course and counted as unexcused absence. If you are tired or feel the need to use your phone leave the classroom and return when you are finished. It will be your responsibility to ask your classmates to assist you with the material missed.
- 2) During any activity portion of the course, students are expected to use respectful language and support their classmates regardless of size, shape or abilities.
- 3) Dress appropriately for the practical portion of class. For your safety and respect for others, please wear modest, comfortable clothing. Shoes, preferably tennis shoes, must

be worn at all times. Professional attire is mandatory when working with clients and examples of professional attire is warm-up pants, clean shorts, and collared shirts. If profane or clothing that is not preapproved, then the student will lose a full letter grade for the hands-on portion of the course.

- 4) None of the information provided in lecture or discussion is meant to be offensive or discriminatory. Some issues may be sensitive for you personally, but the discussion is not intended to single out anyone. *** If you have any condition that requires special accommodations in testing or class structure, please advise the instructor at the beginning of the semester so that appropriate action can be taken. ***

ATTENDANCE POLICY

- 1) Class Attendance and Participation. **Attendance is required (See ATTENDANCE POLICY)**, and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) **All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.**
- 4) **More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!**

CELL PHONE / I-PHONE POLICY

- 1) **Students must turn off or silence cell phones, i-phone, and pagers while in class and will place them in a designated area in the classroom. If you are seen using these devices you will be asked to leave the classroom and will be counted as an unexcused absence. Computer laptops and tablets may be used for note taking only but if used for e-mailing or purposes other than the current class you will be asked to leave the classroom and will be counted as an unexcused absence.**

PLAGIARISM

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. ***Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.***

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.
- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

Title IX of the Education Amendments of 1972 prohibits sex discrimination in educational programs and activities.

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

- 20 U.S.C. § 1681 & C.F.R. Part 106

Sexual misconduct constitutes sexual discrimination and is prohibited by Title IX.

Sexual misconduct is any sexual act which violates the criminal laws of the State of Arkansas or laws of the United States including but not limited to sexual assault (non-consensual sexual contact or intercourse), domestic violence, dating violence, stalking, and sexual exploitation. The Title IX Coordinator oversees the university's compliance with Title IX of the Education Amendments of 1972. The Title IX Coordinator works with university administration, departments, students, faculty, staff, campus police and other support services to ensure that university policies and programs foster a campus community free of illegal gender discrimination and sexual violence.

Amy N. Pennington

Associate Vice President/Dean of Students and Title IX Coordinator

233 Doc Bryan Student Services Center

1605 Coliseum Drive

Russellville, AR 72801

(479) 968-0407

apennington@atu.edu

TRIO – STUDENT SUPPORT SERVICES

“Student Support Services (SSS) is all about student achievement and success. Our goal is to help you succeed at Arkansas Tech University, help you attain graduation with a bachelor's degree, and gain the necessary skills to either enter the work force or enter graduate or professional school.”

Student Support Services
Brown Hall
105 West O Street, Suite 345
Russellville, AR 72801
Phone: (479) 880-4172
Fax: (479) 880-4239
trio.sss@atu.edu

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE INFORMATION

Check your email and Blackboard™ daily and weekly for announcements, assignments and additional information.

Final grade will be cumulative on all components of the class.

Please note that I do not always post quizzes, in-class assignments, or attendance.

Course Outline

- I. Basic Planning, Programming, and Application of Weight Training
 - A. General Population versus Athletic Performance
 - B. Strength, Endurance, Power
 - C. Youth (Under 13 years)
 - D. Pre-adolescence and Adolescence
 - E. Adult 18+ years old
 - F. Senior Population >60 years old
- II. Weight Training Planning and Programming
 - A. Planning long-term progressions and Testing
 - B. Programming for week and session
 - C. Developing an school curriculum
 - D. Developing an training program
 - E. Developing an youth S&C program
 1. Weight Training Goals
 - a. Maximal Strength
 - b. Submaximal Strength
 - c. Strength-Speed
 - d. Strength-Endurance
 - e. Muscular Hypertrophy
- III. Deadlifts
 - A. Conventional-Style

- B. Sumo-Style
- C. Stiffed-Legged/ “Romanian DL”
- D. Dumbbell and Hex Bar DL
- E. Coaching/Instruction of Weight-training
- IV. Squats
 - A. Belt, Back, and Front Squats
 - B. Overhead Squats
 - C. Split Squats and Lunges
 - D. Step-ups and Rear-leg Elevated Split Squats
 - E. Coaching/Instruction of Weight-training
- V. Weightlifting Movements
 - A. Full, Power, Muscle Snatch & Clean
 - B. Start Positions: Floor; Hang and Block Hip, Mid-thigh, Above Knee, Below Knee
 - C. Pulls, High Pulls, Push Presses, Push Jerk, Squat Jerks, and Split Jerks
 - D. Coaching/Instruction of Weight-training
- VI. Pressing Exercises
 - A. Machine, Dumbbell and Barbell Shoulder Press
 - B. Machine, Dumbbell and Barbell Bench Press Supine, Incline, Decline
 - C. Machine and Dumbbell Chest Fly, Rear Delt. Fly
 - D. Coaching/Instruction of Weight-training
- VII. Pulling Exercises
 - A. Machine, Dumbbell and Barbell Rowing
 - B. Lat Pulldown, Pull-up, Chin-up
 - C. Coaching/Instruction of Weight-training
- VIII. Posterior Chain and Trunk
 - A. Good Morning, Reverse Hyper Extension, Nordic Curls
 - B. Trunk Twists, MB Sit-ups, “Land-mine” Barbell Core trainer
 - C. Coaching/Instruction of Weight-training
- IX. Additional Resistance Training
 - A. Elastic Bands and Tubes
 - B. Kettlebell Specific Exercises
 - C. Coaching/Instruction of Weight-training
- X. Present Programs
- XI. Personal Training/Coaching/Teaching Practical
- XII. Exam Final (Finals Week)

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Hypertrophy Training Program	= 100
Maximal Strength Training Program	= 100
Strength-speed Training Program	= 100
Strength-endurance Training Program	= 100
Final Weight Training Program for a Team or Training Group Presentation	= 100
Personal Training/Coaching/Teaching Practical	= 100
<u>Final Exam</u>	<u>= 100</u>
Course Total Points	= 700

ARTICLES:

You will be tasked to acquire **PEER REVIEWED** articles outside of the ones provided to you on Blackboard™ for the completion of assignments and lab write-ups. **Use of non-peer reviewed articles (web articles from www.livestrong.com, www.bodybuilding.com, www.elitefts.com, www.crossfit.com, www.ymca.net, etc. are not acceptable sources for articles use as these are not peer-reviewed articles)** will result in a 5 point deduction for EACH OCCURRENCE. It would be advisable to ask the instructor if your article is peer-reviewed and the correct referencing format is used prior to turning in your completed assignment. Take the time to read the article and if you are unsure or require clarity of a statement please do not hesitate to ask the instructor.

Examples:

1. Brown JR, Alsarraf BJ, Waller M, Eisenman P, and Hicks-Little CA. Rotational Angles and Velocities During Down the Line and Diagonal Across Court Volleyball Spikes. *International J Kines Sports Sci.* 2(2): 1-8, 2014.
2. Siff MC. Biomechanical Foundations of Strength and Power Training. In, *Biomechanics in Sport: Performance enhancement and injury prevention*. Ed. Zatsiorsky VM. Oxford, England: Blackwell Science Ltd; Pp. 103-142, 2000.
3. Waller M, Townsend R, and Gattone M. Application of the power snatch for athletic conditioning. *Strength Cond J.* 29(3):10-20, 2007.

Program Assignments:

The purpose of this assignment is to improve your knowledge on the development of weight training programs to obtain a specific physical quality. The weight training programs will be a 2-week example (microcycle) of exercises, volume, intensity, exercise order and rest (there other variables) specific to a training goal. The program will have 3 to 5 training days per week that will be 45 to 90-minutes in length that will include a warm-up, main body, and cool-down. The programs will be developed for each of the following four goals over the course of the semester:

1. Hypertrophy
2. Maximal Strength
3. Strength-speed
4. Strength-endurance.

Write a minimum 2 to 4-page paper on how the exercises will achieve the goal of the program. The paper will explain the program, what will be achieved, and how this will be progressed and include 5 peer-reviewed sources required.

Program Presentation:

Develop a 4-week strength and conditioning program for a specific population (e.g. youth, senior), along with a specific goal (e.g. ice hockey, low back strength). Students will have an option list to select the population and goal they will develop a program. The program will be the last 4 weeks of a general preparation phase and will address the following questions. You will need to provide a 1-page summation paper of your program that will include a reference section that has 1-2 textbook(s) and 4-5 peer-reviewed articles that is in correct format. The presentation will be 5-6 minutes in length and does not include question and answer time.

1. Does the program effectively address the goal?
2. Why are the exercises, volume, intensity, and recovery selected?

3. What tests and evaluations are used and why?
4. What references support your S&C plan? (Citations needed) at end of presentation.
5. What type of stretching and warm-up will be used and why?
6. What physiological adaptations do you expect to occur?

Personal Training/Coaching/Teaching Practical Exercise Sample List to be used.

1. Hang Mid-thigh (HMT) Muscle Snatch and Muscle Clean
2. Snatch Pull and Snatch High Pull
3. Clean Pull and Clean High Pull
4. Hang Above Knee (HAK) Power Snatch and Power Clean
5. Power Snatch
6. Power Clean
7. Front Squat with Dumbbells and with Barbell
8. Back Squat with Safety Squat Bar and with Barbell
9. Belt Squat and Leg Press
10. Alternating Lunges and Rear Leg Elevated Split Squats
11. Dumbbell Deadlift and Hex Bar Deadlift
12. Conventional Deadlift and Sumo Deadlifts
13. Stiffed Leg Deadlift (aka. Romanian Deadlift) and Glute-Ham Raise
14. Shoulder Press with Dumbbells and with Barbell
15. Push Press and Push Jerk
16. Bent Over Row and Pull-up
17. 1-arm Dumbbell Row and Pulldown
18. Kettlebell Swings and Snatch
19. Supine Bench Press with Dumbbells and with Barbell
20. Incline Bench Press with Dumbbells and with Barbell

Bibliography (supplemental reading list):

- **Bompa, TO, and Buzzichelli, CA. Periodization: Theory and Methodology of Training, 6th ed. Human Kinetics. Champaign, IL. 2019.**
- **Epley, B. The path to athletic power. Human Kinetics. Champaign, IL. 2004.***
- **Fleck, S.J. and W.J. Kraemer. Designing Resistance Training Programs, 4th edition. Human Kinetics. Champaign, IL. 2014.**
- **Piper, T.J. and M.A. Waller. Power Training. Waller & Piper. Lake in the Hills, IL, 2008.***
- **Stone, MH, Stone, M, and Sand, WA. Principles and Practice of Resistance Training. Human Kinetics. Champaign, IL. 2007.***
- **Verstegen, M. and P. Williams. Core Performance. Rodale, Inc. 2004.***

***books used for unique information provided from these texts not available in other textbooks**

Coaching Practical Rubric

Task	Criteria	Low Standards	Moderate Standards	High standards	Pts
1. Attire	Dresses for occasion	Clothing is stained or torn, and inappropriate for activity/class	Clothing and shoes have some dirt but overall clean	Clean shorts, pants, t-shirt or collared short-sleeves, Clean athletic shoes	5
2. Mannerisms	Volume, speed, & clarity, poise	Reads presentation from notes or slides, difficult to hear, multiple unrelated gestures	Speaks clearly at adequate volume, rushes, pauses or makes unrelated gestures (i.e. um, uh), avoids eye contact	Clear, relaxed speech throughout, uses speech to effectively emphasize main points, few nervous gestures, use of eye contact.	5
3. Use of technology and Additional materials	PowerPoint, video, images, audio &/or hand-outs	Disorganized, repetitive, includes every word of presentation in slides. None observed	Slides are concise, organized, minimal repetition. 2-4 observed (may be included in ppt)	Additional details in slide background, transitions, etc. 5 or more observed (may be included in ppt)	15
4. Vocabulary	Correct terminology	Frequent use of slang/text expressions, no explanation of specific terms	Occasional use of slang, explains program specific terms	Professional vocabulary & terminology used throughout	10
5. Writing errors in slides or handouts	Spelling, grammar, punctuation, word use	> 6 errors noticed	4-6 errors noticed	1-3 errors noticed	10
6. Timeframe	Length of class time	Unsuccessfully utilized entire class time ($\leq 75\%$ of class time)	Completed $>75\%$ but $< 90\%$ of class time	Effectively used class time and disseminated information	10
7. Answered questions	Asks for questions, answers questions	Unable to answer or unclear, incorrect answers for 50% of questions	Rambling when answering, answered 75%	Clear, direct answer to all questions, and answered 100%	5
8. Content	Accuracy of information	Information was general; lack of peer-review support; did not address topic	Information had only < 3 professional and 3 peer-review references; presented 50% topic	Information had > 3 professional and >3 peer-review references; presented topic	40

Labs and writing assignments will be evaluated based on the following criteria.

	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points expected with a significant amount of detail. Key points and sub-points clearly delineated	The material is organized and covers 70-90% of key points expected with some detail. One or two elements do not seem to be clearly related to topic. 4-6 errors	The material covers 50-69% of key points expected. Minimal detail provided; some points seem vague or unclear or incorrect. 7-9 errors	The material is missing many of the key points expected. Thoughts are scattered, with minimal or incorrect detail. >10 errors
Professional writing (35 points)	There are less than 3 errors in the following areas: Spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, flow and transition.	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

HES 2023 Endurance Programming and Conditioning

**Arkansas Tech University
Department of Health and Physical Education**

Instructor

Phone:

E-mail:

Office Hours:

COURSE DESCRIPTION

This course is designed to provide students the opportunity to understand the various methods of coaching and teaching endurance focused exercises, activities, and programming. Basic endurance principles, techniques, and application of programming will meet the instructional needs of personal trainers, strength & conditioning coaches, and sport coaches.

Prerequisite: HES 1003 Intro Exercise Programming

Course Objectives:

- 1) Become familiar with various types of training principles, methods and exercise instruction to improve an individuals' endurance performance.
- 2) Learn exercise/drill technique for improvement of cardiovascular, aerobic, and anaerobic endurance.
- 3) Describe proper/safe exercise technique, identify/predict common mistakes compromising exercise safety, and establish a safe training environment.
- 4) Describe, perform, and coach/instruct the proper methods for engaging safely in cardiovascular, aerobic, and anaerobic endurance exercises.
- 5) Learn the research related to cardiovascular, aerobic, and anaerobic endurance training.
- 6) Develop an understanding of the competencies and proficiencies of personal training, and coaching.

Required Books:

- **Developing Endurance (2012) NSCA -National Strength & Conditioning Association, Ben Reuter, Ed. Human Kinetics. Champaign, IL. ISBN: 9780736083270**

COURSE PROCEDURES AND EXPECTATIONS

- 1) Professional job expectations include the fact that you will arrive to work "on time." This course should be treated the same, as it is a direct link to your future professional success. Participation points will be deducted for each late arrival (for class lectures and labs).
- 2) I expect you to work hard every day and I expect you to respect and help each other during every class.
- 3) Athletic apparel should be worn during gymnasium, weight-room and lab sessions. This means athletic shoes (e.g. cross-trainers), t-shirts, and shorts or athletic pants. Failure to arrive dressed for and participate in activities will result in a **5-point deduction**.
- 4) You will need access to a computer, the web, and a word processing program for course assignments.

- 5) **ALL WRITING ASSIGNMENTS:** For credit, assignments must be typed, Times New Roman font, double-spaced, 12-point font size, and in APA format as set by the university. In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. **NO LATE ASSIGNMENTS WILL BE ACCEPTED***. Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date and time) will only be accepted under unusual circumstances** and if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a “0” grade for the assignment.
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- 7) Students will not be allowed to take the course if the required prerequisites have not been completed.
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*Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies. Assignments are due at the **beginning** of the class and will not be accepted as email attachments unless otherwise approved in advance.

**Examples of unusual circumstances include a death in the immediate family, illness that requires medical treatment (documentation will be requested) or an emergency that your attention is required. Computer and/or printer error on the day an assignment is due is NOT considered an unusual circumstance. University-sponsored trips and/or functions are considered excused absences.

STUDENT RESPONSIBILITIES

- 1) Respect for the class members and the professor. **All electronic communications devices including cell phones will be placed in a designated area or will be turned off during class and placed in your bag (See CELL PHONE / I-PHONE POLICY).** Students who are texting, playing games, sleeping or being disruptive distract those who are trying to listen and participate, will be dismissed from the course and counted as unexcused absence. If you are tired or feel the need to use your phone leave the classroom and return when you are finished. It will be your responsibility to ask your classmates to assist you with the material missed.
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- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.
- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.

9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

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Amy N. Pennington

Associate Vice President/Dean of Students and Title IX Coordinator

233 Doc Bryan Student Services Center

1605 Coliseum Drive

Russellville, AR 72801

(479) 968-0407

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TRIO – STUDENT SUPPORT SERVICES

“Student Support Services (SSS) is all about student achievement and success. Our goal is to help you succeed at Arkansas Tech University, help you attain graduation with a bachelor's degree, and gain the necessary skills to either enter the work force or enter graduate or professional school.”

Student Support Services

Brown Hall

105 West O Street, Suite 345

Russellville, AR 72801

Phone: (479) 880-4172

Fax: (479) 880-4239

trio.sss@atu.edu

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE INFORMATION

Check your email and Blackboard™ daily and weekly for announcements, assignments and additional information.

Final grade will be cumulative on all components of the class.

Please note that I do not always post quizzes, in-class assignments or attendance.

Course Outline

- I. Basic Planning, Programming, and Application
 - A. General Population versus Athletic Performance
 - B. Cardiovascular, aerobic, and anaerobic endurance
 - C. Youth (Under 13 years)
 - D. Pre-adolescence and Adolescence
 - E. Adult 18+ years old
 - F. Senior Population >60 years old
- II. Planning and Programming for cardiovascular, aerobic, and anaerobic endurance
 - A. Planning long-term progressions and Testing
 - B. Programming for week and session
 - C. Developing a school curriculum
 - D. Developing a training program
 - E. Developing a youth S&C program
- III. Cardiovascular, aerobic, and anaerobic endurance Machines
 - A. Treadmills (Motorized and Self-Powered)
 - B. Ellipticals
 - C. Cycles (Upright, Recumbent, Fan-“Airdyne”)
 - D. Stair Climbers
 - E. Rowers
- IV. Aerobic Conditioning (Jogging, Running, Cycling, Swimming)
 - A. Long-Slow Distance Training
 - B. Fartleks
 - C. Tempo/Pace
 - D. Interval
 - E. Maximal Lactate Steady State Training
- V. Aerobic/Anaerobic Conditioning
 - A. High Intensity Interval Training
 - B. Circuit Training Methods
 - C. Medicine Ball and Plyometric Tempos
 - D. Repeated Sprint Intervals
- VI. Additional Endurance Training Methods
 - A. Battling Ropes
 - B. Group Exercise Class
 - 1. Low impact
 - 2. Step
 - C. Altitude and Hypoxic Training
- VII. Present Programs
- VIII. Personal Training/Coaching/Teaching Practical
- IX. Exam Final (Finals Week)

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Machine based Training Program	= 100
Field (Outdoor) based Training Program	= 100
Group Endurance Training Program	= 100
Interval based Training Program	= 100
Final Endurance Program for a Team or Training Group Presentation	= 100
Personal Training/Coaching/Teaching Practical	= 100
Final Exam	= 100
Course Total Points	= 700

ARTICLES:

You will be tasked to acquire **PEER REVIEWED** articles outside of the ones provided to you on Blackboard™ for the completion of assignments and lab write-ups. **Use of non-peer reviewed articles (web articles from www.livestrong.com, www.bodybuilding.com, www.elitefts.com, www.crossfit.com, www.ymca.net, etc. are not acceptable sources for articles use as these are not peer-reviewed articles)** will result in a 5 point deduction for EACH OCCURRENCE. It would be advisable to ask the instructor if your article is peer-reviewed and the correct referencing format is used prior to turning in your completed assignment. Take the time to read the article and if you are unsure or require clarity of a statement please do not hesitate to ask the instructor.

Examples:

1. Brown JR, Alsarraf BJ, Waller M, Eisenman P, and Hicks-Little CA. Rotational Angles and Velocities During Down the Line and Diagonal Across Court Volleyball Spikes. International J Kines Sports Sci. 2(2): 1-8, 2014.
2. Siff MC. Biomechanical Foundations of Strength and Power Training. In, Biomechanics in Sport: Performance enhancement and injury prevention. Ed. Zatsiorsky VM. Oxford, England: Blackwell Science Ltd; Pp. 103-142, 2000.
3. Waller M, Townsend R, and Gattone M. Application of the power snatch for athletic conditioning. Strength Cond J. 29(3):10-20, 2007.

Program Assignments:

The purpose of this assignment is to improve your knowledge on the development of training programs to obtain a specific physical quality. The endurance training programs will be a 2-week example (microcycle) of exercises, volume, intensity, exercise order and rest (there other variables) specific to a training goal. The program will have 3 to 5 training days per week that will be 45 to 90-minutes in length that will include a warm-up, main body, and cool-down. The programs will be developed for each of the following four goals over the course of the semester:

1. Machine based Training Program.
2. Field (Outdoor) based Training Program.
3. Group Endurance Training Program.
4. Interval based Training Program.

Write a minimum 2 to 4-page paper on how the exercises will achieve the goal of the program. The paper will explain the program, what will be achieved, and how this will be progressed and include 5 peer-reviewed sources required.

Program Presentation:

Develop a 4-week strength and conditioning program for a specific population (e.g. youth, senior), along with a specific goal (e.g. lacrosse, hiking ability). Students will have an option list to select the population and goal they will develop a program. The program will be the last 4 weeks of a general preparation phase and will address the following questions. You will need to provide a 1-page summation paper of your program that will include a reference section that has 1-2 textbook(s) and 4-5 peer-reviewed articles that is in correct format. The presentation will be 5-6 minutes in length and does not include question and answer time.

1. Does the program effectively address the goal?
2. Why are the exercises, volume, intensity, and recovery selected?
3. What tests and evaluations are used and why?
4. What references support your S&C plan? (Citations needed) at end of presentation.
5. What type of stretching and warm-up will be used and why?
6. What physiological adaptations do you expect to occur?

Personal Training/Coaching/Teaching Practical Exercise Sample List to be used.

1. Motorized Treadmills
2. Self-Powered Treadmills (Assault Runners)
3. Ellipticals
4. Upright and Recumbent Cycles
5. Fan – Assault Bikes
6. Stair Climbers
7. Concept II Rower
8. Jogging and Running
9. Swimming
10. Methods: Long-Slow Distance Training & Fartleks
11. Methods: Tempo/Pace & Interval
12. High Intensity Interval Training
13. Circuit Training Methods
14. Repeated Sprint Intervals
15. Battling Ropes
16. Group Exercise Classes: Low impact and Step

Bibliography:

- Haff, GG, and Triplett, NT, Editors. (2016) Essentials of strength training and conditioning, 4th ed. Human Kinetics, Champaign, IL. ISBN: 978-1-4925-0162-6
- International Council for Coaching Excellence, Association of Summer Olympic International Federations and Leeds Metropolitan University. (2013) *International Sport Coaching Framework, v.1.2*. Human Kinetics, Champaign, IL (ISBN-13: 9781450471275).
- Mujika, I. Tapering and Peaking for Optimal Performance. Human Kinetics. Champaign, IL. 2009.

Coaching Rubric

Task	Criteria	Low Standards	Moderate Standards	High standards	Pts
1. Attire	Dresses for occasion	Clothing is stained or torn, and inappropriate for activity/class	Clothing and shoes have some dirt but overall clean	Clean shorts, pants, t-shirt or collared short-sleeves, Clean athletic shoes	5
2. Mannerisms	Volume, speed, & clarity, poise	Reads presentation from notes or slides, difficult to hear, multiple unrelated gestures	Speaks clearly at adequate volume, rushes, pauses or makes unrelated gestures (i.e. um, uh), avoids eye contact	Clear, relaxed speech throughout, uses speech to effectively emphasize main points, few nervous gestures, use of eye contact.	5
3. Use of technology and Additional materials	PowerPoint, video, images, audio &/or hand-outs	Disorganized, repetitive, includes every word of presentation in slides. None observed	Slides are concise, organized, minimal repetition. 2-4 observed (may be included in ppt)	Additional details in slide background, transitions, etc. 5 or more observed (may be included in ppt)	15
4. Vocabulary	Correct terminology	Frequent use of slang/text expressions, no explanation of specific terms	Occasional use of slang, explains program specific terms	Professional vocabulary & terminology used throughout	10
5. Writing errors in slides or handouts	Spelling, grammar, punctuation, word use	> 6 errors noticed	4-6 errors noticed	1-3 errors noticed	10
6. Timeframe	Length of class time	Unsuccessfully utilized entire class time ($\leq 75\%$ of class time)	Completed $>75\%$ but $< 90\%$ of class time	Effectively used class time and disseminated information	10
7. Answered questions	Asks for questions, answers questions	Unable to answer or unclear, incorrect answers for 50% of questions	Rambling when answering, answered 75%	Clear, direct answer to all questions, and answered 100%	5
8. Content	Accuracy of information	Information was general; lack of peer-review support; did not address topic	Information had only < 3 professional and 3 peer-review references; presented 50% topic	Information had > 3 professional and >3 peer-review references; presented topic	40

Labs and writing assignments will be evaluated based on the following criteria.

Criteria	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points expected with a significant amount of detail. Key points and sub-points clearly delineated	The material is organized and covers 70-90% of key points expected with some detail. One or two elements do not seem to be clearly related to topic. 4-6 errors	The material covers 50-69% of key points expected. Minimal detail provided; some points seem vague or unclear or incorrect. 7-9 errors	The material is missing many of the key points expected. Thoughts are scattered, with minimal or incorrect detail. >10 errors
Professional writing (35 points)	There are less than 3 errors in the following areas: Spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, flow and transition.	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

HES 3003 Exercise Prescription (3)

Spring 2020

Arkansas Tech University

Department of Health and Physical Education

Dr. Michael Waller USAW-L2, CSCS, NSCA-CPT, FNSCA

Phone: 479-964-0526

E-mail: mwaller3@atu.edu

Office Hours: M, W, F 9am-10am; TU – TH 9am-11am; or by Appointment

My door is always open, unless I am meeting with another student.

PREREQUISITES:

Undergraduate level WS 2043 Minimum Grade of C and Undergraduate level PE 1201 Minimum Grade of P and Undergraduate level HES 1002 Minimum Grade of C and Undergraduate level ENGL 1013 Minimum Grade of C and Undergraduate level ENGL 1023 Minimum Grade of C and Undergraduate level MATH 1113 Minimum Grade of C and Undergraduate level BIOL 1014 Minimum Grade of C and (Undergraduate level SPH 2173 Minimum Grade of C or Undergraduate level COMM 2173 Minimum Grade of C)

COURSE DESCRIPTION

A course designed to expose the student to the aspects of health-related and skill-related physical fitness, with particular attention given to prescribing exercise programs. Attention will be given to choosing appropriate fitness assessments, along with development of appropriate goals for clientele.

Note: A grade of C or better is required for Health and Physical Education majors.

CATALOG DESCRIPTION

Same as course description

JUSTIFICATION/RATIONALE FOR COURSE

All professional physical educators and wellness-fitness leaders are expected to be well versed and be able to assess and develop individual and group level programs. The need for competent fitness health professionals is ever increasing as the world becomes more concerned about prolonging quality of life through skill and health-related fitness. This course is vital to guide student toward understanding the basic concepts of how to differentiate program development through appropriate evaluation procedures and proper exercise selection as well as adequate progression through feedback, testing, and monitoring.

General Education Guidelines: Not applicable

REQUIRED TEXTBOOKS

Gibson, AL, Wagner, DR, and Heyward, VH. (2019) Advanced fitness assessment and exercise prescription, 8th ed. Human Kinetics, Champaign, IL. ISBN: 978-1-4925-6134-7

American College of Sports Medicine. (2018) ACSM's Guidelines for exercise testing and prescription, 10th ed. Wolters Kluwer, Philadelphia, PA. ISBN: 978-1-4963-3906-5

COMPETENCIES

- 1) Understand the attributes of health-related physical fitness and skill-related physical fitness as they relate to quality of life and life-style.
- 2) Demonstrate administrative and evaluative processes of physical readiness questionnaires and information histories.
- 3) Describe appropriate evaluation procedure for testing physical fitness with particular attention to safety and proficiency.
- 4) Demonstrate administrative knowledge and discuss results of cardiorespiratory, body composition, and musculoskeletal fitness assessment.
- 5) Demonstrate design processes of individual exercise prescriptions for all components of physical fitness.
- 6) Understand the guidelines and current issues regarding the role of exercise in body fat loss.
- 7) Understand current information about aging and physical activity.
- 8) Understand the precautions to apply to physical activity.
- 9) Discuss pertinent trends in physical fitness testing identified in current literature.

“Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.”

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Jennifer Fleming
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Grading Scale (%)

Grading is based on the acceptable completion of quizzes and laboratories, the final exam, and the biomechanical analysis all of which contribute to the accumulation of total points.

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

Assignments and Exams

1. *Exercise Programming Exam* = 100 pts
2. *Body Composition, Blood Pressure, Heart Rate Practical Exam* = 100 pts

3. <i>YMCA submaximal & SKF Practical Exam</i>	= 100 pts
4. <i>Range of motion & Circumference Practical Exam</i>	= 100 pts
5. <i>Final Exam</i>	= 100 pts
6. Topic assignments and Quizzes	= 50-300
7. Aerobic & Cardiovascular Lab write-up	= 100 pts
8. <u>Muscular Strength and Power Testing Lab write-up</u>	= 100 pts
Total Points Possible	= 750-1000 pts

COURSE INFORMATION

Check your email and Blackboard™ daily and weekly for announcements, assignments and additional information.

Final grade will be cumulative on all components of the class.

Please note that I do not always post quizzes, in-class assignments or attendance.

COURSE OUTLINE (Specific tests and exercises are subject to change)

- I. JAN 13 ≈ JAN 31 Exercise Programming
 1. Body fat decrease; increase lean body mass
 2. Special Populations: Seniors, cardiovascular & respiratory disease, diabetes
 3. Aerobic endurance, muscular strength & endurance
 4. Flexibility and mobility
 5. Exercises: energy systems and neuromuscular adaptations (hands-on)
 - a. **Written Exam**
- II. FEB 3 ≈ FEB 21 Body Composition, Blood Pressure, Heart Rate
 1. 7-site skinfold and Circumference Measurements + Calculations
 2. Manual Blood Pressure and Manual Heart Rate during exercise
 - a. **Practical Exam – SKF, Circumference, BP, HR**
- III. FEB 24 ≈ MAR 13 Muscular Strength and Power Testing
 1. YMCA Bench Press, Shoulder (Military) Press, Sumo Deadlift
 2. Push-ups, Pull-ups, Inverted Row
 3. Med. Ball Chest Throw (static & CM)
 4. Jumps: Squat, Countermovement, Approach
 5. Strength to Mass Ratio
- IV. MAR 16 ≈ APR 10 Aerobic and Cardiovascular (Submax & Maximal) Testing
 1. YMCA Submax, Åstrand-Rhyming Bike Ergometer Protocols
 2. Bruce, Balke, Treadmill Protocols
 3. Rowing Ergometer
 4. Elliptical Test
 - a. **Practical Exam - YMCA Submax & SKF**
- V. APR 13 ≈ APR 24 Flexibility and Range of Motion Testing
 1. Goniometer, Inclinator and Skin Distraction Test (pg 324 – 325; Figure 10.9)
 2. Joint mobility testing
 3. Muscle flexibility testing
 - a. **Practical Exam – Goniometer & Circumference**
- VI. **Final Exam**

Writing Assignment Guidelines (Labs) and Rubric

(LATE PAPERS WILL NOT BE ACCEPTED*)

A minimum of **5 peer-reviewed** articles (web articles from www.livestrong.com, www.bodybuilding.com, etc. will result in point deductions as these are not peer-reviewed) will be used as references and properly cited. Graphs, figures and tables are encouraged to be used and should add to the message of the review or bring clarity to a point. For credit, assignments will use font Times New Roman type, 12-point font size, double spaced, and APA format.

NOTE: Figures and Tables do not count towards the final page count. ***Start reading and collecting the information early as possible, as the assignment will take time and the chance of preparing a well written review will be difficult to complete in only a week or a few days. **If you need help with scientific writing, please ask.** In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors.

Lab Write-up Format for Muscular Strength and Power and Aerobic & Cardiovascular Lab, (Team Assignment)

All lab write-ups will be due at the beginning of class, ONE WEEK after the Lab is completed. Start developing the introduction and method sections as they can be drafted prior to the completion of the lab. The Aerobic & Cardiovascular Lab, Muscle & Power Testing Lab have specific requirements and will be listed on the lab sheets, while the additional labs will have these sections that will be part of the write-up.

- Introduction: What tests were used and what did they assess? (2-3 pages)
- Methods: What protocols and steps were followed to conduct these tests? (Page length varies on the tests conducted)
- Results: What values were obtained observed? (Page length varies on the results)
- Discussion: Questions from labs will be entered in this section. (3-10 pages)

ARTICLES:

You will be tasked to acquire **PEER REVIEWED** articles outside of the ones provided to you on Brightspace™ for the completion of assignments and lab write-ups. **Use of non-peer reviewed articles (web articles from www.livestrong.com, www.bodybuilding.com, www.elitefts.com, www.crossfit.com, www.ymca.net, etc. are not acceptable sources for articles use as these are not peer-reviewed articles)** will result in a 5 point deductions for EACH OCCURRENCE. It would be advisable to ask the instructor if your article is peer-reviewed and the correct referencing format is used prior to turning in your completed assignment. Take the time to read the article and if you are unsure or require clarity of a statement please do not hesitate to ask the instructor.

Reference Examples:

1. Brown JR, Alsarraf BJ, Waller M, Eisenman P, and Hicks-Little CA. Rotational Angles and Velocities During Down the Line and Diagonal Across Court Volleyball Spikes. International J Kines Sports Sci. 2(2): 1-8, 2014.
2. Siff MC. Biomechanical Foundations of Strength and Power Training. In, Biomechanics in Sport: Performance enhancement and injury prevention. Ed. Zatsiorsky VM. Oxford, England: Blackwell Science Ltd; Pp. 103-142, 2000.
3. Waller M, Townsend R, and Gattone M. Application of the power snatch for athletic conditioning. Strength Cond J. 29(3):10-20, 2007.

Presentation Rubric

Task	Criteria	Low Standards	Moderate Standards	High standards	Pts
1. Attire	Dresses for occasion	Shorts, t-shirts, shower shoes, stained or torn clothing	Clean jeans/warm-up suit, collared athletic shirt, casual work or athletic shoes	Nice slacks/skirt, button-up shirt or sweater, dress shoes/boots	5
2. Mannerisms	Volume, speed, & clarity, poise	Reads presentation from notes or slides, mumbles, difficult to hear, multiple gestures or expressions unrelated to presentation	Speaks clearly at adequate volume, rushes, pauses or makes gestures or expressions unrelated to presentation, ie: um, uh	Clear, relaxed speech throughout, uses speech effectively to emphasize main points, few nervous gestures/expressions, use of eye contact.	5
3. Use of technology	Uses PowerPoint	Disorganized, repetitive, includes every word of presentation in slides	Slides are concise, organized, minimal repetition	Additional details in slide background, transitions, etc	5
4. Additional materials	Hand-outs, photos, charts, video, graphics	None observed	2-4 observed (may be included in ppt)	5 or more observed (may be included in ppt)	10
5. Vocabulary	Correct terminology	Frequent use of slang/text expressions, no explanation of specific terms	Occasional use of slang, explains program specific terms	Professional vocabulary & terminology used throughout	10
6. Writing errors in slides	Spelling, grammar, punctuation, word use	> 6 errors noticed	4-6 errors noticed	1-3 errors noticed	10
7. Timeframe	Length of class time	Unsuccessfully utilized entire class time ($\leq 75\%$ of class time)	Completed $>75\%$ but $< 90\%$ of class time	Effectively used class time and disseminated information	10
8. Answered questions	Asks for questions, answers questions	Unable to answer or unclear, incorrect answers for 50% of questions	Rambling when answering, answered 75%	Clear, direct answer to all questions, and answered 100%	5
9. Content	Accuracy of information	Information was general; lack of peer-review support; did not address topic	Information had only < 3 professional and 3 peer-review references; presented 50% topic	Information had > 3 professional and >3 peer-review references; presented topic	40

Writing Assignment Rubric

Criteria	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions: <i>(For reviews and research)</i> <i>Introduction</i> <i>Methods</i> <i>Results</i> <i>Discussion</i> <i>Application</i> (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points & sub-points with a significant amount of detail & clearly delineated.	The material is organized and covers 70-90% of a key point(s). 1-2 elements do not relate to topic. 4-6 errors	The material covers 50-69% of a key points, minimal details, some points are unclear/incorrect. 7-9 errors	The material is missing many of a key points, thoughts are scattered, and incorrect details. >10 errors
Professional writing (35 points)	There are less than 3 errors (See guidelines Below)	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

Professional writing: Proper word selection, spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, sentence & paragraph flow, sentence & paragraph transition, Times New Roman, 12 font, and double spaced. Spelling.

HES 3013 Coaching Power, Speed, and Agility (3 cr)

**Arkansas Tech University
Department of Health and Physical Education**

Instructor

Phone:

E-mail:

Office Hours:

COURSE DESCRIPTION

This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. plyometrics, sprints, 5-10-5, etc.) that can be integrated into a strength and conditioning programs for the improvement in athletic performance.

Prerequisite: HES 1003 Intro Exercise Programming

Course Objectives:

- 1) Become familiar with various types of training principles, methods and exercise instruction to improve an individuals' muscular power performance.
- 2) Learn exercise/drill technique for improvement of muscular power, speed, agility, and change of direction.
- 3) Describe proper/safe exercise technique, identify/predict common mistakes compromising exercise safety, and establish a safe training environment.
- 4) Describe, perform, and coach/instruct the proper methods for engaging safely in plyometrics, shock exercises, sprints, agility, and change of direction.
- 5) Learn the research related to muscular development specific to power, speed, agility, and change of direction training.
- 6) Develop an understanding of the competencies and proficiencies for personal training, and coaching.

Required Books:

- **Developing Agility and Quickness-2nd Edition (2019) NSCA -National Strength & Conditioning Association, Jay Dawes, Ed. Human Kinetics. Champaign, IL. ISBN: 9781492569510**
- **Developing Power (2017) NSCA -National Strength & Conditioning Association, Mike McGuigan, Ed. Human Kinetics. Champaign, IL. ISBN: 9780736095266**

COURSE PROCEDURES AND EXPECTATIONS

- 1) Professional job expectations include the fact that you will arrive to work "on time." This course should be treated the same, as it is a direct link to your future professional success. Participation points will be deducted for each late arrival (for class lectures and labs).
- 2) I expect you to work hard every day and I expect you to respect and help each other during every class.

- 3) Athletic apparel should be worn during gymnasium, weight-room and lab sessions. This means athletic shoes (e.g. cross-trainers), t-shirts, and shorts or athletic pants. Failure to arrive dressed for and participate in activities will result in a **5-point deduction**.
- 4) You will need access to a computer, the web, and a word processing program for course assignments.
- 5) **ALL WRITING ASSIGNMENTS:** For credit, assignments must be typed, Times New Roman font, double-spaced, 12-point font size, and in APA format as set by the university. In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. **NO LATE ASSIGNMENTS WILL BE ACCEPTED***. Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date and time) will only be accepted under unusual circumstances** and if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a "0" grade for the assignment.
- 6) **Assignments must reflect original work. Although problem-solving in groups is recommended, students may not turn in assignments that are identical to one another. Assignments turned in by students that have large volumes of information that are identical to each other constitutes a violation of the Student Code, and will receive no credit. (See PLAGIARISM Section)**
- 7) Students will not be allowed to take the course if the required prerequisites have not been completed.
- 8) Students are responsible for knowing the registration, drop, withdrawal, and final exam dates for the semester.

*Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies. Assignments are due at the **beginning** of the class and will not be accepted as email attachments unless otherwise approved in advance.

**Examples of unusual circumstances include a death in the immediate family, illness that requires medical treatment (documentation will be requested) or an emergency that your attention is required. Computer and/or printer error on the day an assignment is due is NOT considered an unusual circumstance. University-sponsored trips and/or functions are considered excused absences.

STUDENT RESPONSIBILITIES

- 1) Respect for the class members and the professor. **All electronic communications devices including cell phones will be placed in a designated area or will be turned off during class and placed in your bag (See CELL PHONE / I-PHONE POLICY).** Students who are texting, playing games, sleeping or being disruptive distract those who are trying to listen and participate, will be dismissed from the course and counted as unexcused absence. If you are tired or feel the need to use your phone leave the classroom and return when you are finished. It will be your responsibility to ask your classmates to assist you with the material missed.
- 2) During any activity portion of the course, students are expected to use respectful language and support their classmates regardless of size, shape or abilities.
- 3) Dress appropriately for the practical portion of class. For your safety and respect for others, please wear modest, comfortable clothing. Shoes, preferably tennis shoes, must be worn at all times. Professional attire is mandatory when working with clients and

examples of professional attire is warm-up pants, clean shorts, and collared shirts. If profane or clothing that is not preapproved, then the student will lose a full letter grade for the hands-on portion of the course.

- 4) None of the information provided in lecture or discussion is meant to be offensive or discriminatory. Some issues may be sensitive for you personally, but the discussion is not intended to single out anyone. *** If you have any condition that requires special accommodations in testing or class structure, please advise the instructor at the beginning of the semester so that appropriate action can be taken. ***

ATTENDANCE POLICY

- 1) Class Attendance and Participation. **Attendance is required (See ATTENDANCE POLICY)**, and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) **All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.**
- 4) **More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!**

CELL PHONE / I-PHONE POLICY

- 1) **Students must turn off or silence cell phones, i-phone, and pagers while in class and will place them in a designated area in the classroom. If you are seen using these devices you will be asked to leave the classroom and will be counted as an unexcused absence. Computer laptops and tablets may be used for note taking only but if used for e-mailing or purposes other than the current class you will be asked to leave the classroom and will be counted as an unexcused absence.**

PLAGIARISM

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. ***Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.***

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.

- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

Title IX of the Education Amendments of 1972 prohibits sex discrimination in educational programs and activities.

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

- 20 U.S.C. § 1681 & C.F.R. Part 106

Sexual misconduct constitutes sexual discrimination and is prohibited by Title IX.

Sexual misconduct is any sexual act which violates the criminal laws of the State of Arkansas or laws of the United States including but not limited to sexual assault (non-consensual sexual contact or intercourse), domestic violence, dating violence, stalking, and sexual exploitation. The Title IX Coordinator oversees the university's compliance with Title IX of the Education Amendments of 1972. The Title IX Coordinator works with university administration, departments, students, faculty, staff, campus police and other support services to ensure that university policies and programs foster a campus community free of illegal gender discrimination and sexual violence.

Amy N. Pennington
Associate Vice President/Dean of Students and Title IX Coordinator
233 Doc Bryan Student Services Center
1605 Coliseum Drive
Russellville, AR 72801
(479) 968-0407
apennington@atu.edu

TRIO – STUDENT SUPPORT SERVICES

“Student Support Services (SSS) is all about student achievement and success. Our goal is to help you succeed at Arkansas Tech University, help you attain graduation with a bachelor's degree, and gain the necessary skills to either enter the work force or enter graduate or professional school.”

Student Support Services
Brown Hall
105 West O Street, Suite 345
Russellville, AR 72801
Phone: (479) 880-4172
Fax: (479) 880-4239
trio.sss@atu.edu

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE INFORMATION

Check your email and Blackboard™ daily and weekly for announcements, assignments and additional information.

Final grade will be cumulative on all components of the class.

Please note that I do not always post quizzes, in-class assignments or attendance.

Course Outline

- I. Basic Planning, Programming, and Application
 - A. General Population versus Athletic Performance
 - B. Power, Speed, Agility, Change of Direction
 - C. Youth (Under 13 years)
 - D. Pre-adolescence and Adolescence
 - E. Adult 18+ years old
 - F. Senior Population >60 years old
- II. Planning and Programming
 - A. Planning long-term progressions and Testing
 - B. Programming for week and session
 - C. Developing a school curriculum
 - D. Developing a training program
 - E. Developing a youth S&C program
- III. Movement Patterns
 - A. Hops
 - B. Jumps
 - C. Leaps
 - D. Bounding
 - E. Skipping
- IV. Lower Body Plyometrics
 - A. Categories (Squat (Static) Jump; Countermovement; Barrier Jumps; Depth Jumps)
 - 1. Low Intensity
 - 2. Medium Intensity
 - 3. High Intensity
 - 4. Shock
- V. Upper Body Plyometrics (Medicine Ball Throws; Puts; Ballistic Push-ups)
 - A. Categories
 - 1. Low Intensity
 - 2. Medium Intensity
 - 3. High Intensity
 - 4. Shock
- VI. Speed
 - A. Start Positions: 2-point, 3-point, 4-point, In-motion
 - B. Sprint Technique Drills
 - C. Peak Velocity and Acceleration

- D. Deceleration, Agility, Change of Direction
- VII. Present Programs
- VIII. Personal Training/Coaching/Teaching Practical
- IX. Exam Final (Finals Week)

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Lower Body Plyometric Training Program	= 100
Upper Body Plyometric Training Program	= 100
Linear Speed Training Program	= 100
Agility, Change of Direction Training Program	= 100
Final Power and SAQ Program for a Team or Training Group Presentation	= 100
Personal Training/Coaching/Teaching Practical	= 100
Final Exam	= 100
Course Total Points	= 700

ARTICLES:

You will be tasked to acquire **PEER REVIEWED** articles outside of the ones provided to you on Blackboard™ for the completion of assignments and lab write-ups. **Use of non-peer reviewed articles (web articles from www.livestrong.com, www.bodybuilding.com, www.elitefts.com, www.crossfit.com, www.ymca.net, etc. are not acceptable sources for articles use as these are not peer-reviewed articles)** will result in a 5 point deduction for EACH OCCURRENCE. It would be advisable to ask the instructor if your article is peer-reviewed and the correct referencing format is used prior to turning in your completed assignment. Take the time to read the article and if you are unsure or require clarity of a statement please do not hesitate to ask the instructor.

Examples:

1. Brown JR, Alsarraf BJ, Waller M, Eisenman P, and Hicks-Little CA. Rotational Angles and Velocities During Down the Line and Diagonal Across Court Volleyball Spikes. International J Kines Sports Sci. 2(2): 1-8, 2014.
2. Siff MC. Biomechanical Foundations of Strength and Power Training. In, Biomechanics in Sport: Performance enhancement and injury prevention. Ed. Zatsiorsky VM. Oxford, England: Blackwell Science Ltd; Pp. 103-142, 2000.
3. Waller M, Townsend R, and Gattone M. Application of the power snatch for athletic conditioning. Strength Cond J. 29(3):10-20, 2007.

Program Assignments:

The purpose of this assignment is to improve your knowledge on the development of training programs to obtain a specific physical quality. The weight training programs will be a 2-week example (microcycle) of exercises, volume, intensity, exercise order and rest (there other variables) specific to a training goal. The program will have 3 to 5 training days per week that will be 45 to 90-minutes in length that will include a warm-up, main body, and cool-down. The programs will be developed for each of the following four goals over the course of the semester:

1. Lower Body Plyometric

2. Upper Body Plyometric
3. Linear Speed
4. Agility, Change of Direction

Write a minimum 2 to 4-page paper on how the exercises will achieve the goal of the program. The paper will explain the program, what will be achieved, and how this will be progressed and include 5 peer-reviewed sources required.

Program Presentation:

Develop a 4-week strength and conditioning program for a specific population (e.g. youth, senior), along with a specific goal (e.g. lacrosse, hiking ability). Students will have an option list to select the population and goal they will develop a program. The program will be the last 4 weeks of a general preparation phase and will address the following questions. You will need to provide a 1-page summation paper of your program that will include a reference section that has 1-2 textbook(s) and 4-5 peer-reviewed articles that is in correct format. The presentation will be 5-6 minutes in length and does not include question and answer time.

1. Does the program effectively address the goal?
2. Why are the exercises, volume, intensity, and recovery selected?
3. What tests and evaluations are used and why?
4. What references support your S&C plan? (Citations needed) at end of presentation.
5. What type of stretching and warm-up will be used and why?
6. What physiological adaptations do you expect to occur?

Personal Training/Coaching/Teaching Practical Exercise Sample List to be used.

1. Hops → Horizontal Hops → Repeat Hops → Barrier Hops
2. Box Jump → Max Box Jumps → Multiple Box Jumps
3. Squat Jump → Countermovement Jump → Repeat Jumps (Vertical & Horizontal)
4. Barrier Jump → Repeat Barrier Jumps
5. Split Jump → Cycle Split Jumps → Pike Jumps
6. Depth Jump → Multiple Depth Jumps → Depth Jumps w/addition
7. Bounds → Zig-Zag Bound (single arm)
8. Lateral Leaps → Repeat Lateral Leaps (Ice Skaters)
9. A-Skips → B-Skips → High Knee Skips
10. Sprint Starts: 2-point, 3-point, 4-point, In-motion
11. Wall Foot Clawing Drill → Falling Start → Sprint Start Release
12. Sprint Initial Acceleration → In motion Acceleration → Peak Sprint
13. Lateral Movement Drills → 5-10-5 → L & T Agility Drills
14. Medicine Ball: Chop → Diagonal Chop → Slams
15. Medicine Ball: Sit-up → Sit-up w/Throw → Russian Twist
16. Medicine Ball: Overhead Throw → Over Shoulder Throw → Scoop Throw
17. Medicine Ball: Chest Throw → with Rotation → Drop w/ Supine Chest Throw
18. Medicine Ball: Rotation Throw → Rotation Passes – Backward Throw
19. Countermovement Power Push-Up → Drop Push-up → Depth Push-up
20. Shuffle Push-up → Clap Push-up → Power Push-Up to Box

Coaching Rubric

Task	Criteria	Low Standards	Moderate Standards	High standards	Pts
1. Attire	Dresses for occasion	Clothing is stained or torn, and inappropriate for activity/class	Clothing and shoes have some dirt but overall clean	Clean shorts, pants, t-shirt or collared short-sleeves, Clean athletic shoes	5
2. Mannerisms	Volume, speed, & clarity, poise	Reads presentation from notes or slides, difficult to hear, multiple unrelated gestures	Speaks clearly at adequate volume, rushes, pauses or makes unrelated gestures (i.e. um, uh), avoids eye contact	Clear, relaxed speech throughout, uses speech to effectively emphasize main points, few nervous gestures, use of eye contact.	5
3. Use of technology and Additional materials	PowerPoint, video, images, audio &/or hand-outs	Disorganized, repetitive, includes every word of presentation in slides. None observed	Slides are concise, organized, minimal repetition. 2-4 observed (may be included in ppt)	Additional details in slide background, transitions, etc. 5 or more observed (may be included in ppt)	15
4. Vocabulary	Correct terminology	Frequent use of slang/text expressions, no explanation of specific terms	Occasional use of slang, explains program specific terms	Professional vocabulary & terminology used throughout	10
5. Writing errors in slides or handouts	Spelling, grammar, punctuation, word use	> 6 errors noticed	4-6 errors noticed	1-3 errors noticed	10
6. Timeframe	Length of class time	Unsuccessfully utilized entire class time ($\leq 75\%$ of class time)	Completed $>75\%$ but $< 90\%$ of class time	Effectively used class time and disseminated information	10
7. Answered questions	Asks for questions, answers questions	Unable to answer or unclear, incorrect answers for 50% of questions	Rambling when answering, answered 75%	Clear, direct answer to all questions, and answered 100%	5
8. Content	Accuracy of information	Information was general; lack of peer-review support; did not address topic	Information had only < 3 professional and 3 peer-review references; presented 50% topic	Information had > 3 professional and >3 peer-review references; presented topic	40

Labs and writing assignments will be evaluated based on the following criteria.

Criteria	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points expected with a significant amount of detail. Key points and sub-points clearly delineated	The material is organized and covers 70-90% of key points expected with some detail. One or two elements do not seem to be clearly related to topic. 4-6 errors	The material covers 50-69% of key points expected. Minimal detail provided; some points seem vague or unclear or incorrect. 7-9 errors	The material is missing many of the key points expected. Thoughts are scattered, with minimal or incorrect detail. >10 errors
Professional writing (35 points)	There are less than 3 errors in the following areas: Spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, flow and transition.	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

HES 4012 Health and Exercise Science Internship

Instructor Information:

Name: Dr. Rockie Pederson
Office Hours: MWF 10 am – 12 pm; TR 1-3 pm
Office: Hull 109
Phone: 479-968-0323
E-mail: rpederson@atu.edu
Fax: 479-890-3084

Academic Credit:

Twelve credit hours

Prerequisites:

Senior standing, a 2.00 cumulative grade point average, completion of all WS, HLED, and PE courses with a grade of C or higher in all content area courses and approval of the Head of the Health and Physical Education Department.

Student professional liability insurance must be purchased by the student prior to site placement. Additional information will be provided during the classroom sessions.

Catalog Description:

Intensive on-campus classroom exploration of the principles, procedures, and methods used in various areas of concern will be covered prior to a minimum of fourteen weeks of supervised full-time internship at a designated site.

Text Required:

None.

Bibliography:

American College of Sports Medicine. (2014). *ACSM's Guidelines for Exercise Testing and Prescription* (9th Ed.). Philadelphia: Lippincott, Williams & Wilkins.

Justification/Rationale for Course:

The Society of Health and Physical Education (SHAPE) recommends a directed working experience. This course is designed to satisfy the recommendation. Students are assigned to work sites in the primary service area of Arkansas Tech University. Sites are selected based on having high professional recognition in their communities, as well as other requirements.

Student assignment is made by the placement director for WS 4012. Student preferences are considered; however, final determination is made by the placement director. During the fall and spring semesters, the internship assignment is for a period of at least fourteen consecutive weeks of full-day experiences. During the summer, both summer terms (for a total of ten consecutive weeks) are required. Thirty-five hours per week is the requirement for the intern. During this period, on-site staff observes the student. In addition, the students are required to provide weekly reports of their experiences to the course instructor.

Competencies:

The major purposes of an internship are to provide:

1. direct opportunities of a varied nature which will permit firsthand experiences with subject;
2. work situations involving problems in which the intern will have an opportunity to analyze and solve the problems
3. opportunities for the intern to put into practice many of the theories studied in various professional preparation courses; and
4. situations in which skills and competencies are developed.

The objectives of the internship in wellness science, in particular, are to provide experiences:

1. in which the intern will **work with subjects in many different situations;**
2. which will **develop the intern's ability to teach skills and knowledges** in a variety of situations
3. which will **lead the intern to recognize, adjust to, and make provisions for individual differences in the skills, needs, and abilities of subjects;**
4. which the intern learns to **develop the ability to handle daily routines;**
5. which the intern learns to **evaluate subjects in patterns of physical fitness, skills and knowledges;**
6. which will enable the intern to **view the establishment as a whole** and to **learn his/her responsibilities in carrying out administrative policies and in accomplishing the general objectives of the total program;**
7. which will give the intern an opportunity **to work with subjects of all ages;**
8. which will **stimulate the intern's desire for continuous professional growth;**
9. that will enable the intern to **develop into a well-balanced individual**, a person possessing a pleasing personality and desirable personal characteristics;
10. which will help the intern **discover, use and apprise group processes that promote effective human relations;**
11. which will **provide the intern with opportunities for self-analysis and for the development of self-confidence;**
12. in which the intern learns to **select, use, and interpret objective data and records so as to understand and guide the subject's growth;**
13. which will enable the intern to **become familiar with professional literature, textbooks, reference materials, community resources, and available equipment**, particularly in the area of concern.

Description of How the Course Meets the General Education Objectives:

This course addresses:

1. "understanding wellness concepts," as students must incorporate their knowledge of this area into exercise programming at their placement site.
2. "communicate effectively" goal, through the student's preparation of an exit portfolio.
3. "think critically" goal, as students prepare various components of the exit portfolio and record daily reflections about their internship experiences in a journal.

Educational Opportunities:

1. Lecture and discussions
2. Projects: portfolio development including a cover letter, resume, placement site report, weekly reflective journal, intern locator forms, site project proposal, evidence of site project, client profile/program, program assessment process, and placement site critique
3. Skill application: CPR re-certification

Assessment Tools:

1. **Weekly Reflective Journals.** A weekly reflective journal will be developed and kept up-to-date. Entries should be extensive enough to clearly describe how your time was spent; what tasks you accomplished, and other items you feel are important. Reflective statements should be included (not just what you did but epiphanies that you have had). This log will be included in your portfolio.
2. **Weekly Locator Forms.** A completed locator form must be submitted via Blackboard by 11:59 PM each Sunday with current contact information and planned schedule for the upcoming week. You should meet with your site supervisor each Friday, and plan your schedule for the upcoming week. The locator form must be submitted to Blackboard.
3. **Site Project.** The project is a way of repaying the site for giving you an opportunity to work with them. This project needs to be something that is tangible and of value to the internship site, such as a brochure, display, or video. The project must be approved by the site supervisor and the Tech supervisor before you begin work on it
4. **Client Profile and Designed Program.** Identify one or more individuals on which to base a client profile and develop an program just as you have done in your coursework.
5. **Program Assessment Protocol.** Provide a detailed overview of the answer to "How are clients initially evaluated upon referral to ZXR Center?" Include the timeline of the process and the details of each step of the process.
6. **Placement Site Evaluation.** Critically analyze the site at which you have been placed during your internship. A narrative format is fine for this assignment. Specific components will be presented for inclusion in the narrative.
7. **Intern Self Evaluation.** Using the designated form, you will evaluate your performance at midterm and at the end of the internship. The purpose of the self-evaluation is the development and assessment of personal professional behavior.
8. **Intern Performance Evaluation.** You will be evaluated/rated on your overall performance by your assigned site supervisor at the end of the internship.
9. **CPR/AED Certification.** This will follow the American Red Cross current guidelines and performance standards. The current fee for the certification card is \$19. You may pay this fee in Student Accounts, and bring your receipt to class along with a face shield which may be purchased in the ATU Bookstore.

10. **Professional Portfolio.** The purpose of the Professional Portfolio is to document your growth through your internship, and reflect your skills and future focus. As with any portfolio it should be well organized and contain more than the minimal requirements. All inclusions should be word processed or printed. Section dividers with labels and title sheets are helpful.
11. **Nursing Liability Insurance.** This coverage must be purchased for the semester. The current fee for this insurance is \$16.00. You pay this fee in Student Accounts, and bring your receipt to class the first day so that your name may be added to the policy. No points are assigned. This is an internship requirement.
12. **Summary Oral Presentation.** The Summary Presentation is an opportunity to demonstrate what you have accomplished over the course of your internship; to share and reflect on your experiences; to develop your public speaking skills, and help leave a good final impression. Length is 10 -12 minutes.
13. **Required Reading.** A book relevant to Wellness/Fitness selected by the Instructor will be read by the student during the internship. Over the course of the semester, specific questions regarding the book will be posted in a Blackboard discussion board.

ASSESSMENT

Component	Points Possible	Points Made
Reflective Journals	120	
• Weekly Journals (5 X 14)	70	
• Summary Journal	50	
Locator Forms	70	
• Weekly Locator Form (5 X 14)	70	
Site Project	100	
• Proposal	50	
• Completed Project	50	
Client Program & Program	100	
• Profile	50	
• Program	50	
Program Assessment Protocol	70	
• Timeline	35	
• Details	35	
Placement Site Evaluation	50	
Intern Self-Evaluation	75	
• Mid-Term	30	
• Final	45	
Intern Performance Evaluation	85	
Professional Portfolio	130	
Summary Oral Presentation	100	
Required Reading	100	
Total Points Possible	1000	

Grading:

The final grade will be computed on the following points earned scale:

900 – 1000 = A
 800 – 899 = B
 700 – 799 = C

ATTENDANCE POLICY

Regular and consistent attendance during the internship is recommended; interns are expected to be on site daily to fulfill the requirements of the internship (35 hours per week) as well as their assigned responsibilities. Interns are to notify both the internship site supervisor and the Tech supervisor of an absence prior to the absent.

- ☆ Any student that accumulates three (3) absences will receive a grade of “D” and will be subject to dismissal from the course due to excessive absences.

**CELL PHONE POLICY**

As a member of the learning community, each student has a responsibility to other students who are members of the community. When cell phones or pagers ring and students respond in class or leave class to respond, it disrupts the class. Therefore, the use by students of cell phones or similar communication devices during class is prohibited. All such devices must be put in a silent (vibrate) mode and not be taken out during class. Exceptions to this policy may be granted at the discretion of the instructor.

To facilitate professional behavior during class, each time a cell phone is visible (whether in use or not) five (5) points will be deducted from the total points accumulated of each student.

During the internship, the cell phone policy of the internship site is to be adhered to.

POLICY ON ACADEMIC DISHONESTY AND ACADEMIC MISCONDUCT

Academic dishonesty is defined as: Cheating on an examination, quiz, or homework assignment involves any of several categories of dishonest activity. Examples of this are: a) copying from the examination or quiz of another student, b) bringing into the classroom notes, messages, or crib sheets in any format which gives the student extra help on the exam or quiz, and which were not approved by the instructor of the class; c) obtaining advance copies of exams or quizzes by any means; d) hiring a substitute to take an exam or bribing any other individual to obtain exam or quiz questions; e) buying term papers from the Internet or any other source, f) using the same paper to fulfill requirements in several classes without the consent of the professors teaching those classes, g) submitting another person's lesson plans and/or assignments, and h) providing another student with answers. Plagiarism is also defined as academic dishonesty.

Academic misconduct concerns the student's classroom behavior. This includes the manner of interacting with the professor and other students in the class. For example, students disrupt the learning environment in a classroom through inappropriate behavior, such as, talking to students, unnecessary interruptions, attempting to monopolize the professor's attention, or being chronically late to class. Misconduct also covers verbal or nonverbal harassment and/or threats in relation to classes. Student behavior should not infringe on the rights of other students or faculty during a class.

Academic dishonesty and academic misconduct will be dealt with according to the Faculty Handbook.

DISCRIMINATION STATEMENT

Arkansas Tech University does not discriminate on the basis of color, sex, sexual orientation, gender identity, race, age, national origin, religion, veteran status, genetic information, or disability in any of our practices, policies, or procedures. If you have experienced any form of discrimination or harassment, including sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the institution. If you report such an incident of misconduct to a faculty or staff member, they are required by law to notify Arkansas Tech University's Title IX Coordinator and share the basic fact of your experience. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus. For more information please visit: <http://www.atu.edu/titleix/index.php>.

Arkansas Tech University adheres to the requirements of the Americans with Disabilities Act in order to prevent barriers to academic accessibility. If you need an accommodation due to a disability, please contact the ATU Office of Disability Services, located in Doc Bryan Student Center, Suite 171, or visit <http://www.atu.edu/disabilities/index.php>.

STUDENT NEEDS STATEMENT

Any student who faces challenges securing food or housing and believes this may affect his/her performance in the course is urged to notify the instructor, if s/he is comfortable in doing so. Community resources are available for students and can be found at the following webpage:

<https://www.atu.edu/localresources/>. If a student finds s/he needs more support, s/he is encouraged to contact the Office of the Vice President for Student Services (479 968 0238).

DISCLAIMER

If modifications to the syllabus are made, an announcement will be made in class and an addendum will be provided to the students.

Email and in-class announcements will be the primary form of communication I will use to update you of class requirements and changes. Attendance is vital. E-mail is also a common form of communication. At times, I may send notification emails to students; therefore, it is the student's responsibility to check your OneTech e-mail daily for course information, announcements, or changes.

COVID-19 Considerations

In order to help keep our ATU community safe, healthy, and to prevent the spread of COVID-19, students must follow several steps:

1. Masks must be worn by all students in public spaces, including classrooms and laboratories. Any student showing up for class without a mask will be given the opportunity to retrieve one. Entry into classrooms and laboratories without a mask will be prohibited. Please refer to the guidance from CDC as to the proper use of cloth masks (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wear-cloth-face-coverings.html>). Note that CDC does not recommend the use of a face shield in the place of a cloth mask (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html>).
2. All students are required to participate in a daily health self-screen (<https://www.atu.edu/pandemicrecovery/student-health-screening.php>). For students commuting to campus, please complete before coming to campus. For residential students, please complete each day before leaving your residence hall. If you do not own a thermometer, please have your temperature taken at one of the temperature testing sites listed in the student health screening document and repeated below:
 - Department of Public Safety available beginning July 6th (716 N El Paso Avenue); Monday-Friday; 8am-5pm
 - Health and Wellness Center available beginning August 3rd (outdoor tent station by north entrance of Doc Bryan Student Services Center); Monday-Friday; 8am-5pm
 - University Commons Clubhouse available beginning August 10th; Monday-Friday; 8am-10pm and Sunday; 5pm-10pm
 - All students must maintain at least 6 feet of distance from every person present in all instructional spaces used in this course (classrooms, laboratories, etc.).
3. Any student who tests positive for COVID-19 is asked to self-report to the ATU Health and Wellness Center by calling (479) 968-0329 or sending e-mail to hwc@atu.edu. Doing so will allow the university to communicate directly with others who might have been exposed to the virus and take any appropriate cleaning and sanitizing measures.

Students are expected to abide by the above steps per the Student Handbook section on Classroom Behavior.

**HES 4043 Exercise Physiology Lab
Arkansas Tech University
Department of Health and Physical Education**

Instructor

Phone:

E-mail:

Office Hours:

COURSE DESCRIPTION

This course will involve the study, calculation, and understanding of how exercise physiology is tested, assessed, and applies to training, athletics, and physical activity. Laboratory experiences will apply to the concepts bioenergetics, fatigue, oxygen consumption, muscular performance, and cardiovascular functions.

Required Book:

Laboratory Manual for Exercise Physiology 2nd Ed. (2019) G. Gregory Haff Charles Dumke. Human Kinetics. Champaign, IL. ISBN: 9781492536949

Course Objectives:

1. Learn to analyze and interpret physiological systems' responses to physical activity, exercise and sport.
2. Learn to analyze and interpret cardiovascular endurance, muscular strength & endurance, flexibility, body composition.
3. Learn when to select and apply lab and field tests.
4. Learn to analyze and interpret laboratory and field tests of athletes and other active individuals, and how this information can be used in training plans and programs.

Course Procedures and Expectations

- 1) Professional job expectations include the fact that you will arrive to work "on time." This course should be treated the same, as it is a direct link to your future professional success. Participation points will be deducted for each late arrival (for class lectures and labs).
- 2) I expect you to work hard every day and I expect you to respect and help each other during every class.
- 3) Athletic apparel should be worn during gymnasium, weight-room and lab sessions. This means athletic shoes (e.g. cross-trainers), t-shirts, and shorts or athletic pants. Failure to arrive dressed for and participate in activities will result in a **5-point deduction**.
- 4) You will need access to a computer, the web, and a word processing program for course assignments.
- 5) **ALL WRITING ASSIGNMENTS:** For credit, assignments must be typed, Times New Roman font, double-spaced, 12-point font size, and in APA format as set by the university. In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. **NO LATE ASSIGNMENTS WILL BE ACCEPTED***. Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date and time) will only be accepted under unusual circumstances** and

if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a “0” grade for the assignment.

- 6) **Assignments must reflect original work. Although problem-solving in groups is recommended, students may not turn in assignments that are identical to one another. Assignments turned in by students that have large volumes of information that are identical to each other constitutes a violation of the Student Code, and will receive no credit. (See PLAGIARISM Section)**
- 7) Students will not be allowed to take the course if the required prerequisites have not been completed.
- 8) Students are responsible for knowing the registration, drop, withdrawal, and final exam dates for the semester.

*Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies. Assignments are due at the **beginning** of the class and will not be accepted as email attachments unless otherwise approved in advance.

**Examples of unusual circumstances include a death in the immediate family, illness that requires medical treatment (documentation will be requested) or an emergency that your attention is required. Computer and/or printer error on the day an assignment is due is NOT considered an unusual circumstance. University-sponsored trips and/or functions are considered excused absences.

Student Responsibilities

- 1) Respect for the class members and the professor. **All electronic communications devices including cell phones will be placed in a designated area or will be turned off during class and placed in your bag (See Cell Phone / i-Phone Policy).** Students who are texting, playing games, sleeping or being disruptive distract those who are trying to listen and participate, will be dismissed from the course and counted as unexcused absence. If you are tired or feel the need to use your phone leave the classroom and return when you are finished. It will be your responsibility to ask your classmates to assist you with the material missed.
- 2) During any activity portion of the course, students are expected to use respectful language and support their classmates regardless of size, shape or abilities.
- 3) Dress appropriately for the practical portion of class. For your safety and respect for others, please wear modest, comfortable clothing. Shoes, preferably tennis shoes, must be worn at all times. Professional attire is mandatory when working with clients and examples of professional attire is warm-up pants, clean shorts, and collared shirts. If profane or clothing that is not preapproved, then the student will lose a full letter grade for the hands-on portion of the course.
- 4) None of the information provided in lecture or discussion is meant to be offensive or discriminatory. Some issues may be sensitive for you personally, but the discussion is not intended to single out anyone. *** If you have any condition that requires special accommodations in testing or class structure, please advise the instructor at the beginning of the semester so that appropriate action can be taken. ***

Attendance Policy

- 1) Class Attendance and Participation. **Attendance is required (See ATTENDANCE POLICY)**, and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) **All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.**
- 4) **More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!**

Cell Phone / i-Phone Policy

- 1) **Students must turn off or silence cell phones, i-phone, and pagers while in class and will place them in a designated area in the classroom. If you are seen using these devices you will be asked to leave the classroom and will be counted as an unexcused absence. Computer laptops and tablets may be used for note taking only but if used for e-mailing or purposes other than the current class you will be asked to leave the classroom and will be counted as an unexcused absence.**

Plagiarism

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. ***Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.***

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.
- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

Title IX of the Education Amendments of 1972 prohibits sex discrimination in educational programs and activities.

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

- 20 U.S.C. § 1681 & C.F.R. Part 106

Sexual misconduct constitutes sexual discrimination and is prohibited by Title IX.

Sexual misconduct is any sexual act which violates the criminal laws of the State of Arkansas or laws of the United States including but not limited to sexual assault (non-consensual sexual contact or intercourse), domestic violence, dating violence, stalking, and sexual exploitation. The Title IX Coordinator oversees the university's compliance with Title IX of the Education Amendments of 1972. The Title IX Coordinator works with university administration, departments, students, faculty, staff, campus police and other support services to ensure that university policies and programs foster a campus community free of illegal gender discrimination and sexual violence.

Amy N. Pennington

Associate Vice President/Dean of Students and Title IX Coordinator

233 Doc Bryan Student Services Center

1605 Coliseum Drive

Russellville, AR 72801

(479) 968-0407

apennington@atu.edu

TRIO – STUDENT SUPPORT SERVICES

“Student Support Services (SSS) is all about student achievement and success. Our goal is to help you succeed at Arkansas Tech University, help you attain graduation with a bachelor's degree, and gain the necessary skills to either enter the work force or enter graduate or professional school.”

Student Support Services

Brown Hall

105 West O Street, Suite 345

Russellville, AR 72801

Phone: (479) 880-4172

Fax: (479) 880-4239

trio.sss@atu.edu

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE INFORMATION

Check your email and Blackboard™ daily and weekly for announcements, assignments and additional information.

Final grade will be cumulative on all components of the class.

Please note that I do not always post quizzes, in-class assignments or attendance.

Course Outline

- I. Testing and Assessing Variables
 - A. Measurement Terminology
 - B. Interpretation and Reporting of Data
- II. Initial Physical Screening
 - A. Informed Consents and PAR-Q
 - B. Health History Questionnaires
 - C. Disease Risk Stratification
- III. Flexibility
 - A. Direct and Indirect ROM Assessment
 - B. Laboratory Tests
- IV. Body Composition
 - A. BMI and Circumference Measurements
 - B. Measuring Skinfold Thickness
 - C. Hydrodensitometry
- V. Cardiovascular System
 - A. Measurement of Heart Rate
 - B. Blood Pressure Measurements and Responses to Exercise
 - C. Electrocardiograph Measurements
- VI. Pulmonary System
 - A. Pulmonary Function Testing
 - B. Lung Volumes, Capacities, and Ventilatory Limitations
- VII. Aerobic Capacity, Power, and Functions
 - A. Resting Metabolic Rate
 - B. Oxygen Uptake During Exercise and Recovery
 - C. Submaximal Exercise Testing
 - D. Maximal Oxygen Consumption
 - 1. Graded Treadmill $\dot{V}O_{2\max}$ Test
 - 2. Cycle Ergometer $\dot{V}O_{2\max}$ Test
 - E. Laboratory Tests
- VIII. Anaerobic Capacity, Power, and Functions
 - A. Blood Lactate Threshold Assessment
 - B. Bosco Test for Estimating Power Endurance
 - C. Yo-Yo Intermittent Recovery Test
 - D. Wingate Anaerobic Test for Determining Anaerobic Cycling Power
- IX. Muscular Performance and Fitness
 - A. Léger 20 m Shuttle Run Test
 - B. Maximal Upper-Body Strength
 - C. Maximal Lower-Body Strength
 - D. Maximal Handgrip Strength

- E. Upper-Body Muscular Endurance
- F. Sprinting Performance
- G. Jumping Performance
 - 1. Eccentric Utilization Ratio
- X. Final Lab Practical Exam

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Initial Physical Screen Lab	= 100
Flexibility Lab	= 100
Body Composition Lab	= 100
Cardiovascular, Blood Pressure, ECG Lab	= 100
Pulmonary Function Testing Lab	= 100
Submaximal Exercise Oxygen Consumption Testing Lab	= 100
Maximal Exercise Oxygen Consumption Testing Lab	= 100
Anaerobic Capacity Lab	= 100
Anaerobic Power Lab	= 100
Muscular Strength Lab	= 100
Muscular Power Lab	= 100
Final Lab Practical Exam	= 100
Course Total Points	= 1200

ARTICLES:

You will be tasked to acquire **PEER REVIEWED** articles outside of the ones provided to you on Blackboard™ for the completion of assignments and lab write-ups. **Use of non-peer reviewed articles (web articles from www.livestrong.com, www.bodybuilding.com, www.elitefts.com, www.crossfit.com, www.ymca.net, etc. are not acceptable sources for articles use as these are not peer-reviewed articles)** will result in a 5 point deduction for EACH OCCURRENCE. It would be advisable to ask the instructor if your article is peer-reviewed and the correct referencing format is used prior to turning in your completed assignment. Take the time to read the article and if you are unsure or require clarity of a statement please do not hesitate to ask the instructor.

Example:

1. Brown JR, Alsarraf BJ, Waller M, Eisneman P, and Hicks-Little CA. Rotational Angles and Velocities During Down the Line and Diagonal Across Court Volleyball Spikes. International J Kines Sports Sci. 2(2): 1-8, 2014.
2. Siff MC. Biomechanical Foundations of Strength and Power Training. In, Biomechanics in Sport: Performance enhancement and injury prevention. Ed. Zatisiorsky VM. Oxford, England: Blackwell Science Ltd; Pp. 103-142, 2000.
3. Waller M, Townsend R, and Gattone M. Application of the power snatch for athletic conditioning. Strength Cond J. 29(3):10-20, 2007.

LABS

All Labs maybe done with a partner or individually, and IF done with a partner both names will be on the title page of the lab.

Labs will consist of calculating and assessing the specific variables of the movement that is being analyzed. **Your write up will include an introduction, methods, results, discussion and application sections reporting on the findings of the lab.** This time will be your chance to perform the movement and ask questions of the variables creating motions and what are the motions. The articles listed for this lab will be used in your write-up's discussion section. A write-up of the phases of the exercises, neuromuscular variables, kinematics and kinetics that occur during the execution of the assigned exercise will be included in the write-up.

Lab and Writing Assignment Guidelines and Rubric (LATE PAPERS WILL NOT BE ACCEPTED*)

All papers may have an introduction and methods section but all will have a results, discussion and application section which will address the type of research conducted, statistical analyses performed, and any inferences made. A minimum of **2 peer-reviewed** articles will be acquired by the student in addition to the articles provided (web articles from www.livestrong.com, www.bodybuilding.com, etc. will result in point deductions as these are not peer-reviewed) will be used as references and properly cited and textbooks do not qualify as peer-review. Graphs, figures and tables are encouraged to be used but should add to the message of the review or bring clarity to a point. For credit, assignments will be **a minimum of 5 pages** using Times New Roman type, 12-point font, double spaced, and in Index Medicus format. NOTE: Figures and Tables do not count towards the final page count. ***Start reading and collecting the information early as possible, as the assignment will take time and the chance of preparing a well written review will be difficult to complete in only a week or a few days. **If you need help with scientific writing, please ask.** In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. *Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date) will only be accepted under unusual circumstances* and if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a "0" grade for the assignment. ***Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies.**

Bibliography.

- American College of Sports Medicine. (2017) ACSM's Guidelines for Exercise Testing and Prescription, 10th ed. Wolters Kluwer Health, Inc. ISBN: 9781496339065
- Peter Maud and Carl Foster (2006) Physiological Assessment of Human Fitness, 2nd ed. Human Kinetics. ISBN: 9780736046336
- William D. McArdle, Frank I. Katch , NS Victor L. Katch (2014) Exercise Physiology, 8th ed. Wolters Kluwer Health, Inc. ISBN: 9781451191554
- Scott Powers, Edward Howley and John Quindry. (2021) Exercise Physiology: Theory and Application to Fitness and Performance, 11th ed. McGraw Hill. ISBN10: 1260237761, ISBN13: 9781260237764

Writing Assignment Guidelines (Labs) and Rubric

Criteria	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions: <i>(For reviews and research)</i> Introduction Methods Results Discussion Application (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points & sub-points with a significant amount of detail & clearly delineated.	The material is organized and covers 70-90% of a key point(s). 1-2 elements do not relate to topic. 4-6 errors	The material covers 50-69% of a key points, minimal details, some points are unclear/incorrect. 7-9 errors	The material is missing many of a key points, thoughts are scattered, and incorrect details. >10 errors
Professional writing (35 points)	There are less than 3 errors (See guidelines Below)	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

Professional writing: Proper word selection, spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, sentence & paragraph flow, sentence & paragraph transition, Times New Roman, 12 font, and double spaced. Spelling.

Note: The syllabus is not a binding legal contract. It may be modified by the instructor when the learner is given reasonable notice of the modification, particularly when the modification is done to rectify an error that would disadvantage the learner.

HES 4053 BIOMECHANICS
Arkansas Tech University
Department of Health and Physical Education

Instructor

Phone:

E-mail:

Office Hours:

COURSE DESCRIPTION

This course will involve the study, calculation, and understanding of the biomechanical principles that contribute to human movements, exercise, and athletics. Laboratory experiences of biomechanical principles through kinematic and kinetic analysis will facilitate advancement of the students understanding of human/athletic performance. Prerequisite: PE 4033.

Course Objectives:

- 1) Learn to analyze and interpret how the neuromuscular system functions.
- 2) Learn to analyze and interpret linear and angular kinematics during human movement.
- 3) Learn to analyze and interpret linear and angular kinetics during human movement.
- 4) Develop an understanding and knowledge to quantify the variables of biomechanics in quantitative and qualitative reports.
- 5) Develop an understanding of how to apply the biomechanical concepts to exercise and athletics.

Required Book:

Applied Sport Mechanics 4th Ed. (2019) Brendan Burkett. Human Kinetics. Champaign, IL. ISBN: 9781492558439

COURSE PROCEDURES AND EXPECTATIONS

- 1) Professional job expectations include the fact that you will arrive to work “on time.” This course should be treated the same, as it is a direct link to your future professional success. Participation points will be deducted for each late arrival (for class lectures and labs).
- 2) I expect you to work hard every day and I expect you to respect and help each other during every class.
- 3) Athletic apparel should be worn during gymnasium, weight-room and lab sessions. This means athletic shoes (e.g. cross-trainers), t-shirts, and shorts or athletic pants. Failure to arrive dressed for and participate in activities will result in a **5-point deduction**.
- 4) You will need access to a computer, the web, and a word processing program for course assignments.
- 5) **ALL WRITING ASSIGNMENTS:** For credit, assignments must be typed, Times New Roman font, double-spaced, 12-point font size, and in APA format as set by the university. In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. **NO LATE ASSIGNMENTS WILL BE ACCEPTED***. Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date and time) will only be accepted under unusual circumstances** and

if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a “0” grade for the assignment.

- 6) **Assignments must reflect original work. Although problem-solving in groups is recommended, students may not turn in assignments that are identical to one another. Assignments turned in by students that have large volumes of information that are identical to each other constitutes a violation of the Student Code, and will receive no credit. (See PLAGIARISM Section)**
- 7) Students will not be allowed to take the course if the required prerequisites have not been completed.
- 8) Students are responsible for knowing the registration, drop, withdrawal, and final exam dates for the semester.

*Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies. Assignments are due at the **beginning** of the class and will not be accepted as email attachments unless otherwise approved in advance.

**Examples of unusual circumstances include a death in the immediate family, illness that requires medical treatment (documentation will be requested) or an emergency that your attention is required. Computer and/or printer error on the day an assignment is due is NOT considered an unusual circumstance. University-sponsored trips and/or functions are considered excused absences.

STUDENT RESPONSIBILITIES

- 1) Respect for the class members and the professor. **All electronic communications devices including cell phones will be placed in a designated area or will be turned off during class and placed in your bag (See CELL PHONE / I-PHONE POLICY).** Students who are texting, playing games, sleeping or being disruptive distract those who are trying to listen and participate, will be dismissed from the course and counted as unexcused absence. If you are tired or feel the need to use your phone leave the classroom and return when you are finished. It will be your responsibility to ask your classmates to assist you with the material missed.
- 2) During any activity portion of the course, students are expected to use respectful language and support their classmates regardless of size, shape or abilities.
- 3) Dress appropriately for the practical portion of class. For your safety and respect for others, please wear modest, comfortable clothing. Shoes, preferably tennis shoes, must be worn at all times. Professional attire is mandatory when working with clients and examples of professional attire is warm-up pants, clean shorts, and collared shirts. If profane or clothing that is not preapproved, then the student will lose a full letter grade for the hands-on portion of the course.
- 4) None of the information provided in lecture or discussion is meant to be offensive or discriminatory. Some issues may be sensitive for you personally, but the discussion is not intended to single out anyone. *** If you have any condition that requires special accommodations in testing or class structure, please advise the instructor at the beginning of the semester so that appropriate action can be taken. ***

ATTENDANCE POLICY

- 1) Class Attendance and Participation. **Attendance is required (See ATTENDANCE POLICY)**, and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.
- 3) **All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.**
- 4) **More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!**

CELL PHONE / I-PHONE POLICY

- 1) **Students must turn off or silence cell phones, i-phone, and pagers while in class and will place them in a designated area in the classroom. If you are seen using these devices you will be asked to leave the classroom and will be counted as an unexcused absence. Computer laptops and tablets may be used for note taking only but if used for e-mailing or purposes other than the current class you will be asked to leave the classroom and will be counted as an unexcused absence.**

PLAGIARISM

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. ***Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.***

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.
- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

Title IX of the Education Amendments of 1972 prohibits sex discrimination in educational programs and activities.

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

- 20 U.S.C. § 1681 & C.F.R. Part 106

Sexual misconduct constitutes sexual discrimination and is prohibited by Title IX.

Sexual misconduct is any sexual act which violates the criminal laws of the State of Arkansas or laws of the United States including but not limited to sexual assault (non-consensual sexual contact or intercourse), domestic violence, dating violence, stalking, and sexual exploitation. The Title IX Coordinator oversees the university's compliance with Title IX of the Education Amendments of 1972. The Title IX Coordinator works with university administration, departments, students, faculty, staff, campus police and other support services to ensure that university policies and programs foster a campus community free of illegal gender discrimination and sexual violence.

Amy N. Pennington

Associate Vice President/Dean of Students and Title IX Coordinator

233 Doc Bryan Student Services Center

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Russellville, AR 72801

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apennington@atu.edu

TRIO – STUDENT SUPPORT SERVICES

“Student Support Services (SSS) is all about student achievement and success. Our goal is to help you succeed at Arkansas Tech University, help you attain graduation with a bachelor's degree, and gain the necessary skills to either enter the work force or enter graduate or professional school.”

Student Support Services

Brown Hall

105 West O Street, Suite 345

Russellville, AR 72801

Phone: (479) 880-4172

Fax: (479) 880-4239

trio.sss@atu.edu

Grading Scale (%)

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

COURSE INFORMATION

Check your email and Blackboard™ daily and weekly for announcements, assignments and additional information.

Final grade will be cumulative on all components of the class.

Please note that I do not always post quizzes, in-class assignments or attendance.

Course Outline

- I. Neuromuscular Application
 - A. Sport Movements/Mechanics
 - B. Exercise Mechanics
- II. Linear Kinematics
 - A. Sport Movements and Exercise Mechanics
 - B. Velocity Lab
 - C. Acceleration and Deceleration Lab
- III. Linear Kinetics
 - A. Sport Movements and Exercise Mechanics
 - B. Force Lab
 - C. Power Lab
 - D. Impulse-Momentum Lab
 - E. Exam 1
- IV. Angular Kinematics
 - A. Sport Movements and Exercise Mechanics
 - B. Sport/Lifting Joint Angle Displacement Lab
 - C. Sport/Lifting Joint Angular Velocity Lab
 - D. Throwing and Kicking Analysis Lab
- V. Angular Kinetics
 - A. Sport Movements and Exercise Mechanics
 - B. Isokinetic Lower Body Lab
 - C. Isokinetic Upper Body Lab
 - D. Exam 2
- VI. Stability and Proprioception
 - A. Sport and Human Movement
 - B. Stability/Balance Lab
- VII. Sport Mechanics
 - A. Kinematics and Performance
 - B. Kinetics and Performance
 - C. Sport Movement Analysis Lab
 - D. Exam 3
- VIII. Final Exam**

COURSE ASSIGNMENTS & EXAMS

Grade Title	Points
Velocity Lab	= 100
Acceleration and Deceleration Lab	= 100
Force Lab	= 100
Power Lab	= 100
Impulse-Momentum Lab	= 100
Sport/Lifting Joint Angle Displacement Lab	= 100
Sport/Lifting Joint Angle Velocity Lab	= 100
Isokinetic Lower Body Lab	= 100
Isokinetic Upper Body Lab	= 100
Stability/Balance Lab	= 100
Sport Movement Analysis Lab	= 100
Exam 1 + Exam 2 + Exam 3	= 300
Final Exam	= 100
Course Total Points	= 1500

ARTICLES:

You will be tasked to acquire **PEER REVIEWED** articles outside of the ones provided to you on Blackboard™ for the completion of assignments and lab write-ups. **Use of non-peer reviewed articles (web articles from www.livestrong.com, www.bodybuilding.com, www.elitefts.com, www.crossfit.com, www.ymca.net, etc. are not acceptable sources for articles use as these are not peer-reviewed articles)** will result in a 5 point deduction for EACH OCCURRENCE. It would be advisable to ask the instructor if your article is peer-reviewed and the correct referencing format is used prior to turning in your completed assignment. Take the time to read the article and if you are unsure or require clarity of a statement please do not hesitate to ask the instructor.

Example:

1. Brown JR, Alsarraf BJ, Waller M, Eisneman P, and Hicks-Little CA. Rotational Angles and Velocities During Down the Line and Diagonal Across Court Volleyball Spikes. International J Kines Sports Sci. 2(2): 1-8, 2014.
2. Siff MC. Biomechanical Foundations of Strength and Power Training. In, Biomechanics in Sport: Performance enhancement and injury prevention. Ed. Zatisiorsky VM. Oxford, England: Blackwell Science Ltd; Pp. 103-142, 2000.
3. Waller M, Townsend R, and Gattone M. Application of the power snatch for athletic conditioning. Strength Cond J. 29(3):10-20, 2007.

LABS

All Labs maybe done with a partner or individually, and IF done with a partner both names will be on the title page of the lab.

Labs will consist of calculating and assessing the specific variables of the movement that is being analyzed. **Your write up will include an introduction, methods, results, discussion and application sections reporting on the findings of the lab.** This time will be your chance to perform the movement and ask questions of the variables creating motions and what are the motions. The articles listed for this lab will be used in your write-up's discussion section. A

write-up of the phases of the exercises, neuromuscular variables, kinematics and kinetics that occur during the execution of the assigned exercise will be included in the write-up.

Lab and Writing Assignment Guidelines and Rubric (LATE PAPERS WILL NOT BE ACCEPTED*)

All papers may have an introduction and methods section but all will have a results, discussion and application section which will address the type of research conducted, statistical analyses performed, and any inferences made. A minimum of **2 peer-reviewed** articles will be acquired by the student in addition to the articles provided (web articles from www.livestrong.com, www.bodybuilding.com, etc. will result in point deductions as these are not peer-reviewed) will be used as references and properly cited and textbooks do not qualify as peer-review. Graphs, figures and tables are encouraged to be used but should add to the message of the review or bring clarity to a point. For credit, assignments will be **a minimum of 5 pages** using Times New Roman type, 12-point font, double spaced, and in Index Medicus format. NOTE: Figures and Tables do not count towards the final page count. ***Start reading and collecting the information early as possible, as the assignment will take time and the chance of preparing a well written review will be difficult to complete in only a week or a few days. **If you need help with scientific writing, please ask.** In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. *Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date) will only be accepted under unusual circumstances* and if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a “0” grade for the assignment. ***Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies.**

Bibliography

- Roger Enoka (2015) **Neuromechanics of Human Movement**, 5th ed. Human Kinetics. ISBN: 9781450458801
- Peter McGinnis (2021) **Biomechanics of Sport and Exercise**, 4th ed. Human Kinetics. ISBN: 9781492571407
- Gordon Robertson, Graham Caldwell, Joseph Hamill, and Saunders Whittlesey (2014) **Research Methods in Biomechanics**, 2nd ed. Human Kinetics. ISBN: 9781492576334
- Vladimir M. Zatsiorsky, William J. Kraemer, and Andrew C. Fry (2021) **Science and Practice of Strength Training**, 3rd ed. Human Kinetics. ISBN: 9781492592006
- Peter Maud and Carl Foster (2006) **Physiological Assessment of Human Fitness**, 2nd ed. Human Kinetics. ISBN: 9780736046336

Writing Assignment Guidelines (Labs) and Rubric

Criteria	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions: <i>(For reviews and research)</i> <i>Introduction</i> <i>Methods</i> <i>Results</i> <i>Discussion</i> <i>Application</i> (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points & sub-points with a significant amount of detail & clearly delineated.	The material is organized and covers 70-90% of a key point(s). 1-2 elements do not relate to topic. 4-6 errors	The material covers 50-69% of a key points, minimal details, some points are unclear/incorrect. 7-9 errors	The material is missing many of a key points, thoughts are scattered, and incorrect details. >10 errors
Professional writing (35 points)	There are less than 3 errors (See guidelines Below)	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

Professional writing: Proper word selection, spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, sentence & paragraph flow, sentence & paragraph transition, Times New Roman, 12 font, and double spaced. Spelling.

Note: The syllabus is not a binding legal contract. It may be modified by the instructor when the learner is given reasonable notice of the modification, particularly when the modification is done to rectify an error that would disadvantage the learner.

HES 4063 Health and Fitness Programming
Dr. Michael Waller USAW-L2, CSCS*D, NSCA-CPT*D, FNSCA
Arkansas Tech University
Department of Health and Physical Education
Phone: 479-964-0526
E-mail: mwaller3@atu.edu
Office Hours: M,W,F 10am-12pm; or by Appointment
My door is always open, unless I am meeting with another student.

PREREQUISITES:

Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

COURSE DESCRIPTION:

This course is designed to provide the student with the opportunity to discover various methods employed in planning and implementing wellness and fitness programs in multiple settings. Special emphasis is placed the administration of client-specific health enhancement programs designed for persons in the following settings: corporate, fitness center, and physical rehabilitation.

COMPETENCIES:

- 1) The course will prepare students to effectively complete the following:
- 2) Design and evaluate the needs of various populations.
- 3) Describe and demonstrate the use of various physical fitness testing procedures typically utilized in the health and wellness profession.
- 4) Effectively identify and demonstrate skills and knowledge required in the selection process of appropriate educational materials designed for a target population.
- 5) Demonstrate knowledge of the components of wellness in order to target programs that enhance each aspect of wellness.
- 6) Describe how to plan and implement wellness programs for white or blue collar workers.
- 7) Demonstrate the ability to effectively market a wellness program to a company CEO by stressing the importance of identifying work ergonomics potential overuse injuries with an effective injury prevention protocol.
- 8) Discuss advertising and cost-effectiveness of fitness and wellness enhancement programs.

COURSE PROCEDURES AND EXPECTATIONS

- 1) Professional job expectations include the fact that you will arrive to work “on time.” This course should be treated the same, as it is a direct link to your future professional success. Participation points will be deducted for each late arrival (for class lectures and labs).
- 2) I expect you to work hard every day and I expect you to respect and help each other during every class.
- 3) Athletic apparel should be worn during gymnasium, weight-room and lab sessions. This means athletic shoes (e.g. cross-trainers), t-shirts, and shorts or athletic pants. Failure to arrive dressed for and participate in activities will result in a **5-point deduction**. (For activity labs or assignments)

- 4) You will need access to a computer, the web, and a word processing program for course assignments.
- 5) **ALL WRITING ASSIGNMENTS:** For credit, assignments must be typed, Times New Roman font, double-spaced, 12-point font size, and in APA format as set by the university. In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. **NO LATE ASSIGNMENTS WILL BE ACCEPTED***. Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date and time) will only be accepted under unusual circumstances** and if the instructor is notified in a prompt manner. If the instructor is not notified of such circumstances in a timely manner, the student will receive a “0” grade for the assignment.
- 6) **Assignments must reflect original work. Although problem-solving in groups is recommended, students may not turn in assignments that are identical to one another. Assignments turned in by students that have large volumes of information that are identical to each other constitutes a violation of the Student Code, and will receive no credit. (See PLAGIARISM Section)**
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STUDENT RESPONSIBILITIES

- 1) Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.
- 2) Respect for the in-class members and the professor. **All electronic communications devices including cell phones will be placed in a designated area or will be turned off during class and placed in your bag (See CELL PHONE / I-PHONE POLICY).** Students who are texting, playing games, sleeping or being disruptive distract those who are trying to listen and participate, will be dismissed from the course and counted as unexcused absence. If you are tired or feel the need to use your phone leave the classroom and return when you are finished. It will be your responsibility to ask your classmates to assist you with the material missed.
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profane or clothing that is not preapproved, then the student will lose a full letter grade for the hands-on portion of the course.

- 5) None of the information provided in lecture or discussion is meant to be offensive or discriminatory. Some issues may be sensitive for you personally, but the discussion is not intended to single out anyone. *** If you have any condition that requires special accommodations in testing or class structure, please advise the instructor at the beginning of the semester so that appropriate action can be taken. ***

ATTENDANCE POLICY:

University Policy states:

“Regular class attendance is considered essential if students are to receive maximum benefit from any course. Control of class attendance is vested in the teacher, who has the responsibility of defining early in each course his/her standards and procedures. A student accumulating an excessive number of unjustifiable absences in a course may be dropped from the course by the instructor with a grade of ‘FE.’ A student who is dropped from three courses in a semester for unsatisfactory class attendance may be immediately suspended.”

- 1) Class Attendance and Participation. **Attendance is required (See University Policy)**, and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.
- 2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor’s availability. These make-ups will occur within 2 weeks upon the student’s return to class.
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Amy N. Pennington
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TRIO – STUDENT SUPPORT SERVICES

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Phone: (479) 880-4172
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trio.sss@atu.edu

Required text: Waller, M. and Kirkpatrick, R. (2021) Concepts of Fitness and Exercise Programming. Kendall Hunt Publishing Company. Dubuque, IA. ISBN: 978-1-7924-4875-1

Grading Scale

≥ 90% = A 80% - 89% = B 70% - 79% = C 60% - 69% = D ≤ 59 = F

COURSE OUTLINE

- I. Introduction (Weeks 1 – 3) (Chapter 4)**
 - A. Public Health, Fitness, Performance
 - B. Planning and Programming
 - 1) Basics of Periodization
 - 2) Basics of Programming
 - C. Exercise Instruction (Appendices)
- II. Overweight and Obesity (Chap 5)**
 - A. Classification
 - 1) Body Mass Index
 - 2) Body Composition
 - 3) Weight and Body Type
 - B. Influencing variables
 - C. Programming and Prevention
- III. Cardiovascular Diseases (Chapter 6)**
 - A. Types
 - 1) Cardiac

- 2) Vascular
 - 3) Genetic versus Environmental
- B. Influencing variables
- C. Programming and Prevention
- IV. Diabetes and Metabolic Diseases (Chapter 7)**
 - A. Types
 - 1) Insulin Dependent
 - 2) Non-insulin Dependent
 - 3) Metabolic Syndrome
 - B. Influencing variables
 - C. Programming and Prevention
- V. Respiratory Diseases (Chapter 8)**
 - A. Types
 - 1) Chronic Obstructive Pulmonary Disorder
 - 2) Cystic Fibrosis
 - 3) Emphysema
 - 4) Asthma
 - B. Influencing variables
 - C. Programming and Prevention
- VI. Musculoskeletal Disorders (Chapter 9)**
 - A. Types and locations
 - 1) Low-, Upper-Back and Neck Injuries
 - 2) Muscular strains, tears and contusions
 - 3) Falls, crushing, and motor vehicle accidents
 - B. Post-Physical Therapy
 - C. Influencing variables
 - D. Programming and Prevention
- VII. Recreational Athlete (Chapter 10)**
 - A. Sport Types
 - 1) Seasonal for recreation
 - 2) Leagues for competition
 - 3) Sport for health & fitness
 - B. Influencing variables
 - C. Programming and Prevention
- VIII. Occupational Performances (Chapter 11)**
 - A. Occupational needs analysis & screening
 - 1) Seasonal
 - 2) Annual no breaks in work
 - 3) Office to Construction
 - 4) Physical Demand Levels
 - B. Influencing variables
 - C. Programming and Prevention
- IX. Tactical Performance (Chapter 12)**
 - A. Types
 - 1) Law Enforcement and Fire Fighters
 - 2) Military – Field, Operators, Equipment

- 3) Medical and Security
- B. Influencing variables
- C. Programming and Prevention

EXAMS AND ASSIGNMENTS

OCCUPATIONAL NEEDS ANALYSIS, RECOMMENDATIONS, AND PROGRAM.

Due OCT 26 at Beginning of class

Develop a report that details the physical and mental demands for a specific occupation, associated ergonomics, and training for improved performance. The questions below should be addressed when developing your recommendations and a physical training plan and will be fully developed. Tables and figures are optional but may prove beneficial to layout the training plan and programs, at-risk positions, and display of additional information. Your submission will be supported by a minimum of 5 peer-reviewed articles. You will choose the tests to be used, equipment needed, and the overall benefit to the employee and company. (About 15-30 pages)

1. *What are the at-risk movements, skills, and positions of the occupation, why? (15 points)*
2. *What tests and evaluations would be used and why? (20 points)*
3. *What references support your analysis and recommendations? (10 points)*
4. *What activities, education, or ergonomic changes will be used and why? (20 points)*
5. *What physiological and mental stresses in the respected occupation? (15 points)*
6. *What will be the safe and effective physical training plan and program? (20)*

Occupations

1. Construction Laborer
2. Landscaping
3. Roofer – Commercial
4. Commercial driver (Tractor-Trailer)
5. Commercial delivery (e.g. UPS)
6. Warehouse & dock loader
7. Facilities Management/Custodian
8. Forest and Conservation Worker
9. In-patient Nurse
10. Airlines Baggage Handler
11. Pipefitter
12. Masonry Worker
13. Heavy Machinery Operator (e.g. Bulldozer)
14. Ironworker
15. Locomotive Engineer (Railroad Worker)

TACTICAL NEEDS ANALYSIS, RECOMMENDATIONS, AND PROGRAM.

Due NOV 23 at Beginning of class

Develop a report that details the physical and mental demands for a specific occupation, associated ergonomics, and training for improved performance. The questions below should be addressed when developing your recommendations and a physical training plan and will be fully developed. Tables and figures are optional but may prove beneficial to layout the training plan and programs, at-risk positions, and display of additional information. Your submission will be

supported by a minimum of 5 peer-reviewed articles. You will choose the tests to be used, equipment needed, and the overall benefit to the branch of service. (About 15-30 pages)

1. *What are the at-risk movements, skills, and positions of the occupation, why? (15 points)*
2. *What tests and evaluations would be used and why? (20 points)*
3. *What references support your analysis and recommendations? (10 points)*
4. *What activities, education, or ergonomic changes will be used and why? (20 points)*
5. *What physiological and mental stresses in the respected occupation? (15 points)*
6. *What will be the safe and effective physical training plan and program? (20)*

Occupations

1. Military – Infantry related Combat MOS
2. Military – Fighter Jet Pilot
3. Military – Helicopter Pilot
4. Military Police
5. Military – Operators (e.g. Navy SEALs, Delta)
6. Military – Naval Engineer Mechanic
7. Gambling Surveillance Officer
8. Law enforcement – Patrol Officer
9. Law enforcement – SWAT
10. FBI – Hostage Rescue Team
11. Firefighter
12. Smokejumpers – US Forest Service
13. Emergency Medical Technician or Paramedic
14. Correctional Officer
15. Naval/Coast Guard Quartermaster

LATE ASSIGNMENTS WILL NOT BE ACCEPTED!!

1. Occupational needs analysis, recommendations, program	100 points
2. Tactical needs analysis, recommendations, program	100 points
3. Exam Chapters 4	50 points
4. Exam Chapters 5	50 points
5. Exam Chapters 6	50 points
6. Exam Chapters 7	50 points
7. Exam Chapters 8	50 points
8. Exam Chapters 9	50 points
9. Exam Chapters 10,11,12	100 points
10. <u>Final Exam</u>	<u>100 points</u>
Total Points	700 points

Bibliography

1. Bates, M, Spezzano, MJ, and Danhoff, G. Health Fitness Management, 3rd ed. Champaign, IL. Human Kinetics. 2020.
2. Bishop, C, Turner, A, Jarvis, P, Chavda, S, and Read, P. Considerations for selecting field-based strength and power fitness tests to measure asymmetries. *J Strength Cond Res* 31(9): 2635–2644, 2017

3. Ellenbecker, T. and Davies, G. Closed kinetics chain exercise. Champaign, IL, Human Kinetics. 2001. (Unique testing and exercise programming information)
4. Knapik, JJ, Sharp, MA, and Steelman, RA. Secular trends in the physical fitness of United States Army recruits on entry to service, 1975–2013. *J Strength Cond Res* 31(7): 2030–2052, 2017.
5. McGill, S. Low back disorders. Champaign, IL. Human Kinetics. 2002. (3rd edition. 2016 ISBN-13: 9781450472913). (Unique testing and exercise programming information)
6. Neiman, D. Exercise Testing and Prescription, 7th edition, New York, NY. McGraw-Hill Publishers. 2011. ISBN: 978-0-07-337648-6.
7. Savage, RJ, Best, SA, Carstairs, GL, Ham, DJ, and Doyle, TLA. On the relationship between discrete and repetitive lifting performance in military tasks. *J Strength Cond Res* 28(3): 767–773, 2014.
8. Storer, TW, Dolezal, BA, Abrazado, ML, Smith, DL, Batalin, MA, Tseng, C-H, and Cooper, CB; The PHASER Study Group. Firefighter health and fitness assessment: A call to action. *J Strength Cond Res* 28(3): 661–671, 2014.
9. Zambraski, EJ and Yancosek, KE. Prevention and rehabilitation of musculoskeletal injuries during military operations and training. *J Strength Cond Res* 26(7): S101–S106, 2012.

Labs and writing assignments will be evaluated based on the following criteria.

Note: Points will be adjusted to fit scoring scale

Criteria	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions: (For reviews and research) <i>Introduction</i> <i>Methods</i> <i>Results</i> <i>Discussion</i> <i>Application</i> (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points & sub-points with a significant amount of detail & clearly delineated.	The material is organized and covers 70-90% of a key point(s). 1-2 elements do not relate to topic. 4-6 errors	The material covers 50-69% of a key points, minimal details, some points are unclear/incorrect. 7-9 errors	The material is missing many of a key points, thoughts are scattered, and incorrect details. >10 errors
Professional writing (35 points)	There are less than 3 errors (See guidelines Below)	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

Professional writing: Proper word selection, spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, sentence & paragraph flow, sentence & paragraph transition, Times New Roman, 12 font, and double spaced. Spelling.

Presentation Rubric

Task	Criteria	Low Standards	Moderate Standards	High standards	Pts
1. Attire	Dresses for occasion	Shorts, t-shirts, shower shoes, stained or torn clothing	Clean jeans/warm-up suit, collared athletic shirt, casual work or athletic shoes	Nice slacks/skirt, button-up shirt or sweater, dress shoes/boots	5
2. Mannerisms	Volume, speed, & clarity, poise	Reads presentation from notes or slides, mumbles, difficult to hear, multiple gestures or expressions unrelated to presentation	Speaks clearly at adequate volume, rushes, pauses or makes gestures or expressions unrelated to presentation, ie: um, uh	Clear, relaxed speech throughout, uses speech effectively to emphasize main points, few nervous gestures/expressions, use of eye contact.	5
3. Use of technology	Uses PowerPoint	Disorganized, repetitive, includes every word of presentation in slides	Slides are concise, organized, minimal repetition	Additional details in slide background, transitions, etc	5
4. Additional materials	Hand-outs, photos, charts, video, graphics	None observed	2-4 observed (may be included in ppt)	5 or more observed (may be included in ppt)	10
5. Vocabulary	Correct terminology	Frequent use of slang/text expressions, no explanation of specific terms	Occasional use of slang, explains program specific terms	Professional vocabulary & terminology used throughout	10
6. Writing errors in slides	Spelling, grammar, punctuation, word use	> 6 errors noticed	4-6 errors noticed	1-3 errors noticed	10
7. Timeframe	Length of class time	Unsuccessfully utilized entire class time ($\leq 75\%$ of class time)	Completed $>75\%$ but $< 90\%$ of class time	Effectively used class time and disseminated information	10
8. Answered questions	Asks for questions, answers questions	Unable to answer or unclear, incorrect answers for 50% of questions	Rambling when answering, answered 75%	Clear, direct answer to all questions, and answered 100%	5
9. Content	Accuracy of information	Information was general; lack of peer-review support; did not address topic	Information had only < 3 professional and 3 peer-review references; presented 50% topic	Information had > 3 professional and >3 peer-review references; presented topic	40

Syllabus **Lifetime Health and Fitness**

Course Number: HLED 1513

Course Title: Personal Health and Wellness

Instructor Information:

Dr. Brett A. Stone

Office: Hull 109

Office Phone: 479-968-0430

Email: bstone10@.edu

Office Hours

Monday, Wednesday, and Friday 10:00 a.m. to 11:00 a.m. and Tues/Thurs at 4:00-5:00 pm.. Additional office hours can be arranged by appointment.

Academic Credit:

3 semester hours

Catalog Description: The course is designed to motivate the student toward an individual responsibility for their health status and an improved quality of life. An introspective study of personal lifestyle behavior is encouraged. The interrelationship of the multi-causal factors which directly affect health status and the various dimensions of personal health are emphasized.

Required Text:

Insel, P. M. & Roth, W.T. (2017) Core Concepts in Health. (15th Edition). New York: McGraw Publishing Company.

Bibliography: *(supplement reading list)*

Duyff, R.L. (2006) ADA Complete Food and Nutrition Guide, (3rd Edition). Hoboken, J.: Wiley.

Greenberg, J (2009). comprehensive Stress Management. (11th Edition). New York: McGraw-Hill.

Hanson, G.R., et al. (2008). drugs and society. (10th Edition). Boston: Jones and Bartlett.

Lees, C. et al. (2007). Pregnancy and Birth: Your Questions Answered. London: Dorling Kindersley.

McKay, M., Fanning, P., & Paleg, K. (2007). Couple Skills: Making Your Relationship Work. New York: New Harbinger.

Seligman, M.E. (2006). *Learned Optimism: How to Change Your Mind and Your Life*. New York: Vintage.

U.S. Government. (2007). *2007 American health and medical Encyclopedia: Authoritative, Practical Guide to health and Wellness*,. FDA, CDC, NIH, Surgeon General Publications (CD-ROM). Washington D.C.: Progressive Management.

Justification for the Course: This course contributes significantly to the 10th objective of our general education requirements, i.e. "understand and appreciate the importance of factors that contribute to personal health and wellness." In addition, the primary general education objective of "listen attentively, and read, write, and speak clearly and effectively" is emphasized within this course framework.

Competencies: The course is structured to ensure that the student will:

1. Discuss techniques which may be employed to improve mental health status;
2. discuss Maslow's hierarchy of needs and the relationship between fulfilling one's personal needs and achieving optimal health status;
3. identify components of an addictive personality and describe strategies to modify personal behavior pertaining to personality type;
4. determine the personal behaviors and lifestyle choices that enhance health status;
5. discuss the physiological responses of tobacco use on the human body;
6. discuss the health inhibiting effects of short-term and long-term tobacco use on the individual that uses tobacco products;
7. discuss the process of alcohol metabolism in the body and identify the factors which determine the rate of alcohol metabolism;
8. describe the immediate and potential long term physiological effects of alcohol on the human body;
9. discuss methods in which alcohol may be consumed in a responsible manner;
10. list and discuss various types of sexually transmitted disease, and demonstrate knowledge of preventing sexually transmitted disease infection;
11. discuss the effectiveness of different methods of birth control, and identify appropriate locations to purchase birth control devices;
12. list and discuss health related issues and services for the aging person;
13. list and discuss environmental health issues and topics which impact quality of life;
14. identify and discuss communicable and chronic diseases that impact health status
15. discuss techniques to establish a basis for wellness.
16. discuss techniques to make a personal nutritional plan.
17. discuss exercise for health, fitness, and managing weight.

Educational Opportunities: Some strategies deployed in the course include:

1. lecture and discussion regarding knowledge and skill development activities which enhance quality of life;
2. student participating in instructor-directed interactive internet experiences;
3. student participation in small group discussions and a group presentation addressing specific health related concerns.
4. Student viewing of commercially prepared videotapes and filmstrips which address health enhancing skills and knowledge (web based video).

Assessment Methods:

Evaluation

I. Performance in the class will be evaluated using the following criteria:

1.) Written Examinations:

A. There will be four written examinations. Exam format include a combination of the following assessment strategies: multiple choice, true/false, short answer, essay, and team-based applications. An exam is tentatively scheduled every other week beginning in week 3 of the semester; however, where heavy content is reviewed, an additional week of classroom discussion and activity may be required. Exams are generated mostly from content covered in the text assigned to the course. Content from supplemental readings assigned in the unit of study are intended to help you strengthen short answer and essay responses. Exams are posted to Blackboard under "Content" and have time limit.

2.) Homework Assignments:

A. Homework assignments are due at the end of each week. There are four (4) assignments in particular that are tentatively scheduled for the weeks in-between exam weeks, and each is designed to supplement course readings/discussions; but, more importantly, inform you of an appropriate application of that content in the health promotion/education profession. Such assignments may consist of short research projects and/or web-based activities.

3.) Develop and Deliver Assignments

- A. During weeks when no exams are scheduled, you will be asked to develop, create, or expand on certain topics in health promotion that are both timely and relevant to all populations. These assignments are generally written assignments to be completed individually, with partners, or teams. Likewise, some activities are designed to assess your foundational knowledge of key constructs from outside readings where you communicate your findings to the class via the Discussion Forum.

Graded Components and Weights		
Exams	Four (4) exams @ 50 pts each	200 pts.
Homework Assignments	Four (4) Assignments @ 10 pts each	40 pts.
Application Assignments	Develop and Deliver Assignments (approximate)	40 pts.
Total		280 pts

Grading Scale

Each test is graded by the following scale; the final grade is an accumulation of total correct-points and is graded on the following percentage-of-total scale:

100% - 90% = A

89% - 80% = B

79% - 70% = C

69% - 60% = D

59% - 0% = F

ATTENDANCE POLICY/ ACADEMIC DISHONESTY/EXAMS and LATE WORK:

Attendance

This course is designated as a hybrid course; therefore, it is expected that students attend all lectures and classroom activities delivered in either face to face settings or video conferencing. Students who attend class will perform better overall on assignments, exams, and course objectives. Attendance is recommended. All students are expected to log into the class during scheduled WebEx class sessions and participate in discussion topics in order to acquire both an understanding of course material and to develop

proficiency in teaching skills. Likewise, students are expected to actively participate in class proceedings. Attendance and participation maintains that "classroom norms" are followed. That is, students are present, their camera is running, and they are interacting with one another with the content of the course. Attendance means that students are logged into the class the entire class period without early exits. Moreover, trying to attend class while conducting other multitasking activities including work and home site obligations will simply not work. Attending class while driving a vehicle, operating machinery, or other modes of transportation is not only discouraged but could have legal consequences. Regarding weekly discussion posts and Develop/Deliver assignments posted to the discussion forum: in order to view other comments in the class discussion forums, it is generally required to develop a post or response first in order to see the contributions of other members in the class. So, it is strongly encouraged to develop your posts and submit them early in the week to maximize your involvement with discussion. After a discussion forum closes, no points will be awarded for contributions.

ACADEMIC DISHONESTY AND ACADEMIC MISCONDUCT

Academic dishonesty is defined as: Cheating on an examination, quiz, or homework assignment involves any of several categories of dishonest activity. Examples of this are: a) copying from the examination or quiz of another student, b) bringing into the classroom notes, messages, or crib sheets in any format which gives the student extra help on the exam or quiz, and which were not approved by the instructor of the class; c) obtaining advance copies of exams or quizzes by any means; d) hiring a substitute to take an exam or bribing any other individual to obtain exam or quiz questions; e) buying term papers from the Internet or any other source, f) using the same paper to fulfill requirements in several classes without the consent of the professors teaching those classes, g) submitting another person's lesson plans and/or assignments, and h) providing another student with answers. Plagiarism is also defined as academic dishonesty.

Academic misconduct concerns the student's classroom behavior. This includes the manner of interacting with the professor and other students in the class. For example, students disrupt the learning environment in a classroom through inappropriate behavior, such as, talking to students, unnecessary interruptions, attempting to monopolize the professor's attention, or being chronically late to class. Misconduct also covers verbal or nonverbal harassment and/or threats in relation to classes. Student behavior should not infringe on the rights of other students or faculty during a class.

Academic dishonesty and academic misconduct will be dealt with according to the Faculty Handbook.

Exams

Students are expected to take exams on the scheduled date. Only by permission may students complete an exam at another date or time. In any case, make-up exams, unless otherwise agreed upon by the instructor, are to be taken within one week of the original scheduled date of the exam. Unless permission has been given, the use of cellular phones and other forms of technology during examinations or during other in-

class assignments including lectures or presentations is strictly prohibited (See Cell Phone Policy Below).

Late Work

A late assignment is defined as an assignment submitted to the professor for evaluation 10 minutes after the scheduled due date/time. Unless permission from the professor is granted in advance, an assignment submitted to the instructor for evaluation 10 minutes after the time it was due, will be deducted by 10%. (*Example: if you earn an 85% on the assignment, then late 10 minutes will reduce the grade to 75%.*). If an assignment is late 24 hours past the due date, a total of 20% will be deducted. An additional 20% will be deducted for each 24 hour period following.

Students with school-related activities and other obligations must meet the same deadlines as do other members of the class. Unless permission is otherwise granted, students traveling for school-related activities are expected to turn in their work before they leave for the event. This policy ensures that while away on a school-related activity, the student is not fretting over unfinished work and looming deadlines.

DISCRIMINATION STATEMENT

Arkansas Tech University does not discriminate on the basis of color, sex, sexual orientation, gender identity, race, age, national origin, religion, veteran status, genetic information, or disability in any of our practices, policies, or procedures. If you have experienced any form of discrimination or harassment, including sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the institution. If you report such an incident of misconduct to a faculty or staff member, they are required by law to notify Arkansas Tech University's Title IX Coordinator and share the basic fact of your experience. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus. For more information please visit: <http://www.atu.edu/titleix/index.php>.

Arkansas Tech University adheres to the requirements of the Americans with Disabilities Act in order to prevent barriers to academic accessibility. If you need an accommodation due to a disability, please contact the ATU Office of Disability Services, located in Doc Bryan Student Center, Suite 171, or visit <http://www.atu.edu/disabilities/index.php>.

STUDENT NEEDS STATEMENT

Any student who faces challenges securing food or housing and believes this may affect his/her performance in the course is urged to notify the instructor, if s/he is comfortable in doing so. Community resources are available for students and can be found at the following webpage: <https://www.atu.edu/localresources/>. If a student finds s/he needs more support, s/he is encouraged to contact the Office of the Vice President for Student Services (479 968 0238).

DISCLAIMER

If modifications to the syllabus are made, an announcement will be made in class and an addendum will be provided to the students.

Email and in-class announcements will be the primary form of communication I will use to update you of class requirements and changes. Attendance is vital. E-mail is also a common form of communication. At times, I may send notification emails to students; therefore, it is the student's responsibility to check your OneTech e-mail daily for course information, announcements, or changes

Course Content: (Tentative Outline)

Unit 1. Taking Charge of Your Health

- I. What health is and is not
 - A. Viewing the ages of Health
 - B. What can knowledge, attitudes, and practices do for us
 - C. Bringing about health changes.
 - D. Health related issues and services for the aging person

Unit 2. Stress: The Constant Challenge

- I. Types of Stress
 - A. Eustress
 - B. Distress
- II. Personality Types
 - A. Type A, B, C personalities.
 - B. Individual differences
 - C. Strategies to modify personal behavior
- III. Physiological Responses of Stress
 - A. Fight-or-Flight reaction.
 - B. Relaxation responses.
 - 1. Deep breathing
 - 2. Guided imagery
 - 3. Progressive relaxation
 - 4. Exercise
 - 5. Humor
- IV. Time Management
 - A. Controlling your time assists in controlling stress
 - B. Time schedules
 - C. Time savers and time wasters

- V. Psychological Health
 - A. Methods and techniques employed to achieve mental health and wellness
 - B. Warning signs of suicide
 - C. Maslow's Hierarchy of needs

Unit 3: Substance Abuse

- I. Tobacco Products
 - A. Short and long term physiological effects of nicotine and tobacco on the body
 - B. Secondary reinforcers of substance use
 - C. Effects of tobacco smoke on the nonsmoker
- II. Alcohol
 - A. Drug of choice in our society
 - B. Alcohol metabolism- processing factors
 - C. Physiological effects of alcohol on the body (immediate and long-term)
 - D. Responsible consumption of alcohol
 - E. Skills in rejecting alcohol use opportunities
 - F. Warning signs of alcohol abuse
 - G. Addictive personalities

Unit 4: Physical Fitness

- I Aerobic and Anaerobic Fitness
 - A. Cardiorespiratory functioning
 - B. Metabolism and body fat
 - C. Muscular strength and flexibility
 - D. Endurance activities
 - E. F.I.T.
 - F. Assessing body composition and weight
 - G. Factors contributing to over-weight
 - H. Safety and injury prevention considerations

Unit 5: Protecting Yourself from Disease

- I. Chronic and Communicable Diseases
 - A. Definitions
 - B. Various types and prevention
- II. The Cardiovascular System
 - A. Atherosclerosis
 - B. Hypertension
 - C. Heart Attacks

- D. Stroke
- E. Cardiovascular disease and personal lifestyle
- F. Environmental health issues

III Cancer

- A. Types of cancer and incidence rates
- B. Causes of cancer
- C. Detecting, diagnosing, and treating cancer
- D. Cancer prevention

IV. Sexually Transmitted Diseases

- A. Primary STD's
- B. Prevention of STD's
- C. Diagnosis and treatment of STD's

Unit 6: Living in Relationships

I. Intimate Relationships

- A. Characteristics of quality relationships
- B. Selecting a compatible partner
- C. Ending relationships
- D. Communication methods that enhance relationships

II. Contraception

- A. Basic principles and effectiveness of various types of contraception
- B. Reversible contraception
- C. Permanent contraception
- D. Appropriate locations to purchase contraception

COVID-19 Considerations

In order to help keep our ATU community safe, healthy, and to prevent the spread of COVID-19, students must follow several steps:

1. Masks must be worn by all students in public spaces, including classrooms and laboratories. Any student showing up for class without a mask will be given the opportunity to retrieve one. Entry into classrooms and laboratories without a mask will be prohibited.
2. All students are required to participate in a daily health self-screen. For students commuting to campus, please complete before coming to campus. For residential students, please complete each day before leaving your residence hall.
3. All students must maintain at least 6 feet of distance from every person present in all instructional spaces used in this course (classrooms, laboratories, etc.)
4. Any student who tests positive for COVID-19 is asked to self-report to the ATU Health and Wellness Center by calling (479) 968-0329 or sending e-mail to hwc@atu.edu. Doing so will allow the university to communicate directly with others who might have been exposed to the virus and take any appropriate cleaning and sanitizing measures.

Students are expected to abide by the above steps in accordance with the Student Handbook section on Classroom Behavior.

For more information about ATU COVID-19 policies, please refer to the following ATU guidance documents.

ATU Pandemic Frameworks (<https://www.atu.edu/docs/Pandemic%20Framework-2020.pdf>)

ATU COVID-19 Student Daily Testing (<https://www.atu.edu/pandemicrecovery/student-health-screening.php>)

In addition, all faculty should familiarize themselves with the section of the Student Handbook related to classroom behavior to understand the process by which they can address non-adherence to the University policies described in the syllabus. The excerpt below is from the 2019-2020 Student Handbook:

3. Classroom Behavior

Each member of the Arkansas Tech University community is obliged to conduct her/himself in a non-disruptive manner in the classroom. If a student is being disruptive, the instructor will address the situation, discussing behavioral expectations moving forward, and emphasize possible consequences for failing to comply. If the disruptive behavior persists, the student may be suspended on an interim basis from the class. Instructors may report excessive and/or repeated disruptive behavior through the Procedures for Addressing Violations of Academic Integrity and Classroom Behavior. This process includes an appeals process students may use to challenge perceived violations or excessive penalties. Students who exhibit disruptive behavior may also be referred to the Department of Student Conduct (see Article III, Section C of the Arkansas Tech University Student Handbook).

If a classroom incident constitutes an emergency (e.g., any immediate threat to life and/or property) and requires an immediate response from police, fire or emergency medical services, please call 911.

SYLLABUS

Course Number:

HLED 3203

Course Title:

Consumer Health Programs

Instructor Information:

Name: Randy Kirkpatrick
Office: Hull 117
Phone: 498-6094
E-mail: wkirkpatrick@atu.edu
Office Hours: M - F: 2:00 – 3:00

Catalog Description:

A study of current health services and the products offered by health providers to the health consumer and an examination of various diseases and disorders.

Required Text:

Barrett, S., London, W. M., Baratz, R. S., Hall, H. & Kroger, M. (2013). Consumer health: A guide to intelligent decisions (9th ed.). McGraw-Hill.

Bibliography:

Barrett, S., & London, W. M., Baratz, R. S., & Kroger, M. (2007). Consumer health: A guide to intelligent decisions (8th ed.). McGraw-Hill.

Justification/rationale for course:

This course assists with the development of becoming an informed consumer which enables an individual to make appropriate decisions regarding health care products and services, and introduces the student to various communicable diseases which may affect personal health status.

Course Objectives:

The course is structured to ensure that the student will:

1. adequately discuss the origins of the consumer movement that have evolved into the current status of the marketplace in our society.
2. identify and discuss the components of the Consumer Bill of Rights and describe the basic characteristics of being an intelligent health consumer.
3. exhibit an understanding of various federal laws, which have been enacted to assist the health consumer in obtaining safe, and effective health products, medications, and services.
4. recognize health products and services that consist of unproven and questionable claims pertaining to health.
5. exhibit an understanding of the role of the scientific method in forming conclusions about the validity of health products, services, and claims.
6. discuss the purpose of advertising and the role advertising plays in persuading consumers to purchase health products and services.
7. define scientific and nonscientific health care and identify the various practitioners from each category.
8. adequately discuss suggested methods of selecting health care facilities in our society.
9. effectively analyze the differences and similarities between generic and brand name drugs in regard to their strength, effectiveness, and cost.
10. identify and effectively discuss basic exercise concepts, devices, and services, which assist the health consumer in improving personal lifestyle.
11. describe the primary roles and responsibilities of various federal government agencies regarding the protection and education of the health consumer against unsafe and ineffective products and services.

12. identify and discuss various communicable diseases which may have an impact on personal health status.

General Education Objective:

This course assists with meeting the general education goals as adopted by ATU regarding the understanding and appreciation of the factors that contribute to personal health and wellness.

Assessment Methods:

- Evaluation: Student performance in the class will be evaluated by employing the following criteria:
- Examinations: Four examinations will be given during the semester. Each examination is worth a total of approximately 65 - 80 points.
- Review Questions: These questions will be assigned to specific chapters in the course textbook. Each set of review questions will have various point totals.
- Class Project: The student will complete a class project that pertains to a consumer health product or service. The class project will be worth a total of 100 points.
- Quizzes and Assignments: Several quizzes and assignments will be completed during the course and will have various point values (discussion questions, opinion reports, etc...).
- Grading: The final grade for the course is computed on the accumulation of total points for the class and is based on the following scale:

90% - 100%	=	A
80% - 89%	=	B
70% - 79%	=	C
60% - 69%	=	D
Below 59%	=	F

Policy on Absences, Cheating and Plagiarism:

The instructor for this course will follow and enforce these policies as outlined in the current student handbook with regard to the Academic Misconduct/Academic Dishonesty Policy.

Course Content:

UNIT 1

DYNAMICS OF THE HEALTH MARKETPLACE

- I. Introduction to the Health Marketplace
 - A. The Consumer Movement
 - B. Caveat Emptor and Caveat Vendor
 - C. Consumer Bill of Rights
 - D. Defining Consumer Health
 - E. The Intelligent Health Consumer
- II. Frauds and Quackery
 - F. Defining Fraud and Quackery
 - G. Vulnerability to Health Fraud and Quackery
 - H. Spontaneous Remission and the Placebo Effect
 - I. Common Misconceptions of Quackery
 - J. Recognizing Quackery

- K. Media and Advertising
- III. Separating Fact From Fiction
 - L. The Scientific Method
 - M. Interpreting Statistics
 - N. Peer Review Process
 - O. Quality Sources of Health Information
 - P. Influence of Television and Radio
- IV. Advertising
 - Q. Purpose of Advertising
 - R. Hidden Motivators
 - S. Puffery in Advertising
 - T. Professional Advertising
 - U. Prescription Drug Advertising
 - V. Cost and Abuses of Advertising
 - W. Federal Trade Commission Policy

UNIT II

SELECTION OF HEALTH SERVICES AND PRODUCTS

- I. Scientific Health Care
 - A. Defining Scientific Health Care
 - B. Health Care Personnel
 - C. Allied Health Care Personnel
 - D. Selecting Health Care Practitioners
 - E. Health History and Physical Examinations
 - F. Incompetence and Malpractice
- II. Mental Health Care
 - G. Mental Health Practitioners
 - H. Psychiatric Treatment and Drug Therapy
 - I. Psychosomatic Concept
- III. Nonscientific Health Care
 - J. Defining Nonscientific Health Care
 - K. Holistic Medicine and Care
 - L. Nonscientific Health Care Personnel
 - M. Nonscientific Medical Practices

UNIT III

HEALTH CARE FACILITIES, PRODUCTS AND CONCEPTS

- I. Health Care Facilities
 - A. Accreditation of Hospitals
 - B. Selecting a Hospital
 - C. Living Will
 - D. Home Health Care Services
 - E. Selecting a Nursing Home
 - F. Alternatives to Nursing Home Care
 - G. Patient's Bill of Rights
 - H. Hospice Care
 - I. Ambulatory Care Centers
- II. Self-Care
 - J. Types of Self-Care

- K. Self-Diagnosis
- L. When to Consult a Physician
- M. Home Health Care Tests
- III. Drug Products
 - N. Prescription Drugs
 - O. Generic and Brand Name Drugs
 - P. Drug Interaction Effects
 - Q. Over-The-Counter Drugs
 - R. Drug Information References
- IV. Skin and Beauty Aids
 - S. Cosmetics and Soaps
 - T. Shampoos and Deodorants
 - U. Sun Protections and Tanning Salons
- V. Basic Nutrition Concepts
 - V. Six Classifications of Nutrients
 - W. Food Guide Pyramid
 - X. U.S. Dietary Guidelines
 - Y. Nutrition Labeling
 - Z. Appropriate Use of Supplements
- VI. Weight Control
 - AA. Basic Concepts
 - BB. Questionable Dieting Methods
 - CC. Low-Calorie Products and Fat Replacers
 - DD. Exercise and Behavior Modification

UNIT IV

PROTECTION OF THE CONSUMER

- I. Health Insurance
 - A. General Types of Health Insurance
 - B. Private Prepaid Fee-For-Service Plans
 - C. Guidelines for Selecting Health Insurance
- II. Health Care Economics
 - D. Personal Health Care Expenditures
 - E. Physician Fees
 - F. Hospital and Nursing Home Costs
 - G. Medication Costs
 - H. Reducing the Cost of Health Care
- III. Consumer Protection
 - A. U.S. Food and Drug Administration
 - B. Federal Trade Commission
 - C. Federal, State, and Local Agencies
 - D. Consumer Action

UNIT V

PREVENTION AND CARE OF DISEASES AND DISORDERS

- I. Communicable Diseases
 - A. Natural Disease Defense
 - B. Immunity

- C. Respiratory Diseases
 - D. Gastrointestinal Diseases
 - E. Sexually Transmitted Diseases
 - F. Lyme Disease
- II. Chronic Diseases
- G. Cardiovascular Diseases
 - H. Cancer
 - I. Diabetes

Notes:

1. It is strongly encouraged to not miss a scheduled examination without a valid reason. Arrangements to make up a missed exam must be made within three calendar days following the date it was originally given or the student will be assessed a score of zero on the exam. Late exams will be assessed a minimum 20% deduction and no extra credit points will be awarded on them.
2. Assignment due dates and times are listed on each assignment on blackboard. One late assignment will be accepted with a 50% deduction if it is turned in within 24 hours of the original due date. No other late assignments will be accepted for point value.
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4. The final exam is scheduled for the week of April 26 – 30, 2021.
5. Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.

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cloth-face-coverings.html). Note that CDC does not recommend the use of a face shield in the place of a cloth mask (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html>).

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- University Commons Clubhouse available beginning August 10th; Monday-Friday; 8am-10pm and Sunday; 5pm-10pm

3. All students must maintain at least 6 feet of distance from every person present in all instructional spaces used in this course (classrooms, laboratories, etc.).

4. Any student who tests positive for COVID-19 is asked to self-report to the ATU Health and Wellness Center by calling (479) 968-0329 or sending e-mail to hwc@atu.edu. Doing so will allow the university to communicate directly with others who might have been exposed to the virus and take any appropriate cleaning and sanitizing measures.

For more information about ATU COVID-19 policies, please refer to the ATU Pandemic Framework

(<https://www.atu.edu/pandemicrecovery/docs/Pandemic%20Framework-2020.pdf>) as well as the University's Pandemic Recovery webpage (<https://www.atu.edu/pandemicrecovery/>).

SYLLABUS

Course Number:

HLED 4403

Course Title:

Sport and Exercise Nutrition

Instructor Information:

Name:	Randy Kirkpatrick
Office Hours:	M - F: 2-3pm
Office:	Hull 117
Phone:	498-6094
E-mail:	wkirkpatrick@atu.edu

Academic Credit:

3 hours

Prerequisites:

PE 3653

Catalog Description:

A health education course which is designed to familiarize students with food as it relates to optimal health and performance. The focus is on nutrition as it effects the physical-work capacity of humans from resting states to high output performance.

Required Text:

Sizer, F. S., and Whitney, E. N. (2014). Nutrition concepts and controversies (13th ed.)
Wadsworth Cengage Learning.

Bibliography:

Sizer, F. S., and Whitney, E. N. (2012). Nutrition concepts and controversies (12th ed.).
Thomson Wadsworth.

Justification/rationale for the course:

This course assists students with the planning and implementation of dietary programs that assist with improving the quality of life for the casual exerciser and the athlete.

Course Objectives:

The course is structured to ensure that the student will:

1. list and adequately discuss several reasons that explain the process of food selection employed by members of our society.

2. identify and define the essential characteristics of dietary planning.
3. list the six classifications of nutrients and identify the elements comprising each nutrient.
4. list the energy containing nutrients and identify the amount of calories contained in each nutrient per gram of weight.
5. adequately discuss the food guide pyramid plan and provide examples of specific food sources from each group.
6. define the term carbohydrate and explain the differences between the nutrient density of carbohydrates.
7. define the terms lipid, fat, and oil, and explain the differences between animal fat and plant oils.
8. define the term protein and adequately describe the various roles of protein in the human body.
9. define the term vitamin, list the fat-soluble and the water-soluble vitamins, and explain the differences between the two classifications of vitamins.
10. define the term mineral and list various major minerals and trace minerals.
11. adequately discuss the significance of adequate consumption of water in the diet regarding proper functioning of body processes.
12. identify and discuss psychological and physiological causes of obesity and overweight in our society.
13. adequately discuss methods of obtaining and maintaining an appropriate weight according to principles based on scientific research in nutrition and weight management.
14. list and discuss reasons explaining why low carbohydrate diets and fasting are not effective methods to employ regarding long term weight loss and improvement in quality of life.
15. list the four components of physical fitness and describe scientific methods and techniques to employ to adequately modify each component.
16. list various snacks which have been identified as possessing high quality nutrient density based on low content of fat and adequate content of carbohydrate.
17. describe the relationship between diet and performance at a resting state, and more intense work capacities.
18. discuss the relationship between diet and body fuel sources employed at a resting state, and during more intense work capacities.

General Education Objective: This course is designed to assist the student in obtaining knowledge, skill, and competency in the science of nutrition. This course assists with meeting the general education goals as adopted by ATU regarding the understanding and appreciation of the factors that contribute to personal health and wellness.

Assessment Methods:

Student performance in the class will be evaluated by employing the following criteria:

Examinations: Four examinations are given during the course. Each written examination is worth a total of approximately 80 points.

Review Questions: These questions will be assigned to specific chapters in the textbook. Each set of questions will be worth various point totals.

Nutritional Analysis: A personal nutritional analysis will be completed by the student during the course. The nutritional analysis is worth a total of 50 points.

Quizzes and Assignments: Several quizzes and assignments will be given during the course and will be worth various point totals.

Grading:

The final grade for the course is computed on the accumulation of total points for the term and is based on the following scale:

90% and above	= A	60% - 69%	= D
80% - 89%	= B	59% and below	= F
70% - 79%	= C		

Policy on Absences, Cheating and Plagiarism:

The instructor for this course will follow and enforce these policies as outlined in the current student handbook with regard to the Academic Misconduct/Academic Dishonesty Policy.

Course Topics:

UNIT I BODY SYSTEMS AND DIET PLANNING

- I. The Remarkable Body
 - A. Cells and their inheritance.
 - B. Body fluids and the circulatory system.
 - C. The immune system.
 - D. The hormonal and nervous system.
 - E. The excretory system.
 - F. The digestive system.
 - G. Storage systems.
 - H. Temperature regulation.
 - I. Human food behavior.
 - J. Ancestors' diet.
- II. Nutrient Requirements and Diet Planning
 - A. Dietary ideals.
 - B. Essential nutrients.
 - C. Energy-containing nutrients.
 - D. Recommended nutrient intakes.
 - E. The RDA.
 - F. The RDA for nutrients.
 - G. The RDA for energy.
 - H. The U.S. RDA.
 - I. Dietary goals and guidelines.
 - J. Food group plans.
 - K. Exchange lists.
 - L. Diet planning.
 - M. Nutrition authorities.

UNIT II ENERGY-YIELDING NUTRIENTS

- I. Carbohydrates
 - A. What are carbohydrates?
 - B. Sugars, Starch, and Fiber.
 - C. The need for starch and fiber.
 - D. The body's use of glucose.

- E. Storing glucose as glycogen.
- F. Splitting glucose for energy.
- G. Maintaining blood glucose level.
- H. Converting glucose to fat.
- I. Abnormal use of carbohydrate.
- J. Lactose intolerance.
- K. Hypoglycemia and diabetes.
- L. White sugar versus purified fructose.
- M. Sugar substitutes.

II. Lipids

- A. What are lipids, fats, and oils?
- B. Usefulness of fats.
- C. Fatty acids.
- D. Hydrogenation of fats.
- E. Triglycerides in the body.
- F. Lipid transport within the body.
- G. Cholesterol levels in body and food.
- H. Fat in the diet.
- I. Visible and hidden fats.
- J. Fat and atherosclerosis.

III. Protein and Amino Acids

- A. What are protein and amino acids?
- B. Structure of proteins.
- C. Side chains and amino acids.
- D. Protein: strands of amino acids.
- E. Denaturation of protein.
- F. Roles of protein.
- G. The body's handling of protein.
- H. Digestion and absorption of protein.
- I. Quality and use of protein.
- J. Protein RDA.
- K. Animal versus vegetable protein.
- L. Protein and amino acid supplements.

UNIT III

REMAINING ESSENTIAL NUTRIENTS

I. Vitamins

- A. Definition and classification.
- B. Fat-soluble vitamins: A, D, E, K.
- C. Water-soluble vitamins.
- D. B-vitamins and metabolism.
- E. Vitamin deficiencies and toxicities.
- F. Vitamin supplements.

II. Water and Minerals

- A. Water and cellular activity.
- B. Roles of water in the body.
- C. Water supply.
- D. Body fluids.

- E. Water and the thirst mechanism.
- F. Major minerals.
- G. Trace minerals.
- H. Calcium supplements.
- I. Iron-fortified foods and iron supplements.

UNIT IV FAT CONTROL AND FITNESS

- I. Energy Balance and Weight Control
 - A. Mystery of obesity.
 - B. Metabolic and behavioral causes of obesity.
 - C. Defining appropriate weight.
 - D. Body composition.
 - E. Healthy weight gain.
 - F. Energy in versus energy out = Energy balance.
 - G. Estimating energy output.
 - H. Weight loss and fasting.
 - I. Low-carbohydrate diets.
 - J. Diet pills and other weight loss aids.
 - K. DIET: A four-letter word.
- II. Fitness, Nutrition, and Exercise
 - A. Why exercise?
 - B. Exercise and heart health.
 - C. Aerobic versus anaerobic exercise.
 - D. Oxygen, fuels, and muscular work.
 - E. Vitamins and minerals - keys to energy use.
 - F. Iron and performance anemia.
 - G. Calcium, bones, and exercise.
 - H. Fluid and electrolyte replacement.
 - I. Performance foods.
 - J. Pre-activity meals.
 - K. Supplements and the exercise participant.
 - L. Sports drinks.

Notes:

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2. Assignments are due at specified dates and times. One late assignment will be accepted with a 50% deduction if it is turned in within 24 hours of the due date.. No other late assignments will be accepted for point value.
3. If you believe that you have a special circumstance that may affect your attendance or performance in the class please notify the instructor at the beginning of the semester to provide an explanation of it. Examples could include child-care issues or job-related situations.

4. The Nutritional Analysis assignment will need to be saved by the students obtaining a teaching certificate so that it may be placed in the developmental portfolio.
5. The final exam is scheduled for the week of April 26 – 30, 2021..
6. Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.

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PE 1201 Orientation to HPEWS

PE 1201 Orientation to Health, Physical Education, and Wellness Science Spring 2021

I. Instructor Information

Name: Pete Kelly, M.Ed. Physical Education
Office Hours: Spring 2021
Office: Hull 101
Phone: 479-964-0583 Ext. 4904
E-mail: pkelly@atu.edu (Most preferred method of communication)
Office Hours:

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 am					
9:00 am		Virtual Office		Virtual Office	
10:00 am	PE 1431 (MO1)	Virtual Office	PE 1431 (MO1)	Virtual Office	
11:00 am	PE 1431 (MO2)	Virtual Office	PE 1431 (MO2)	Virtual Office	
12:00 pm	PE 3413 (MO1)		PE 3413 (MO1)		PE 3413(001)
1:00 pm	PE 2523 (MO1)	PE 4513 (MO1)	PE 2523 (MO1)	PE 4513 (MO1)	PE 2523(001)
2:00 pm					
2:30 pm					
3:00 pm					
4:00 pm			PE 1201 (MO1)		
5:00 pm					
6:00 pm					

II. Catalog Description

The course provides students an introduction to the HPE and WS curriculum as it affects the student. Emphasis will be given to resources, services, and opportunities available to the student through the University which will help him/her to grow as a professional.

III. Required Text

Arkansas Tech University Catalog which can be found online at the ATU website.

There is a \$20.00 required fee to join the HPEWS Club this semester. Go to Student Accounts and pay the fee then bring the receipt to class (you may email the receipt to the instructor) and you will be given the HPEWS Club membership card and HPEWS Club T-Shirt.

IV. Bibliography (supplemental reading list)

Which Traits Predict Success? (The Importance of Grit)

<http://www.wired.com/2011/03/what-is-success-true-grit/>

Grit: Perseverance and Passion for Long-Term Goals

www.sas.upenn.edu/~duckwort/images/Grit%20JPSP.pdf

V. Justification/rationale for the course

It is expected that through successful completion of this course, the student will be better prepared to utilize services, resources, and opportunities available at Arkansas Tech University.

VI. Course Objectives

Upon completion of this course, each student should be able to:

1. Identify curricular choices and opportunities.
2. Identify the characteristics of the successful college student.
3. Use and understand the college catalog.
4. Identify qualities of the HPE/WS professional.
5. Access and use the Hull Building and Pendergraft Library and Technology Center.
6. Identify components of a professional portfolio.
7. Access University services and resources and understand the importance of managing finances.
8. Identify graduate opportunities.
9. Identify ATU technology resources.

VII. Description of how the course meets General Education objectives

This course contributes to two of the six General Education Goals at Arkansas Tech University. Through the classroom activities and interaction, as well as the assignments, this course contributes to: 1. Communicate effectively (written summaries and group discussions); and 2. Think critically (written summaries, group discussions, and professional development).

VIII. Assessment Methods

Evaluation

A **PASS or FAIL grade** will be assigned for this course. Satisfactory completion of all course requirements will be required to pass the course. **A grade of Pass (P) or Fail (F) for this course will be noted on the college transcript. Successful completion of this course is a prerequisite to enrolling in upper division HPE/WS courses.**

Description of assessment activities

All of the following must be completed in order to pass this class (PE 1201).

1. Attendance

Students must attend a minimum of **seven (7) classes** for the full class meeting time. You must be in attendance during the entire class session to receive credit for attendance. This means virtually class sessions and/or face to face class sessions.

2. Written assignments

Students must complete a 3-2-1 paper on the presentation of each class. **These papers are due at the end of class or are due at a timeframe as indicated by the instructor.** The 3-2-1 paper will be completed fully with each point and will be written in manner that is well written and

neat. If not, the 3-2-1 paper will be marked incomplete and you will not be given credit. ***Late papers will not be accepted.*** If you are absent there will be no makeup assignments. **A minimum of seven (7) papers will be due.**

3-2-1 Instructions: Please write about three (3) things learned, two (2) things I would like to know more about, & one (1) thing I found the most interesting during each of the eight classroom learning opportunities.

3. Group discussion

As assessed by subjective evaluation, the student will participate in all class discussions and activities.

4. Professional development (SHAPE Standard 6.2)

Students must join the HPEWS Majors Club (\$20) and be a member during the semester you are taking this Orientation class. You may pay the \$20.00 for HPEWS Club membership at Student Accounts and bring your receipt to your instructor who will give you the HPEWS Club membership card and t-shirt.

Students must also attend at least **two HPEWS Club meetings/functions or events OR volunteer at two events during the semester you are enrolled in this Orientation class.**

Again, you must have your HPEWS membership card and attend at least two HPEWS Club meetings during the semester you are enrolled in this Orientation class. Put your membership card (not your receipt) from this semester in your developmental portfolio.

Pass/Fail Grading System for PE 1201:

	<u>Attendance</u>	<u>3-2-1 Paper</u>	<u>HPEWS Club Membership</u>	<u>HPEWS Club Meeting or Volunteer</u>
Week 1	1 point	1 Point	1 point (required)	1 point (required)
Week 2	1 point	1 Point		1 point (required)
Week 3	1 point	1 Point		
Week 4	1 point	1 Point		
Week 5	1 point	1 Point		
Week 6	1 point	1 Point		
Week 7	1 point	1 Point		
Week 8	1 point	1 Point		

17 points needed (minimum) to PASS the course. THERE IS NO FINAL EXAM FOR THIS COURSE!
This course is a PASS/FAIL course.

You will have until Wednesday, March 3, 2021 to complete ALL class requirements. Please see the Course Requirement Acknowledgement Form.

IX. Policy on absences

The policy on absences and tardiness will be the following: on the student's **second absence, THE STUDENT WILL BE ASSIGNED A FAILING GRADE, AND MUST REPEAT THE COURSE.** There are no excused/unexcused absences. You may only miss one class. If you miss more than one class, you will be assigned a failing grade. Students are expected to be in class on time, and to remain in class until class is dismissed. Students arriving late to

class are absent. Students leaving class early are absent. To be considered present, students must **actively participate** in the activities. Cell phones should be put on silent or turned off. If they are being used during class (virtual or face-to-face) an absence will be given.

Please be in class (virtual or face-to-face) and be actively participating in the class dialogue. If you are not in class from the beginning of class and stay until dismissed by the instructor, you will be counted absent. The following also constitutes as absent if we are in a virtual format: driving your car while class is in session, ordering food in a drive-through during class, logging in then turning your video off and then going to work. Please be respectful of the class time and utilize the timeframe for class engagement and active participation with the course topic or guest speaker.

X. Policy on academic dishonesty and academic misconduct

Academic dishonesty is defined as: Cheating on an examination, quiz, or homework assignment involves any of several categories of dishonest activity. Examples of this are: a) copying from the examination or quiz of another student, b) bringing into the classroom notes, messages, or crib sheets in any format which gives the student extra help on the exam or quiz, and which were not approved by the instructor of the class; c) obtaining advance copies of exams or quizzes by any means; d) hiring a substitute to take an exam or bribing any other individual to obtain exam or quiz questions; e) buying term papers from the Internet or any other source, and f) using the same paper to fulfill requirements in several classes without the consent of the professors teaching those classes. Plagiarism is also defined as academic dishonesty.

Academic misconduct concerns the student's classroom behavior. This includes the manner of interacting with the professor and other students in the class. For example, students disrupt the learning environment in a classroom through inappropriate behavior, such as, talking to students, unnecessary interruptions, attempting to monopolize the professor's attention, or being chronically late to class. Misconduct also covers verbal or nonverbal harassment and/or threats in relation to classes. Student behavior should not infringe on the rights of other students or faculty during a class.

Academic dishonesty and academic misconduct will be dealt with according to the Faculty Handbook.

XI. Course Content Tentative Topics Per Week

Week 1:

Wednesday, January 13 – Introduction, Where do I go from here? Web-Tour of Hull and Crabaugh, How to be a Successful Student: GRIT Assignment – Mr. Kelly.

Week 2:

Wednesday, January 20 – Mr. Kelly – Ross Pendergraft Library and Technology Center—Online Tools within the Ross Pendergraft Library and Technology Center – Sherry Tinerella, Public Services/Assistant Librarian.

Week 3:

Wednesday, January 27 – Curriculum Choices and Opportunities/Understanding the College Catalog – Dr. Rockie Pederson, Department Head for HPE/WS with WS Faculty members Dr. Randy Kirkpatrick, Dr. Gina Kraft, & Dr. Mike Waller.

Week 4:

Wednesday, February 3 – Professional Profile – with HPE Faculty members Professor Troy Norton, Dr. Rockie Pederson, Dr. Brett Stone and Dr. John O'Connor.

Week 5:

Wednesday, February 10 – APEX Center: University Tutoring Lab and Resources – with speaker TBA: Office of Student Services.

Week 6:

Wednesday, February 17 – HPEWS Club: Volunteer Opportunities within HPEWS Club: How to Get Involved – Executive Members of the HPEWS Club with Anthony Ross, a recent Arkansas Tech University HPE Graduate: PE Teacher/Soccer Coach at Dardanelle Primary School & Cathryn Bass, Center Valley Elementary School, Physical Education Specialist.

Week 7:

Wednesday, February 24 – Current and Future Career Opportunities in Wellness Opportunities w/Kyle Jones OT @ St. Mary's Regional Hospital, Accessing University Services and Resources, Financial Aid, Managing Your Finances – Niki Schwartz: Director of Student Aid,

Week 8:

Wednesday, March 3 – Fitness Testing: FitnessGram, Tech Fit, T Data, One Tech, Advising, Registering – Computer Services Representative – Mr. Kelly, Dr. Rockie Pederson, & Dr. John O'Connor.

Wednesday, March 3 is the last day of class for is class: PE 1201.

For Wednesday afternoon class PE 1201 the following dates apply:

Last day to add this course.....Thursday, January 14, 2021

**Drop with 100% tuition reimbursement.....Thursday, January 14, 2021

**Drop with 80% tuition reimbursement....Tuesday, January 19, 2021

****Last Day to drop with "W"Tuesday, February 23, 2021**

** Last night of class.....Wednesday, March 3, 2021

XII. Class Announcements & FYI's:

Class announcements will be used as the primary method of communication to notify you of any changes. Email may also be used as a form of communication. It is the student's responsibility to attend each class and to check your OneTech e-mail daily.

Student Needs Statement

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to notify the instructor, if they are comfortable in doing so. Community resources are available for students and can be found at the following webpage: <https://www.atu.edu/localresources/>

If a student finds they need more support, they are encouraged to contact the Office of the Vice President for Student Services (479-968-0238).

Be Aware:

Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.

The HPE/WS Department is under the umbrella of the COE -The College of Education. Each faculty/staff member is helping you to each become **Successful and Innovative Professionals**.

XIII: COVID-19 Considerations:

In order to help keep our ATU community safe, healthy, and to prevent the spread of COVID-19, students must follow several steps:

1. Masks must be worn by all students in public spaces, including classrooms and laboratories. Any student showing up for class without a mask will be given the opportunity to retrieve one. Entry into classrooms and laboratories without a mask will be prohibited.
2. All students are required to participate in a daily health self-screen. For students commuting to campus, please complete before coming to campus. For residential students, please complete each day before leaving your residence hall.
3. All students must maintain at least 6 feet of distance from every person present in all instructional spaces used in this course (classrooms, laboratories, etc.)
4. Any student who tests positive for COVID-19 is asked to self-report to the ATU Health and Wellness Center by calling (479) 968-0329 or sending e-mail to hwc@atu.edu. Doing so will allow the university to communicate directly with others who might have been exposed to the virus and take any appropriate cleaning and sanitizing measures.

Students are expected to abide by the above steps in accordance with the Student Handbook section on Classroom Behavior.

For more information about ATU COVID-19 policies, please refer to the following ATU guidance documents.

ATU Pandemic Frameworks (<https://www.atu.edu/docs/Pandemic%20Framework-2020.pdf>)

ATU COVID-19 Student Daily Testing (<https://www.atu.edu/pandemicrecovery/student-health-screening.php>)

SPING 2021 Volunteer Opportunities

Many volunteer opportunities are halted or prohibited this spring due to COVID-19 regulations. Here just simple helpful hints when you do get the opportunity to volunteer in the near future:

WHEN or IF you volunteer at events, you are doing so OUTSIDE of Arkansas Tech University classes; unless the instructor indicates otherwise. Additionally, you are presenting Arkansas TECH University and the HPE/WS Department; therefore, make the positive impression every time by being on time, being proactive to engage in the activity, and always remember to learn from the experience.

Always wear or have in your possession your TECH ID Card and Driver's License when volunteering with nearby schools. Always check-in at the office location of the schools before going inside to volunteer.

Once you have completed the volunteer opportunity, have the contact person write you a “thank you” note for volunteering. This can simple be a hand-written thank you note or a “thank-you” note can be emailed to you. These thank you notes will go into your Professional Profile.

When travelling to these volunteer events, please be safe in your mode of transportation. Be mindful of city and state laws as regards to texting, distracted driving, and speed limits within the schools zones and surrounding areas. Let’s BE Safe!

Please follow all COVID-19 regulations before-during and after volunteering.

Syllabus

PE 2513-MO 6 MT49 Responding to Emergencies : Comprehensive First Aid/CPR/AED

Instructor Information:

Instructor: Troy Norton:
Office: Hull 100
Phone: 479-968-0428
E-mail: tnorton@atu.edu
Academic Credit: Three hours
Prerequisites: None
Office Hours:

Monday Wednesday Friday (9 :00-10 :00 A.M.)

Tuesday Thursday (8 :00-9 :00A.M.) (10 :00-11 :00 A.M.)

Catalog Description:

Each semester, Standard and advanced course in first aid. This course includes CPR instruction.

Required Text:

Kramer 2014 American Red Cross First Aid Responding to Emergencies Comprehensive First Aid/CPR/AED Program

Course Description:

The course is designed to provide the knowledge and practical skills necessary to correctly assess and provide advanced first aid care. In this course, the students will develop skills to recognize the signs and symptoms of various illnesses and injuries.

Within a laboratory setting, the student is given the opportunity to utilize selected skills to provide proper treatment for specific incidents.

Justification/Rational for Course:

The justification for this course is to give the student the ability and knowledge to aid others that are in a health emergency and to also give the student knowledge of the legal ramifications of their actions.

Competencies:

The course is structured to ensure that the student will:

1. Explain how the emergency medical services (EMS) system works;
2. Describe his/her role as a citizen responder in the EMS system;
3. List the five common barriers to action that may prevent people from responding to emergencies;
4. Define the legal aspects of first aid care;
5. Identify major systems of the body and describe the primary functions of each
6. Demonstrate by practical example how to conduct a proper patient assessment including primary survey and a secondary survey (patient interview, vital signs, and head-to-toe exam);
7. list the emergency action steps;
8. Recognize the need for and correctly identify the proper sequence of performance for obstructed airway, and adult CPR care;
9. Demonstrate by practical example how to properly dress and bandage a wound;
10. Recognize the types of bleeding and describe the methods of bleeding control;
11. List signals of internal bleeding;
12. Recognize the signs and symptoms of burns and identify the proper treatment;
13. recognize the signs and symptoms of shock and identify the proper treatment;
14. Recognize the signs and symptoms of injuries to bones and joints and identify the proper treatment;
15. Demonstrate by practical example how to properly splint fractures/dislocations;
16. Recognize the signs and symptoms of specific medical emergencies (heart attack, diabetes, etc.) and identify the proper treatment;
17. Recognize the signs and symptoms of poisoning and identify the proper treatment;
18. Recognize the signs and symptoms of substance misuse and abuse and identify proper treatment;
19. Recognize the signs and symptoms of specific environmental emergencies (frostbite, heat stroke, etc.) and identify the proper treatment; and
20. Identify the proper emergency moves to be used in moving patients.

General Education objectives:

This course helps to meet the General Education goals as listed on page 79 of the current catalog. Specifically we will meet the following goal(s): Develop ethical perspectives knowledge and understanding of the Good Samaritan Law, 2. Communicate effectively lab experience/group exercise, 3. Think critically recognizing and responding to an emergency.

Educational Opportunities:

1. Lectures
2. Videos
3. Class participation in laboratory setting using practical skills.

Assessment Methods:

Evaluation:

Four Unit Tests	(300 points)
Practical Exams	(400 points)
Quizzes	(100 points)
Total:	(800- points)

Grading Scale:

90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
Below 59%	F

Certification for Adult CPR follows the guidelines set forth by the American Red Cross. To achieve ARC certification, the student must perform all skills satisfactorily and score at least 80% on the written exam. Certification for First Aid Responding to Emergencies requires that the student must perform all skills satisfactorily, be certified in CPR, and score at least 80% on the comprehensive final exam. Certification by the American Red Cross is an optional component of the course.

Policy on Absences, Cheating, and Plagiarism, Etc.

Attendance of students is expected for all lectures. Students are expected to exhibit appropriate conduct as outlined in the University policy regarding academic dishonesty/misconduct. The University's student rights policy will be followed. Students may file informal or formal complaints by following the academic grievance policies as outlined in the Student Handbook. **Attendance is expected. The student will receive 3 free Absences, on the fourth absence the student grade will be lowered one letter grade. On the 7th absence the students' grade will be lowered another letter grade. Absent number 8 you will be dropped from the class.**

Cell Phones:

Cell phones should be turned off or should be put on "silent" and put away when you are in class. Do not text or have your phone out during class. If the instructor sees you with your cell phone out during class that student will be ask to leave the class for that day.

Exams:

All exams and quizzes will be online for the semester unless something happens during the semester. You will have 24 hours to take the test. If you miss an exam for any reason without contacting the instructor, you will be assigned a grade of zero (0). If arrangements have been made with the instructor, the student will have three (3) school days to either make-up an exam or turn in homework assignments. All make-up exams will be given during the instructors listed office hours. All homework assignments must be typed and stapled in order to be accepted. If you are making up an exam you will be taking a different exam than what the class has taken.

Safety Statement:

Students are required to follow instructor's rules, comply with instruction given, and utilize correctly all safety equipment or procedures provided or indicated.

Course Content:**Unit I**

The Citizen Responder (Introduction; EMS system; Roles and Responsibilities; Traits; Barriers to Action)
Legal Aspects of Citizen Responder Care (Standard of Care; Immunity; Negligence; Abandonment; Consent; Refusal of Care; Patient Confidentiality)
Body Systems (Directional Terms; Body Regions; Body Cavities; Abdominal Quadrants; Body Systems)
Patient Assessment (Emergency Action Principles; Primary Survey; Secondary Survey)

Unit II

Breathing Emergencies (Obstructed Airway)
Cardiac Emergencies (CPR; Heart Attack)
Bleeding (Functions of Blood; Risk of Disease Transmission; Types of Blood Vessels; Types of Bleeding; External Bleeding; Internal Bleeding)

Unit III

Soft Tissue Injuries (Types of Injuries; Basic Emergency Care; Dressing and Bandaging; Specific Injuries)
Musculoskeletal Injuries (Skeletal System; Injuries to Bones and Joints; Injuries to the Extremities; Splinting; Injuries to the Skull, Spine, and Chest)

Unit IV

Medical Emergencies (Sudden Illness; Poisoning; Substance Abuse; Heat and Cold Exposure)

Unit V

Gaining Access to Patients and Moving Patients (Emergency and Nonemergency)

COVID-19

Classroom Behavior Each member of the Arkansas Tech University community is obliged to conduct her/himself in a non-disruptive manner in the classroom. If a student is being disruptive, the instructor will address the situation, discussing behavioral expectations moving forward, and emphasize possible consequences for failing to comply. If the disruptive behavior persists, the student may be suspended on an interim basis from the class. Instructors may report excessive and/or repeated disruptive behavior through the Procedures for Addressing Violations of Academic Integrity and Classroom Behavior. This process includes an appeals process student may use to challenge perceived violations or excessive penalties. Students who exhibit disruptive behavior may also be referred to the Department of Student Conduct (see Article III, Section C of the Arkansas Tech University Student

If a classroom incident constitutes an emergency (e.g., any immediate threat to life and/or property) and requires an immediate response from police, fire, or emergency medical services, please call 911.

COVID-19 Considerations:

In order to help keep our ATU community safe, healthy, and to prevent the spread of COVID-19, students must follow several steps:

1. Masks must be worn by all students in public spaces, including classrooms and laboratories. Any student showing up for class without a mask will be given the opportunity to retrieve one. Entry into classrooms and laboratories without a mask will be prohibited. Please refer to the guidance from CDC as to the proper use of cloth masks (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-gettingsick/how-to-wear-cloth-face-coverings.html>). Note that CDC does not recommend the use of a face shield in the place of a cloth mask (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-gettingsick/cloth-face-cover-guidance.html>).

2. All students are required to participate in a daily health self-screen (<https://www.atu.edu/pandemicrecovery/student-healthscreening.php>). For students commuting to campus, please complete before coming to campus. For residential students, please complete each day before leaving your residence hall. If you do not own a thermometer, please have your temperature taken at one of the temperature testing sites listed in the student health screening document and repeated below: • Department of Public Safety available beginning July 6th (716 N El Paso Avenue); Monday-Friday; 8am-5pm • Health and Wellness Center available beginning August 3rd (outdoor tent station by north entrance of Doc Bryan Student Services Center); Monday-Friday; 8am-5pm • University Commons Clubhouse available beginning August 10th; Monday-Friday; 8am-10pm and Sunday; 5pm-10pm

3. All students must maintain at least 6 feet of distance from every person present in all instructional spaces used in this course (classrooms, laboratories, etc.).

4. Any student who tests positive for COVID-19 is asked to self-report to the ATU Health and Wellness Center by calling (479) 968-0329 or sending email to hwc@atu.edu. Doing so will allow the university to communicate directly with others who might have been exposed to the virus and take any appropriate cleaning and sanitizing measures.

Students are expected to abide by the above steps per the Student Handbook section on Classroom Behavior.

For more information about ATU COVID-19 policies, please refer to the ATU Pandemic Framework (<https://www.atu.edu/pandemicrecovery/docs/Pandemic%20Framework2020.pdf>) as well as the University's Pandemic Recovery webpage (<https://www.atu.edu/pandemicrecovery/>).

If you have any questions, please do not hesitate to contact the Dean of your respective college. Thank you for your continued commitment to Arkansas Tech University.

PE 2653 Anatomy and Physiology

INSTRUCTOR INFORMATION

Name:
Office Hours:

Office:
Phone:
E-mail:

Academic Credit

3 Semester hours

Prerequisites

Biology 1014 with a "C" or higher.

Catalog Description

The structure and function of the human body with emphasis on the bodily systems important to teachers and practitioners of wellness, fitness, and physical education.

Note: A grade of "C" or better is required for Health and Physical Education majors.

Required Text

- VanPutte, C., Regan, J., Russo, A. *Seeley's Essentials of Anatomy and Physiology, 10th Ed.* McGraw Hill. (2019).

Bibliography (Supplemental Reading List)

- Marieb, E. & Hoehn, K. *Human Anatomy & Physiology* 9th ed. Pearson, 2012. ISBN-10: 0321743261
- Saladin, K. *Anatomy & Physiology: The Unity of Form and Function* 6th ed. McGraw-Hill, 2011. ISBN-10: 0073378259
- G. J. Tortora. *Introduction to the Human Body - The Essentials of Human Anatomy and Physiology*. Fourth Edition. Harper and Collins. 1997.
- F. Martini. *Fundamentals of Anatomy and Physiology*. Second Edition. Prentice Hall, 1992.
- J. W. Hole. Essentials of Human Anatomy and Physiology. Third Edition. Wm. C. Brown. 1989.
- E. N. Marieb. Human Anatomy and Physiology. Second Edition. Benjamin Cummins. 1992.
- E. P. Solomon and P. W. Davis. Human Anatomy and Physiology. Saunders College. 1983.

Justification for the Course

This course meets part of the sports science body of knowledge required by Society of Health and Physical Education (SHAPE) guidelines for students of physical education and wellness and sport – related leadership degree programs.

How the course meets the General Education objectives

This course addresses the general education objectives concerned with the application of scientific and quantitative reasoning and the understanding of wellness concepts by creating an understanding of the science of Anatomy and Physiology which serves as part of the body of knowledge for students of the discipline of personal health and wellness. Disease processes and their prevention are discussed.

PE 2653 Anatomy and Physiology

Course Description

This course is designed to develop within the prospective physical education professional, an understanding and knowledge of the anatomical and physiological aspects of the human organism. Those systems appropriate for understanding human within the activity setting are emphasized such as the skeletal, muscular, and cardiovascular systems.

Course Objectives/Competencies

The course is structured to ensure that the student will:

1. Develop knowledge and understanding of human bodily organization. (A & P defined; levels of org.;
2. directional terms; body cavities; homeostasis-parasympathetic, sympathetic changes);
3. Develop knowledge and understanding of the structure and function of the generalized cell. (Cell membrane, cytoplasm, organelles such as the nucleus, ribosomes, endoplasmic reticulum, etc.);
4. Acquire knowledge of bone development from the cellular level to adult ossification (bone growth and development intramembranous and endochondrial);
5. Gain an understanding of the anatomy of the human axial and appendicular skeleton;
6. Develop knowledge of the parts of bones which serve as biomechanical levers structures within the axial and appendicular skeleton;
7. Acquire knowledge of the characteristics, functions, and locations of joints within the body;
8. Develop knowledge of the purposes of the human muscle as an organ;
9. Acquire knowledge of the anatomical parts of muscle fibers and the muscle as an organ;
10. Develop an understanding of the physiochemical and physiological occurrences during muscle contraction;
11. Develop knowledge of the names of skeletal muscles;
12. Acquire knowledge of the actions possible by each of the musculoskeletal articulations;
13. Develop knowledge of the anatomy and functions of neural (nervous) tissue;
14. Develop knowledge of the structures of the heart;
15. Develop understanding of the cardiac cycle;
16. Understand the importance of the electrocardiogram;
17. Develop knowledge of the various types of blood vessels;
18. Understand why blood flows through various blood vessels;
19. Develop knowledge of blood pressure and its importance;
20. Develop an understanding of the pulmonary system;
21. Develop a knowledge of the organs of the respiratory system
22. Develop knowledge of the physiological changes as oxygen and carbon dioxide are exchanged
23. Develop knowledge of changes that occur to initiate gas exchange in the lungs, blood and cells
24. Develop a basic understanding of the endocrine system.

Course Content/Tentative course outline:

Please note: This syllabus is subject to change at the discretion of the instructor to accommodate instruction and/or student needs. It is the student's responsibility to maintain an updated course syllabus.

Test One

- A. Organization of the Human Body and Cells

Tests Two and Three

- B. Skeletal System
- C. Biomechanical Articulations

Tests Four

- D. Human Movement
- E. Human Musculature

Unit Five

- F. Cardiovascular System
- G. Pulmonary System
- H. Endocrine System

PE 2653 Anatomy and Physiology

Teaching Methods

Lecture, discussion, Cooperative Learning, Q&A, tests

Assessment Activities

	Points Possible	Grading Scale 546 – 605 = A 484 – 545 = B 424 – 483 = C 363 – 423 = D 0 – 362 = F
Activities		
Attendance Assignment	3	
Written Tests	350	
Unit 1	/50	
Unit 2	/50	
Unit 3	/50	
Unit 4	/50	
Unit 5	/50	
Comprehensive Final	/100	
Tickets To Class (TTCs)	50	
TTC 1	/5	
TTC 2	/5	
TTC 3	/5	
TTC 4	/5	
TTC 5	/5	
TTC 6	/5	
TTC 7	/5	
TTC 8	/5	
TTC 9	/5	
TTC 10	/5	
Online Quizzes	105	
Unit 1	/15	
Unit 2	/15	
Unit 3	/15	
Unit 4	/15	
Unit 5	/15	
Unit 6	/15	
Unit 7	/15	
Interactive Student Notebook	100	
Midterm Check	/50	
Final Check	/50	
Total Points Possible	605	

Description of assessment activities:

Written Tests (64% of course grade)

- Seven unit tests and one comprehensive final will be given during the course of the semester. Unit and final tests will be given using the Immediate Feedback Assessment Technique (IFAT). Tests will consist of multiple choice questions.

Ticket To Class (TTC) (7% of course grade)

- The TTC serves to prepare the student for successful completion of in class assignments. TTCs are based on the assigned readings and serve to focus the student's learning on the content. TTCs must be complete before class and turned in at the end of class.

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Online Quizzes (15% of course grade)

- ❑ Multiple choice quizzes over selected content in each unit will be given via Blackboard. Day and availability will be announced in class and stated on the tentative class schedule.

Interactive Student Notebook (14% of course grade)

- ❑ The purpose of the interactive notebook (ISN) is to enable you to be a creative, independent and reflective student throughout the semester. Interactive notebooks will be used for class notes as well as for other activities where you will be asked to express your own ideas and process and or apply the information and skills learned in this class. Notebooks will be prior to midterm and final grades.

ATTENDANCE POLICY

Attendance is recommended; students are expected to be in class to acquire understanding of course material and to develop knowledge of content through active engagement in class activities. Students arriving late to class or leaving class early will be recorded as absent.

The policy of the University in regard to class absences may be stated as the considered belief that regular class attendance is essential to the maximum growth and development of the student, and that students, in their own interest, are therefore responsible for attending all classes for which they are enrolled

- ★ Any student that accumulates three (3) absences will receive a grade of “D” and will be subject to dismissal from the course due to excessive absences.
- ★ Extenuating circumstances regarding family emergencies, illness, or other will be dealt with on an individual basis. Documentation may be requested for consideration.



CELL PHONE POLICY

As a member of the learning community, each student has a responsibility to other students who are members of the community. When cell phones or pagers ring and students respond in class or leave class to respond, it disrupts the class. Therefore, the use by students of cell phones, pagers, PDAs, or similar communication devices during class is prohibited. All such devices must be put in a silent (vibrate) mode and not be taken out during class. Exceptions to this policy may be granted at the discretion of the instructor.

To facilitate professional behavior during class, each time a cell phone is visible (whether in use or not) five (5) points will be deducted from the total points accumulated of each student.

POLICY ON ACADEMIC DISHONESTY AND ACADEMIC MISCONDUCT

Academic dishonesty is defined as: Cheating on an examination, quiz, or homework assignment involves any of several categories of dishonest activity. Examples of this are: a) copying from the examination or quiz of another student, b) bringing into the classroom notes, messages, or crib sheets in any format which gives the student extra help on the exam or quiz, and which were not approved by the instructor

PE 2653 Anatomy and Physiology

of the class; c) obtaining advance copies of exams or quizzes by any means; d) hiring a substitute to take an exam or bribing any other individual to obtain exam or quiz questions; e) buying term papers from the Internet or any other source, f) using the same paper to fulfill requirements in several classes without the consent of the professors teaching those classes, g) submitting another person's lesson plans and/or assignments, and h) providing another student with answers. Plagiarism is also defined as academic dishonesty.

Academic misconduct concerns the student's classroom behavior. This includes the manner of interacting with the professor and other students in the class. For example, students disrupt the learning environment in a classroom through inappropriate behavior, such as, talking to students, unnecessary interruptions, attempting to monopolize the professor's attention, or being chronically late to class. Misconduct also covers verbal or nonverbal harassment and/or threats in relation to classes. Student behavior should not infringe on the rights of other students or faculty during a class.

Academic dishonesty and academic misconduct will be dealt with according to the Faculty Handbook.

DISCRIMINATION STATEMENT

Arkansas Tech University does not discriminate on the basis of color, sex, sexual orientation, gender identity, race, age, national origin, religion, veteran status, genetic information, or disability in any of our practices, policies, or procedures. If you have experienced any form of discrimination or harassment, including sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the institution. If you report such an incident of misconduct to a faculty or staff member, they are required by law to notify Arkansas Tech University's Title IX Coordinator and share the basic fact of your experience. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus. For more information please visit: <http://www.atu.edu/titleix/index.php>.

Arkansas Tech University adheres to the requirements of the Americans with Disabilities Act in order to prevent barriers to academic accessibility. If you need an accommodation due to a disability, please contact the ATU Office of Disability Services, located in Doc Bryan Student Center, Suite 171, or visit <http://www.atu.edu/disabilities/index.php>.

STUDENT NEEDS STATEMENT

Any student who faces challenges securing food or housing and believes this may affect his/her performance in the course is urged to notify the instructor, if s/he is comfortable in doing so. Community resources are available for students and can be found at the following webpage:

<https://www.atu.edu/localresources/>. If a student finds s/he needs more support, s/he is encouraged to contact the Office of the Vice President for Student Services (479 968 0238).

FOOD INSECURITY

The Green and Gold Cupboard exists to fight hunger right here at home by providing healthy, nutritious food to all members of the Tech community, including students, faculty, and staff. Details on how to access this service can be found at: <https://www.atu.edu/foodpantry/>

PRIVACY & ACCESSIBILITY POLICIES

A comprehensive list of all Privacy and Accessibility policies for software and services on Arkansas Tech's Blackboard server can be found at: https://www.atu.edu/etech/privacy_accessibility.php. While this information is currently accurate, links and policies will change over time.

ARKANSAS TECH UNIVERSITY

RHYTHMIC AEROBICS PE 2861

INSTRUCTOR Sarah Kremers, AFAA, CPT
NASM, CES, FNS

OFFICE HOURS
By appointment

EMAIL skremers3@atu.edu

PREREQUISITES None

CATALOG DESCRIPTION

This course will include motor skills put to music, rope jumping, step aerobics, kickboxing, senior fitness, children's fitness, sport aerobics, sculpting, and aerobic dance activities.

REQUIRED TEXT No text required

REQUIRES COURSE STATEMENTS

Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.

STUDENT NEEDS STATEMENT

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to notify the instructor, if they are comfortable doing so.

Community resources are available for students and can be found at the following webpage:

<https://www.atu.edu/localresources/>

If a student finds they need more support, they are encouraged to contact the Office of the Vice President for Student Services (479-968-0238.)

This course is structured to ensure that the student will

1. have a knowledge and understanding of the practical principles involved in a variety of group fitness classes.
2. be able to take the knowledge from this class and apply it to increasing their fitness level and leading a healthier lifestyle.
3. be able to perform or demonstrate various motor skills indicative of aerobic dance movement such as walks, jumps, hopping, hamstring curls, knee lifts, etc.

4. have a knowledge and understanding of the training effect and that the benefits derived in cardiorespiratory endurance depend upon the frequency, intensity, and duration of the aerobic program.
5. have a knowledge and understanding of the significance and importance of monitoring heart rate.
6. have a comprehension of the execution of a group fitness class.
7. have a working knowledge of major muscle groups and where they are located.
8. be able to attend a group fitness class and know how to modify it according to their fitness needs.
9. have a working knowledge of the importance of warming up, cooling down, and the dos and don'ts involved in a group fitness class.
10. have a better understanding of the importance of the consistency of exercise in their lifestyle.

COURSE TOPICS

Students will be able to meet competencies through the following course topics:

1. Orientation and organization
2. Lectures--including information on muscle groups, training effect and heart rates, class composition, workout basics, safety information, modifications, and monitoring heart rate.
3. Basic skills will be taught with a variety of group fitness classes.
4. This course is taught as if you are training to become a Fitness Instructor and for the general information of group fitness principles. You will complete this course with a strong knowledge of fitness basics, a background in a variety of group fitness classes, and how to assess a fitness class/center. Your overall strength and cardiovascular condition should improve.

GENERAL EDUCATION GOALS

This course helps to meet the General Education goals listed on page 79 of the current catalog. Specifically, we will meet the following goal(s): Understanding Wellness Concepts. We will meet this goal by learning specifically how to do and participate in activities that improve cardiorespiratory fitness, muscular strength and endurance, and flexibility.

ASSESSMENT

Grades will be determined through a written exam, attendance, and participation.

- Two written exams will be given in this course. They will make up 27% of your final grade. The first test will be worth 100 points. The second will be worth 24 points.
- Attendance will make up 73% of your final grade. Each class will be worth 12 points for a total of 300 points. There will be 25 required classes in which you will have lecture and workouts (other than make-up days and welcome day.)

You will have the opportunity for two make-up classes if you have to miss class for ANY reason (either excused or unexcused.) This is because there is no other way to make up for missed class work. Excused absences mean that you have the opportunity to make them up, not that you just don't have to do anything. See schedule for marked make-up days.

- If you are absent the day of the test, you have one week to make it up. You cannot reschedule during your normal class. **You must contact me prior to being absent to schedule the test or you will receive a zero on the exam. Final exams have no make-ups.**
- You are required to participate to the best of your ability. I will not count you as present for the day if you do not do the best you can or are not exercising at all. No goofing off nor sitting and watching will be allowed.
- Modifications are shown for all activities to fit individual needs. You will NOT be graded for the kind of shape you are in currently. If you come to class, you must participate. If you cannot participate, take an absence and make it up on one of the make-up days.
- Tardiness disrupts the class. **If you are more than 10 minutes late, you will counted as absent.**
- You must be properly dressed for class, including footwear. Closed toe shoes are required in the fitness center. All SMWFC rules will be followed. **If you do not come to class properly dressed, you will be counted absent.**

JUSTIFICATION FOR THE COURSE

This course is justified in that it meets part of the sports science body of knowledge which is of need for those students of physical education and wellness and sport-related leadership requirements.

ACADEMIC DISHONESTY AND DISRUPTION

Attendance is expected. Refer to grading procedure. Students are expected to exhibit appropriate conduct as outlined in the University policy regarding academic dishonesty/misconduct. The University's student rights policy will be followed. Students may file informal or formal complaints by following the academic grievance policies as outlined in the Student Handbook. Leaving early is not allowed unless due to illness, in which case I need to know prior to you leaving so that I can get you assistance.

GENERAL CLASS INFORMATION

- Wear “workout” clothes that are easy to move in and that allow your skin to breathe. You will need a good supportive pair of shoes. A crosstraining or aerobic shoe is best.
- You will be expected to come dressed to work out EVERY class period. If you are sick or forget your clothes, you are absent. Do not come to class sick.
- Please bring a water bottle filled with water only. We have a water fountain, but you won’t want to wait in line and you will want more water than a fountain can deliver.
- Attendance will be taken in class.
- Save your absences for when you are REALLY sick. Improving your fitness level depends on coming to class consistently. If you miss a few classes, it will be difficult to keep up.
- Please feel free to use our dressing rooms and shower facilities if needed before or after class. Check in with the front desk EACH time you enter the facility for class.
- There will be no cell phones used during class. If you have to bring one with you, please turn it off. There is a great risk of any personal items, including phones, to be stepped on and damaged. We do not have room for excess items.
- Feel free to sing, scream, moan, and groan during class. Just keep moving and have fun!

COVID-19 Considerations

In order to help keep our ATU community safe, healthy, and to prevent the spread of COVID-19, students must follow several steps:

1. Masks must be worn by all students in public spaces, including classrooms and laboratories. Any student showing up for class without a mask will be given the opportunity to retrieve one. Entry into classrooms and laboratories without a mask will be prohibited. Please refer to the guidance from CDC as to the proper use of cloth masks (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wear-cloth-face-coverings.html>). Note that CDC does not recommend the use of a face shield in the place of a cloth mask (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html>).
2. All students are required to participate in a daily health self-screen (<https://www.atu.edu/pandemicrecovery/student-health-screening.php>). For students commuting to campus, please complete before coming to campus. For residential students, please complete each day before leaving your residence hall. If you do not own a thermometer, please have your temperature taken at one of the temperature testing sites listed in the student health screening document and repeated below:
 - Department of Public Safety available beginning July 6th (716 N El Paso Avenue); Monday-Friday; 8am-5pm
 - Health and Wellness Center available beginning August 3rd (outdoor tent station by north entrance of Doc Bryan Student Services Center); Monday-Friday; 8am-5pm
 - University Commons Clubhouse available beginning August 10th; Monday-Friday; 8am-10pm and Sunday; 5pm-10pm

3. All students must maintain at least 6 feet of distance from every person present in all instructional spaces used in this course (classrooms, laboratories, etc.).
4. Any student who tests positive for COVID-19 is asked to self-report to the ATU Health and Wellness Center by calling (479) 968-0329 or sending e-mail to hwc@atu.edu. Doing so will allow the university to communicate directly with others who might have been exposed to the virus and take any appropriate cleaning and sanitizing measures.

TENTATIVE SCHEDULE

(This is subject to change according to the needs of the class or instructor. This does not change the requirements of the course, just the order in which we may do them.)

	TUESDAYS	THURSDAYS
Week 1	1/12 Welcome	1/14 Welcome
Week 2	1/19 Lecture 1, Exercise Principles	1/21 Lecture 2, Cardio training
Week 3	1/26 Lecture 3, Strength and Endurance	1/28 Lecture 4, Flexibility
Week 4	2/2 Test	2/4 Basic Step
Week 5	2/9 Drums Alive	2/11 Cycling
Week 6	2/16 Power Pump	2/18 Cardio Pump
Week 7	2/23 Circuit	2/25 Barre
Week 8	3/2 Tabata	3/4 Restorative Stretch
Week 9	3/9 Senior Strength	3/11 Senior Stretch
Week 10	3/16 Pilates	3/18 Make-up Day
Week 11	3/22 Spring Break	3/25 Spring Break
Week 12	3/30 Make-up Day	4/1 Step & HIIT
Week 13	4/6 Boot Camp	4/8 Cardio Combat
Week 14	4/13 Basic Zumba	4/15 Interval Training
Week 15	4/20 Yoga	4/22 Yoga for Relaxation
Week 16	FINAL is scheduled for Thursday, 4/29 at 1pm.	

SYLLABUS

Course Number: PE 3573

Course Title: Prevention & Care of Athletic Injuries

Instructor: Jim McSweeney, MS, ATC/L

Office: Hull Athletic Training Room 128

Office Hours: M-F: By Appointment only

Phone Number: 479.968.0642

Email Address: jmcsweeney@atu.edu

Academic Credit: 3 hours

Prerequisites: PE 2563 & 3663

Catalog Description:

Development of techniques in prevention and treatment of athletic injuries.

Required Text: Johnson, Haskvitz and Brehm. *Applied Sports Medicine for Coaches* (Philadelphia, PA: Lippincott Williams & Wilkins, 2009)

Course Description:

Prevention and care of athletic injuries provides students the practical information on preventing, evaluating and immediate care for injuries occurring during athletics or activities. Emphasis is placed on preventing injuries, which mandates that prospective physical education teachers, coaches and athletic trainees have an understanding of conditioning and fitness, fundamental motor skills- running, throwing, jumping, etc., and how and why injuries occur. Procedures and knowledge to assess and evaluate injuries, including human movement from an anatomical perspective and biomechanics are covered. Immediate care of all types of injuries is reviewed. Rehabilitation programs and day to day management of injuries are discussed and constructed.

Justification/ Rationale for course:

This course is designed to provide the student with content knowledge as well as hands-on experience needed to provide basic skills in assessing and caring for athletic injuries and medical situations that they might encounter when they become coaches and physical education instructors.

General Education Objectives:

The general education component is the common requirement of all baccalaureate students at Arkansas Tech University. The knowledge and skills acquired in the general education component enable students to analyze problems, to arrive at intelligent conclusions and to make reasoned choices in their professional and personal lives. A well-rounded, liberal education should increase the choices available to Arkansas Tech University's graduates, thereby improving the quality of their lives and the lives of those whom they influence. This course meets general education objectives #1, #3 and #10.

Bibliography: Perrin. *Athletic taping and bracing*, 2nd ed., (Champaign, IL: Human Kinetics, 2005)

Andrews, et al., *Physical Rehabilitation of the Injured Athlete*, 3rd ed., (Saunders-Elsevier, 2004)

Competencies:

The course is structured to ensure that the student will:

1. Understand the historical foundations of athletic training;
2. Be able to differentiate between the roles of the coach, athletic trainer and the team physician;
3. Know the major legal concerns of the coach and athletic trainer in terms of sports injuries and how negligence can be avoided;
4. To describe the value of specific conditioning activities in injury prevention, including flexibility, strength development and endurance;
5. Demonstrate the ability to accomplish protective taping and wrapping;
6. Demonstrate a knowledge and understanding of injury producing mechanisms and biomechanics;
7. Identify the components and major anatomical structures that are commonly injured in activities;
8. Be able to evaluate injuries, provide immediate care and monitor a rehabilitation program;
9. Understand and appreciate the importance of the factors that contribute to personal health and wellness.

Course Requirement:

1. Assigned Reading: Text; Johnson, Haskvitz and Brehm. *Applied Sports Medicine for Coaches*(Philadelphia, PA: Lippincott Williams & Wilkins, 2009)
2. Discussion Assignments
3. Taping Assignments
4. Examinations/Quizzes, etc.: Chapter Quizzes, (3) written tests containing true/false, multiple choice, matching and short answer essay. (1) taping final and (1) written final.
5. Presentation: Research of a selected injury or injuries.

Policy on Absence, Cheating and Plagiarism:

The requirement for class participation is taking an active role in your learning process. NOTE: Your grade will be lowered one letter for missing more than four classes. If you are caught cheating, you will receive a zero for that test and I will place a letter on file with the office of Academic Affairs indicating that you cheated on an exam.

Course Evaluation: (subject to change)

Tests (3 @ 100points)	300 Points
Taping Assignments/Videos	260
Presentation	100
Homework Assignments (Chapter Quizzes)	205
Taping Final	300
Discussion Posts	130
Written Comprehensive Final	100
Attendance (N/A for Web)	<u>0</u>
Total	1395 Points

Grade Categories:	90-100% = A
	80-89% = B
	70-79% = C
	60-69% = D
	0-59% = F

PE 3661: Laboratory Experiences in Anatomy/Physiology and Kinesiology

Instructor: Lisa Crider

Phone: 501-691-0763

Email: lcriders2@atu.edu

Office Hours: By appointment

Class Location: Hull 135 / 119

Required textbook:

Beam, W.C. and Adams, G.M. (2019). Exercise Physiology: Laboratory Manual, 8th ed., Champaign, IL, McGraw Hill.
ISBN-13: 978-1-260-13136-9

Additional Materials:

Calculator & Internet Access

Prerequisites:

PE 2653

Catalog Description

The Laboratory experience supplement Anatomy/Physiology and Kinesiology by providing practical experiences which enable student to bridge the gap between theory and practice.

Course Description:

This course is designed to give the student of physical education opportunities to use the knowledge gleaned from this course in Anatomy/Physiology and Kinesiology. Emphasis is on utilization of knowledge but, in a greater sense, is on development of skill in analysis and practice.

Justification for the Course:

This course is justified in that it provides part of the sports science body of knowledge based on experiences in the Human Performance Laboratory. For those students of physical education, it meets wellness and sports leadership requirements of such a course help to meet the guidelines of the Society for Health and Physical Education (SHAPE), which is the certifying organization for physical education.

Course and the General Education Guidelines

This course meets guidelines #10 in that it is directed to creating an understanding of anatomy and physiology, as well as kinesiology, biomechanics, and motor learning, which serves as part of the body of knowledge for students of the discipline of personal health and wellness.

Competencies:

1. Develop and understanding of the nature of the human performance laboratory, the equipment found therein, and its use to advance the concepts of physiology and kinesiology related to human movement.
2. Relate changes in selected muscle groups using electromyographic (EMG) instrumentation.
3. Relate the EMG changes to specific movements typical of physical education settings while considering varying muscle load conditions.
4. Prepare and experience qualitative and quantitative measurements of various musculoskeletal articulations using the BIODEX.
5. Develop and understanding of the quadriceps to hamstring muscle group ratios as they relate to knee joint articulation safety.
6. Become familiar with various work inducement equipment used in the lab setting such as the bicycle ergometer.
7. Observe and experience changes in ventilation during varying intensities of exercise.
8. Understand, observe, and become proficient in measuring cardiovascular adjustments to exercise both at low and high intensities while recording the electrocardiographic changes and blood pressure variations.
9. Become acquainted with and experience testing procedures used to measure body composition such as underwater weighing, skinfolds, bioelectrical impedance, and infaredinteractance (FUTREX).

Class Format:

This course has some lecture components, but it is intended to primarily be a laboratory experience. Please dress for activity.

Attendance:

University policy states:

“Regular class attendance is considered essential if students are to receive maximum benefit from any course. Control of class attendance is vested in the teacher, who has the responsibility of defining early in each course his/her standards and procedure. A student accumulating an excessive number of unjustifiable absences in a course may be dropped from the course by the instructor with a grade of “FE”. A student who is dropped from three courses in a semester for unsatisfactory class attendance may be immediately suspended.”

Regular attendance is expected. This is an interactive laboratory class which experiences cannot be easily replaced. Students who miss classes risk losing participation points in the class.

Academic Integrity:

Plagiarism or cheating will not be tolerated. Unless permitted to work in groups, all assignments must be completed individually. The university policy for academic dishonesty will be followed. The penalty for academic dishonesty may range from failing the assignment to failing the course. Additional resources on academic integrity may be found at <https://www.atu.edu/academic-integrity/>.

Grading:

Group lab reports	10 at 15 points each	150 points
Notebook	4 points for 10 lab reports that you chose to include.	40 points

Total Points

190 points

Grading Scale

90-100%	A
80-89%	B
70-79%	C
60-69%	D
<60%	F

Late Work Policy:

Any lab report not submitted to Blackboard by the due date will be deducted 50%. All work must be submitted within one week of the due date or the student will lose the grade for that report.

Plagiarism Policy

The first lab report submitted to blackboard with an unacceptable level of similarity may be rewritten and resubmitted for up to half credit. All resubmissions must be completed one week after the original assignment was due. Any work submitted after that time will not be graded.

Any following reposts with an unacceptable level of similarity will receive a grade of "0".

Unacceptable similarity is defined as overall similarity of greater than %25 similar or a conglomerate of sentences that is greater than 10% similar.

Assignments Descriptions**Group Lab Report**

The lab write-up should follow the format of a research article with the following sections.

Introduction: This section should introduce the topic being studied and provide basic background information about why this topic is important. Introduce the tests that are being performed. Also, be sure to address the questions "Why is this important to measure or to know?" or "What is the Purpose of this lab."

Methods: This section should provide a concise set of steps that were used to collect the data. Be sure to be detailed enough that an outsider could follow the steps and replicate the protocol. Be advised, Calculated data is still data. Do not omit any data that you do not feel fits your idea of how the study should have turned out. Additionally, include the equations that were used to calculate the data. Use this sections numbers in your results section.

Results consist of a listing of the data collected during the lab. Tables may be used to introduce the data to the reader. BE SURE TO INCLUDE UNITS on your data.

Discussion should include a summary of the things learned from the lab activity and should provide some conclusion to the paper. In addition, the discussion should address all questions or points provided in class.

All lab reports are to be typed, double spaced with one-inch margins. Include a cover page with the name of the lab reports, the class information, and the names of all members of your group. Write with a professional style, omitting contraction and using third person. Use past tense since all data will have been collected in the past. Use proper citations throughout the paper, and include a reference page.

For each group lab report, you must submit the portion on which you worked to blackboard as evidence of your contribution. This portion may be in draft form and is only used to verify that you contributed to the group effort. If this individual submission is missing, you will receive a “0” for the lab report.

All lab reports and individual work verification will be submitted via blackboard.

Labs will be graded based on the following:

Component	Sub-component	Points possible
Introduction	Introduce concepts	1
	Introduce tests	1
	Describe Purpose	1
Methods	Steps by Step Instructions	2
Results	Data Tables	1
	Include correct data	1
	Subjects not identified	1
Discussion	Address all points in lab Document	2
	Compare to the Normative tables	2
Grammar and Writing Style		3
Total		15

Notebook:

Include a copy of each graded lab report. Provide a personal response to each lab. Include a list of any corrections or changes you would have made to the report, if given a chance, along with any alterations you would make to the lab, if given a chance. It may be necessary to submit the notebook electronically due to the current circumstances.

It is in your best interest to generate the personal response as soon as graded labs are posted in Blackboard.

Each lab report included in the notebook will be graded on the following scale:

Inclusion: 1 point

Personal Response: 1 point

Corrections/changes: 1 point

Quality/thoughtfulness of changes: 1 point

Tentative Schedule Date Topic and Readings Assignment

Date	Class Activity	What's Due
January 12/14	Introduction & Article Review Assignment	
January 18/20	Resting and Exercise Blood Pressure	Article Review Assignment
January 25/27	Electrocardiography	BP Report
February 1/3	Body Composition	ECG Report
February 8/10	continued	
February 15/17	Maximal Oxygen Consumption	Body Comp Report
February 22/24	continued	
March 1/3	Pulmonary Function (Spirometry)	Max O2 Report
March 8/10	Muscle Contraction and EMG Analysis	Pulmonary Report
March 15/17	Comparison of Quadriceps to Hamstring Muscle Ratios	EMG Report
March 22	SPRING BREAK	
March 29/31	Muscle Fiber Type	Quad/Hamstring Report
April 5/7	Flexibility	Muscle Fiber Type Report
April 12/14	Balance	Flexibility Report
April 19/21		Balance Report
April 26th	Reading day	Notebook Due no later than the end of the final exam window

Bibliography:

Clarys, J. P., & Cabri, J. (1993). Electromyography and the study of sports movements: a review. *Journal of Sports Sciences*, 11(5), 379–448. <http://doi.org/10.1080/02640419308730010>*

Haff, G. G., & Dumke, C. (2012). *Laboratory Manual for Exercise Physiology*. Champaign, IL: Human Kinetics.

Konrad, P. (2006). *The ABC of EMG: A Practical Introduction to Kinesiological Electromyography*. Scottsdale, AZ: Noraxon INC. USA.

Pintauro, S. J. (1998, August 24). Underwater weighing: an interactive tutorial. Retrieved from <http://nutrition.uvm.edu/bodycomp/uww/>.*

The professor reserves the right to modify the course at any time. Changes to the syllabus will be made by way of in class announcements as well as Blackboard announcements. No change will be instituted with the intention of penalizing students.

Addenda:

COVID-19 Considerations

In order to help keep our ATU community safe, healthy, and to prevent the spread of COVID-19, students must follow several steps:

1. Masks must be worn by all students in public spaces, including classrooms and laboratories. Any student showing up for class without a mask will be given the opportunity to retrieve one. Entry into classrooms and laboratories without a mask will be prohibited. Please refer to the guidance from CDC as to the proper use of cloth masks (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wear-cloth-face-coverings.html>). Note that CDC does not recommend the use of a face shield in the place of a cloth mask

(<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-coverguidance.html>).

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3. All students must maintain at least 6 feet of distance from every person present in all instructional spaces used in this course (classrooms, laboratories, etc.).

4. Any student who tests positive for COVID-19 is asked to self-report to the ATU Health and Wellness Center by calling (479) 968-0329 or sending e-mail to hwc@atu.edu. Doing so will allow the university to communicate directly with others who might have been exposed to the virus and take any appropriate cleaning and sanitizing measures.

Students are expected to abide by the above steps in accordance with the Student Handbook section on Classroom Behavior.

For more information about ATU COVID-19 policies, please refer to the ATU Pandemic Framework

(<https://www.atu.edu/pandemicrecovery/docs/Pandemic%20Framework-2020.pdf>) as well as the

University's Pandemic Recovery webpage

(<https://www.atu.edu/pandemicrecovery/>).

Privacy & Accessibility Policies: A comprehensive list of all Privacy and Accessibility policies for software and services on Arkansas Tech's Blackboard server can be found at: https://www.atu.edu/etech/privacy_accessibility.php. While this information is currently accurate, links and policies will change over time.

Food Insecurity: The Green and Gold Cupboard exists to fight hunger right here at home by providing healthy, nutritious food to all members of the Tech community, including students, faculty, and staff. Details on how to access this service can be found at:

<https://www.atu.edu/foodpantry/>

Safety Statement: Students are required to follow instructor rules, comply with instructions given, and correctly utilize all safety equipment or procedures provided or indicated.

Title IX: Arkansas Tech University does not discriminate on the basis of color, sex, sexual orientation, gender identity, race, age, national origin, religion, veteran status, genetic information, or disability in any of our practices, policies, or procedures. If you have experienced any form of discrimination or harassment, including sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the institution. If you report such an incident of misconduct to a faculty or staff member, they are required by law to notify Arkansas Tech University's Title IX Coordinator and share the basic fact of your experience. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus. For more information please visit: <http://www.atu.edu/titleix/index.php>.

Arkansas Tech University adheres to the requirements of the Americans with Disabilities Act in order to prevent barriers to academic accessibility. If you need an accommodation due to a

disability, please contact the ATU Office of Disability Services, located in Doc Bryan Student Center, Suite 171, or visit <http://www.atu.edu/disabilities/index.php>.

Recommended Syllabus Statement: Arkansas Tech University does not discriminate on the basis of color, sex, sexual orientation, gender identity, race, age, national origin, religion, veteran status, genetic information, or disability in any of our practices, policies, or procedures. If you have experienced any form of discrimination or harassment, including sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the institution. If you report such an incident of misconduct to a faculty or staff member, they are required by law to notify Arkansas Tech University's Title IX Coordinator and share the basic fact of your experience. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus. For more information please visit: <http://www.atu.edu/titleix/index.php>.

Arkansas Tech University adheres to the requirements of the Americans with Disabilities Act in order to prevent barriers to academic accessibility. If you need an accommodation due to a disability, please contact the ATU Office of Disability Services, located in Doc Bryan Student Center, Suite 171, or visit <http://www.atu.edu/disabilities/index.php>.

Course Syllabus

PE 3663 KINESIOLOGY (3)

Prerequisites: PE 2653 -Students will not be allowed to take the course if the required prerequisites have not been completed.

Arkansas Tech University
Department of Health and Physical Education
Dr. Michael Waller USAW-L2, CSCS*D, NSCA-CPT*D, FNSCA
Phone: 479-964-0526
E-mail: mwaller3@atu.edu
Office Hours: M,W,F 10am – 12pm; or by Appointment
My door is always open, unless I am meeting with another student.

COURSE DESCRIPTION

The course is concerned with the facts, concepts, and principles of kinesiology which are valid for human motor performance, whether in the common activities of daily living, in recreational and competitive sports, in therapy and orthopedics, in rehabilitation and adapted physical education, in dance and drama, in fitness and training programs, and in the general, the field of movement. Emphasis is placed on the development of knowledge about the science of human movement as well as the acquisition of skill in the analysis of movement typical of human movement environments.

COMPETENCIES The course is structured to ensure that the student will:

1. Describe the history of kinesiology/biomechanics from Aristotle to the present.
2. Describe and apply the concepts and laws developed by individuals from Aristotle to the present.
3. Describe the human skeletal framework and its movements.
4. Describe skeletal muscle structure, function, and coordination.
5. Describe the neuromuscular basis of human motion.
6. Describe, identify, and/or list the articulations of the upper extremity (shoulder girdle, shoulder, elbow, forearm, wrist, hand, and fingers).
7. Identify and describe the location and functions of the muscles of the upper extremity.
8. Describe, identify, and/or list the lever systems typical of the articulations of the upper extremity including the fulcrum, force arm, resistance arm, point of force, resistance, and line of pull.
9. Describe, identify, and/or list the movements of the articulations of the upper extremity as they are viewed mathematically and according to planes and axes.
10. Describe the movements of the articulations of the upper extremity.
11. Identify the structure, functions, and movements of the articulations of the lower extremity (hip, knee, ankle, and foot).
12. Describe and identify the muscles of the lower extremity.
13. Describe, identify, and/or list the lever systems typical of the articulations of the lower extremity including the fulcrum, force arm, resistance, arm, point of force, resistance, and line of pull.
14. Describe, identify, and/or list the movements of the articulations of the lower extremity as they are viewed mathematically and according to planes and axes.
15. Define terminology typical of biomechanics such as mechanics, biomechanics, kinematics, kinetics, statics, dynamics and how each relates to biomechanical study.

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16. Define, convert, and apply English and metric system units of measurement employed in biomechanics.
17. Describe and/or relate Newton's laws as they apply to linear motion, including the laws of inertia, acceleration, and momentum.
18. Define, describe, apply, and/or identify terms such as eccentric force, torque, force, force arm, resistance, resistance arm, biomechanical fulcrums and levers in a biomechanical sense.
19. Relate speed, range of motion, and mechanical advantage to the properties of given lever systems.
20. Describe, identify, and/or apply the laws of Newton as they relate to rotary motion.
21. Define the term center of gravity, and explain the basis for its location in the human body.
22. State the principles of stability and their relationship to equilibrium.
23. Apply the major components of a biomechanical analysis.

CATALOG DESCRIPTION

Study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency and the influence of growth and development upon motor performance.

SHAPE Standards

Competencies 1-46 provide evidence of meeting SHAPE Outcome 1.1, "Describe and apply physiological and biomechanical concepts related to skillful movement, physical activity and fitness." In addition to Outcome 1.1, Competency 47 provides evidence of meeting SHAPE Outcome 1.5, "Analyze and correct critical elements of motor skills and performance concepts."

General Education Guidelines: Not applicable

JUSTIFICATION/RATIONALE FOR COURSE

This course will aid students in their ability to provide movement opportunities to personas in a wide variety of activity settings. By obtaining the knowledge and ability to analyze and describe movement, students will develop their skills in providing appropriate feedback and safe learning/practice/training environments to the movers they are working with.

REQUIRED TEXTBOOK

Floyd, R.T. Manual of Structural Kinesiology, 21st Ed. McGraw Hill, 2021. ISBN10: 1260237753; ISBN13: 9781260237757

"Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated."

COURSE PROCEDURES AND EXPECTATIONS

1) Professional job expectations include the fact that you will complete ALL work "on time." This course should be treated the same, as it is a direct link to your future professional success.

Course Syllabus

- 2) I expect you to work hard every day and I expect you to respect and help each other during the course.
- 3) Athletic apparel should be worn during gymnasium and weight-room sessions. This
- 4) You will need access to a computer, the web, and a word processing program for course assignments.

ALL WRITING ASSIGNMENTS: For credit, assignments must be typed, Times New Roman font, double-spaced, 12-point font size, and in APA format reference section and in-text citations. In addition, assignments should be clearly typed, grammatically correct, and free from spelling errors. **NO LATE ASSIGNMENTS WILL BE ACCEPTED.** Exceptions will be made on an individual basis, and only with documented medical emergencies and/or in accordance with University excused absence policies. Assignments are due at the **beginning** of the class or at the set due date/time and will not be accepted as email attachments unless otherwise approved in advance. Late assignments (i.e., an assignment is late if it is turned in after class has begun on that day or after the due date) will only be accepted under unusual circumstances* and if the instructor is notified in a prompt manner. If the instructor is **NOT** notified of such circumstances in a timely manner, the student will receive a “0” grade for the assignment.

Assignments must reflect original work. Although problem-solving in groups is recommended, students may not turn in assignments that are identical to one another. Assignments turned in by students that have large volumes of information that are identical to each other constitutes a violation of the Student Code, and will receive no credit. (See PLAGIARISM Section in ATU Student Handbook)

Students are responsible for knowing the registration, drop and withdrawal dates for the semester.

*Examples of unusual circumstances include a death in the *immediate* family, illness that requires medical treatment (documentation will be requested) or an emergency that your attention is required. Computer and/or printer error on the day an assignment is due is NOT considered an unusual circumstance. University-sponsored trips and/or functions are considered excused absences.

STUDENT RESPONSIBILITIES

- 1) Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.
- 2) Respect for the in-class members and the professor. **All electronic communications devices including cell phones will be placed in a designated area or will be turned off during class and placed in your bag (See CELL PHONE / I-PHONE POLICY).** Students who are texting, playing games, sleeping or being disruptive distract those who are trying to listen and participate, will be dismissed from the course and counted as unexcused absence. If you are tired or feel the need to use your phone leave the classroom and return when you are finished. It will be your responsibility to ask your classmates to assist you with the material missed.
- 3) During any activity portion of the course, students are expected to use respectful language and support their classmates regardless of size, shape or abilities.
- 4) Dress appropriately for the practical portion of class. For your safety and respect for others, please wear modest, comfortable clothing. Shoes, preferably tennis shoes, must be worn at all times. Professional attire is mandatory when working with clients and examples of professional attire is warm-

Course Syllabus

up pants, clean shorts, and collared shirts. If profane or clothing that is not preapproved, then the student will lose a full letter grade for the hands-on portion of the course.

5) None of the information provided in lecture or discussion is meant to be offensive or discriminatory. Some issues may be sensitive for you personally, but the discussion is not intended to single out anyone. *** If you have any condition that requires special accommodations in testing or class structure, please advise the instructor at the beginning of the semester so that appropriate action can be taken. ***

PLAGIARISM

Plagiarism is the presenting of others' ideas as if they were your own. When you write an essay, create a project, do a project, or create anything original, it is assumed that all the work, except for that which is attributed to another author or creator is your own work. Be aware that word-for-word copying is not the only form of plagiarism. ***Plagiarism and academic dishonesty will be reported and investigated, and will result in not less than a 0 for the assignment and could result in automatic failure of the course.***

Plagiarism is considered a serious academic offense and may take the following forms:

- 1) Copying word-for-word from another source and not giving that source credit.
- 2) Cutting and pasting from an Internet or database source without giving that source credit.
- 3) Paraphrasing the work of another and not giving that source credit.
- 4) Adopting a particularly apt phrase as your own.
- 5) Reproducing any published or copyrighted artwork, both fine and commercial.
- 6) Digitally duplicating or downloading any copyrighted software, programs or files.
- 7) Paraphrasing another's line of thinking in the development of a topic as your own.
- 8) Receiving excessive help from a friend or elsewhere, or using another project as your own.
- 9) Insufficient or omitting information for references

[Adapted from the Modern Language Association's MLA Handbook for Writers of Research Papers. New York: MLA, 1995: 26.]

Academic Dishonesty. Dishonesty of any kind with respect to examination or course assignments shall be considered cheating. The penalty for academic dishonesty shall be "0" points for all related material and assignments related to the incident.

ATTENDANCE POLICY:

University Policy states: "Regular class attendance is considered essential if students are to receive maximum benefit from any course. Control of class attendance is vested in the teacher, who has the responsibility of defining early in each course his/her standards and procedures. A student accumulating an excessive number of unjustifiable absences in a course may be dropped from the course by the instructor with a grade of 'F.' A student who is dropped from three courses in a semester for unsatisfactory class attendance may be immediately suspended."

1) Class Attendance and Participation. **Attendance is required (See University Policy)**, and there are very few good excuses for being absent. If you are going to be absent, make every effort to contact the instructor beforehand. Absences are more likely to be excused if you have proof of the excuse from medical provider.

Course Syllabus

2) Missed in-class assignments or exams for excused absences during the semester will need to be made up based on the instructor's availability. These make-ups will occur within 2 weeks upon the student's return to class.

3) All quizzes will be given at the beginning of class to ascertain attendance and reinforce learning. Quizzes will not always be given but if a quiz is performed, no late or make-up quizzes will be given.

More than 3 unexcused absences will result in a full grade deduction from your final grade for each additional offense. Four unexcused absences = 1 grade deduction, 5 unexcused absences = 2 grade deductions, etc. This policy will be strictly enforced!

CELL PHONE / I-PHONE POLICY

Students must silent all **cell phones, i-phones, i-watches, and any other form of communication device** while in class and place them in the designated area. If you are seen using these devices you will be asked to leave the classroom, 5 points deducted from overall points, and will be counted as an absence. Computer laptops and tablets will be allowed based on the instructor's discretion and if these are used for purposes other than the current class, entertainment or anything unrelated to the current class you will be asked to leave the classroom and will be counted as absent.

Title IX of the Education Amendments of 1972 prohibits sex discrimination in educational programs and activities.

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

- 20 U.S.C. § 1681 & C.F.R. Part 106

Sexual misconduct constitutes sexual discrimination and is prohibited by Title IX.

Sexual misconduct is any sexual act which violates the criminal laws of the State of Arkansas or laws of the United States including but not limited to sexual assault (non-consensual sexual contact or intercourse), domestic violence, dating violence, stalking, and sexual exploitation.

The Title IX Coordinator oversees the university's compliance with Title IX of the Education Amendments of 1972. The Title IX Coordinator works with university administration, departments, students, faculty, staff, campus police and other support services to ensure that university policies and programs foster a campus community free of illegal gender discrimination and sexual violence.

- Amy N. Pennington
- Associate Vice President/Dean of Students and Title IX Coordinator
- 233 Doc Bryan Student Services Center
- 1605 Coliseum Drive
- Russellville, AR 72801
- (479) 968-0407
- apennington@atu.edu

TRIO – STUDENT SUPPORT SERVICES

“Student Support Services (SSS) is all about student achievement and success. Our goal is to help you succeed at Arkansas Tech University, help you attain graduation with a bachelor's degree, and gain the necessary skills to either enter the work force or enter graduate or professional school.”

- Student Support Services

Course Syllabus

- Brown Hall
- 105 West O Street, Suite 345
- Russellville, AR 72801
- Phone: (479) 880-4172
- Fax: (479) 880-4239
- trio.sss@atu.edu

Grading Scale (%)

Grading is based on the acceptable completion of quizzes, laboratories, exams and the analysis all of which contribute to the accumulation of total points.

100%-90% = A 89%-80% = B 79%-70% = C 69%-60% = D <59% = F

Final grade will be cumulative on all components of the class.

COURSE INFORMATION

Check your email and Blackboard™ daily and weekly for announcements, assignments and additional information.

Final grade will be cumulative on all components of the class.

Please note that I do not always post quizzes, in-class assignments or attendance.

COURSE OUTLINE

- I. Skeletal & Neuromuscular system; Movement Analysis (CH: 1-2)**
 - A. Skeletal & Neuromuscular system; Movement Analysis
 - B. Neuromuscular Structure & Function, Muscular Actions
 - C. Reflexes, Proprioceptors, Sensory Receptors
 - D. Training and Sport Performance Influences
 1. Exam 1
- II. Lower Extremity & Trunk Muscles (CH: 8-11)**
 - A. Ankle & Foot: Gastrocnemius, Soleus, Peroneus Longus, etc.
 - B. Knee: Rectus Femoris, Biceps Femoris Long & Short Heads, etc.
 - C. Hip: Rectus Femoris, Gluteus Maximus, Iliopsoas, Biceps Femoris Long, etc.
 - D. Trunk: Erector Spinae, Rectus Abdominis, External Oblique, etc.
 - E. Exercises and Associated Sport Movements
 1. Exam 2
- III. Upper Extremity and Trunk Muscles (CH: 4-7)**
 - A. Glenohumeral: Deltoid (3-heads), Supraspinatus, Pectoralis Major, etc.
 - B. Scapulothoracic: Rhomboids, Trapezius (4-regions), Levator Scapulae, etc.
 - C. Elbow: Biceps Brachii, Triceps Brachii, Brachioradialis, etc.
 - D. Forearm & Wrist: Pronator Teres, Supinator, Extensor Digitorum, etc.
 - E. Exercises and Associated Sport Movements
 1. Exam 3
- IV. Kinematics & Kinetics (CH 3)**
 - A. Linear Kinematics & Kinetics
 - B. Angular Kinematics & Kinetics
 - C. Posture & Balance
 - D. Exercises and Sport Movements Performance

Course Syllabus

1. Exam 4

V. Application of Kinesiology (CH 12)

A. Locomotive Sports + Fluid Dynamics

B. Throwing, Striking, Kicking

C. Influence on Planning & Programming for Athletics/Fitness

Sport Analysis = 100 points

Final Exam Cumulative

ASSIGNMENTS

1. Sport Analysis Rough Draft Due: OCT 20 @ 9AM =100 pts

2. Sport Analysis NOV 17 @ 9AM =100 pts

EXAMS and QUIZZES

1. Quizzes & In-class assignments = 100 – 200 pts

2. Exam 1 (Chapters 1 – 2) = 100 pts

3. Exam 2 (Chapters 8-11) = 100 pts

4. Exam 3 (Chapters 4-7) = 100 pts

5. Exam 4 (Chapter 3) = 100 pts

6. Final Exam (Cumulative) = 100 pts

Total Possible Course points = 800 pts

ARTICLES:

You will be tasked to acquire **PEER REVIEWED** articles outside of the ones provided to you on Blackboard™ for the completion of assignments and lab write-ups. **Use of non-peer reviewed articles (web articles from www.livestrong.com, www.bodybuilding.com, www.elitefts.com, www.crossfit.com, www.ymca.net, etc. are not acceptable sources for articles use as these are not peer-reviewed articles)** will result in 2 point deductions for EACH OCCURRENCE. It would be advisable to ask the instructor if your article is peer-reviewed and the correct referencing format is used prior to turning in your completed assignment. Take the time to read the article and if you are unsure or require clarity of a statement please do not hesitate to ask the instructor.

Examples:

- Brown JR, Alsarraf BJ, Waller M, Eisenman P, and Hicks-Little CA. (2014) Rotational Angles and Velocities During Down the Line and Diagonal Across Court Volleyball Spikes. *International J Kines Sports Sci.* 2(2): 1-8.
- Siff MC. (2000) Biomechanical Foundations of Strength and Power Training. In, Biomechanics in Sport: Performance enhancement and injury prevention. Ed. Zatsiorsky VM. Oxford, England: Blackwell Science Ltd; Pp. 103-142.
- Waller M, Townsend R, and Gattone M. (2007) Application of the power snatch for athletic conditioning. *Strength Cond J.* 29(3):10-20.

ASSIGNMENT

*****Assignments that are turned in in handwritten format will result in an automatic 50% reduction in points.**

Course Syllabus

Kinesiology Sport Movement Analysis Rubric

You will choose one of the possible sport movements provided.

(Sport selection is first come first choice).

Chapter 12 will assist with completion of this assignment.

1. Identify a sport actions primary purpose and attributes. (Strength, Power, etc.) = 5 pts
2. Break down the action into phases for identification (Start position, countermovement, etc.).
The analysis demonstrates a starting point, transition phase(s) (may be more than 1) and the finish that can be followed from one to another. = 15 pts
3. Identify the joint actions, muscles creating the action, role of the muscles (e.g. agonist) and the type of muscle actions for each phase. (Spinal right rotation: Right internal Oblique, left external oblique, etc. = concentric) = 50 pts
4. Identify the reflexes and other muscular movements (e.g. countercurrent) that occur in the sport movement. = 10 pts
5. Photo sequence/diagram of the sport movement is required and properly labeled. = 5 pts
6. Complete sentences are required for explanations of your analysis. = 10 pts
7. A **minimum of 5 (peer-reviewed) supporting documentations** (references) will be included in your analysis and need to be in correct APA format. = 5 pts

Total Points for Sport Movement Analysis = 100 pts

Correct spelling, grammar, and word selection are mandatory while acronyms are allowed but a key is required. There will be a 0.25 deduction for each error.

Course Syllabus

Presentation Rubric Task	Criteria	Low Standards	Moderate Standards	High standards	Pts
1. Attire	Dresses for occasion	Shorts, t-shirts, shower shoes, stained or torn clothing	Clean jeans/warm-up suit, collared athletic shirt, casual work or athletic shoes	Nice slacks/skirt, button-up shirt or sweater, dress shoes/boots	5
2. Mannerisms	Volume, speed, & clarity, poise	Reads presentation from notes or slides, mumbles, difficult to hear, multiple gestures or expressions unrelated to presentation	Speaks clearly at adequate volume, rushes, pauses or makes gestures or expressions unrelated to presentation, ie: um, uh	Clear, relaxed speech throughout, uses speech effectively to emphasize main points, few nervous gestures/expressions, use of eye contact.	5
3. Use of technology	Uses PowerPoint	Disorganized, repetitive, includes every word of presentation in slides	Slides are concise, organized, minimal repetition	Additional details in slide background, transitions, etc	5
4. Additional materials	Hand-outs, photos, charts, video, graphics	None observed	2-4 observed (may be included in ppt)	5 or more observed (may be included in ppt)	10
5. Vocabulary	Correct terminology	Frequent use of slang/text expressions, no explanation of specific terms	Occasional use of slang, explains program specific terms	Professional vocabulary & terminology used throughout	10
6. Writing errors in slides	Spelling, grammar, punctuation, word use	> 6 errors noticed	4-6 errors noticed	1-3 errors noticed	10
7. Timeframe	Length of class time	Unsuccessfully utilized entire class time ($\leq 75\%$ of class time)	Completed $>75\%$ but $< 90\%$ of class time	Effectively used class time and disseminated information	10
8. Answered questions	Asks for questions, answers questions	Unable to answer or unclear, incorrect answers for 50% of questions	Rambling when answering, answered 75%	Clear, direct answer to all questions, and answered 100%	5
9. Content	Accuracy of information	Information was general; lack of peer-review support; did not address topic	Information had only < 3 professional and 3 peer-review references; presented 50% topic	Information had > 3 professional and >3 peer-review references; presented topic	40

Labs and writing assignments will be evaluated based on the following criteria.

Course Syllabus

Note: Points will be adjusted to fit scoring scale

Criteria	Exceptional	Meets Expectations	Needs Improvement	Unacceptable
Following Instructions: <i>(For reviews and research)</i> <i>Introduction</i> <i>Methods</i> <i>Results</i> <i>Discussion</i> <i>Application</i> (15 points)	Introduction of the topic, methods or body topic, conclusion and application of topic, tables and figures are adequately and appropriately used. 1-3 errors	4-6 errors	7-9 errors	>10 errors
Content (45 points)	The material is well-organized and covers all key points & sub-points with a significant amount of detail & clearly delineated.	The material is organized and covers 70-90% of a key point(s). 1-2 elements do not relate to topic. 4-6 errors	The material covers 50-69% of a key points, minimal details, some points are unclear/incorrect. 7-9 errors	The material is missing many of a key points, thoughts are scattered, and incorrect details. >10 errors
Professional writing (35 points)	There are less than 3 errors (See guidelines Below)	There are 4-6 errors	There are 7-9 errors	There are >10 errors
Paper Presentation (5 points)	Neatly typed and uniformly formatted. The assignment has a very attractive and usable layout. It is easy to locate all important elements	Neatly typed, uniformly formatted and usable layout. Difficulty locating all important elements	Inconsistency in typing, format and difficulty locating all important elements.	Poorly formatted and the important elements are incoherently placed in the assignment.

Professional writing: Proper word selection, spelling, punctuation, grammar or syntax in the assignment or project, sentence structure, sentence & paragraph flow, sentence & paragraph transition, Times New Roman, 12 font, and double spaced. Spelling.

PE 4033: Exercise Physiology

Instructor:

Office:

Phone:

Email:

Office Hours: M-R 9:00-10:00 a.m. or by appointment. Subject to change, but not without an announcement via Blackboard.

Office hours will be held online through at <https://atu.webex.com/meet/gkraft>.

Class Time: online via Blackboard

Class Location: online via Blackboard

Required Textbook:

Powers, S. K. and Howley, E. T. (2015). *Exercise Physiology: Theory and Application to Fitness and Performance*. New York, NY: McGraw-Hill Education. (ISBN: 9781259982644)

The online Connect version of the text will be used rather than the print version.

Additional Materials:

Calculator

Internet access

Prerequisites:

PE 2653, PE 3661 and PE 3663

Catalog Description:

This course is designed to introduce the student to the basic effects of exercise on physiology of the systems of the body and the principles of exercise prescriptions and programs.

Course Description:

An investigation into the functional systemic adaptations made by the human body in adjusting to various types of physical activity. Also, the role of physical activity and its relationship to human development will be emphasized.

Course Rationale:

This course is designed to enhance the prospective physical educator's or coach's ability to develop and implement age and stage appropriate exercise programs. Educators and coaches must understand how the body responds when faces with challenges of physical exertion. It is also imperative that students be made aware of the role of physical activity in preventing hypokinetic diseases such as cardiovascular disease, obesity, diabetes, and osteoporosis.

Competencies:

1. Describe factors influencing exercise physiology and fitness over the past century
2. Discuss control of the internal environment (homeostasis, steady state, biological control systems)
3. Develop a knowledge and understanding about the role and relationship of ATP, muscle contraction, and the metabolic system
4. Discuss the biochemical pathways involved in anaerobic and aerobic ATP production (including enzymes and regulation of bioenergetics)
5. Demonstrate an understanding of the process by which the cardiorespiratory system influences human performance
6. Discuss the relationship between exercise intensity/duration and the bioenergetics pathways that are most responsible for the production of ATP during various types of exercise
7. Discuss hormonal responses to exercise
8. Describe the nervous system's structure and control of movement
9. Discuss the major biochemical and mechanical properties of human skeletal muscle fiber types and their relationship with performance
10. Describe the circulatory response to exercise
11. Explain the principal physiological function of the pulmonary system and the ventilator response to exercise
12. Explain the importance of acid-base balance regulation to exercise performance
13. Discuss the physiological changes that occur in response to variances in temperature
14. Discuss the physiology of training and its effect of VO_{2max} , performance, homeostasis, and strength
15. Discuss various components of the physiology of health and fitness
16. Discuss various components of the physiology of performance

Class Format:

The class will be taught entirely online. Access to Blackboard is critical to student success. All assignments will be completed through Blackboard.

Attendance:

University Policy states:

"Regular class attendance is considered essential if students are to receive maximum benefit from any course. Control of class attendance is vested in the teacher, who has the responsibility of defining early in each course his/her standards and procedures. A student accumulating an excessive number of unjustifiable absences in a course may be dropped from the course by the instructor with a grade of 'FE.' A student who is dropped from three courses in a semester for unsatisfactory class attendance may be immediately suspended."

Students are expected to log in to Blackboard daily to complete assignments. Students may work ahead; however, late assignments will not be accepted. If you know you will need to miss "class", please work ahead.

If you have an emergency that prevents you from logging in to Blackboard for more than a single day, please contact me immediately so arrangements can be made for you to complete the class.

Students who fail to log in to Blackboard and complete assignments for three consecutive days (weekends not included) will be dropped from the class unless you have communicated with me regarding an emergency.

Academic Dishonesty:

Plagiarism or cheating will not be tolerated. Unless permitted to work in groups, all assignments must be completed individually. The university policy for academic dishonesty will be followed.

Grading:

Introduction Discussion Board	10 points	Final Exam	100 points
LearnSmart Assignments	283 points	Total	1478 points
Chapter Quizzes	685 points		
Unit Exams	400 points		

Grading Scale

1330.2-1478 points	90-100%	A
1182.4-1330.1 points	80-89%	B

1034.6-1182.3 points	70-79%	C
886.8-1034.5 points	60-69%	D
Below 886.8 points	≤60%	F

ASSIGNMENT DESCRIPTIONS

Introduction Discussion Board:

Use the introduction discussion board to introduce yourself to the class. Begin a new thread in this discussion board to introduce yourself. You may type your intro, but a video is preferred. If you opt to use text, please include a picture of yourself.

In your introduction, include where you are from and one thing you like to do when not in school. Keep videos under 2 minutes in length. This assignment is worth 10 points.

LearnSmart Assignments:

These assignments are designed to help you read and understand the text. Through the content section of Blackboard choose the folder for the daily assignments you are trying to complete. The LearnSmart Assignment should be the first assignment you do.

This will ask you to read the text (while highlighting the key items) and then have you complete a self-assessment. As you read and re-read the text, the highlighted items will shift from “the most important during your first read” to “the most important now that you have a basic understanding”.

Points for these activities are based on the estimated amount of time to complete them. Longer assignments are worth more points than shorter assignments.

Continue assessing yourself until you get a perfect score on this assignment. There is no reason for anyone to earn less than 100% on these assignments.

Chapter Quizzes:

Chapter quizzes are designed to see what you have learned from the chapter. To be the most successful, wait to take the quiz until you have completed the LearnSmart Assignment. All quizzes are a mix of multiple choice and true/false questions.

Each quiz question is worth 1 point. Longer quizzes are worth more points. You will have 2 attempts to score well on the quizzes.

Unit Exams:

Unit exams are intended to determine how much you have learned over the course of the week. All unit exams will be on Friday and will only test over the chapters covered since Monday of that week. Questions will be a mix of multiple choice and true false. Some short answer essay questions may also be included.

Final Exam:

The final exam will be comprehensive. All chapters covered during the course will be included on the exam. Questions will be similar to those on the unit exams.

All assignments are due by 11:59 a.m. on their due date.

Bi-Monthly Check-in:

I will be scheduling a time to meet with each of you during my office hours 2 times during the month of June. I prefer that the first meeting occur June 3-11, while I would like the second to occur June 14-25. Each of these should only take a few minutes (up to 10) as I intend to use them to check-in to see how you are doing and what questions you have for me. If you have many questions, we may need to schedule a follow-up meeting to address them all.

You do not need to prepare for these sessions. However, I would strongly encourage you to be ready to ask any questions you would like me to clarify for you during this time. If you have questions, have them ready to go.

If you would like to avoid the Bi-Monthly Check-in, you may join me during my office hours for at least 5 minutes early in the date window for each Check-in.

Question Discussion Board:

If you have questions and do not want to wait for my virtual office hours to ask them, please post them to the question discussion board. I will check this regularly and post answers.

If you feel that you know the answer to another question, feel free to post a response. Include the page of the text that helped you answer the question. Bonus points will be provided for those who provide quality answers to questions in a timely fashion (within 48 hours of the question being posted).

It can be very helpful to get a sense of how someone else understands a concept. In addition, explaining a concept to someone else is a great way to enhance your own understanding.

Tentative Schedule

Date	Topic and Readings	Assignment
Tuesday - June 1	Introduction Chapter 0 – Physiology of Exercise	Introduction Discussion Board LearnSmart Chapter 0 Chapter 0 Quiz
Wednesday - June 2	Chapter 1 – Common Measurements in Exercise Physiology Chapter 2 – Control of the Internal Environment	LearnSmart Chapter 1 Chapter 1 Quiz LearnSmart Chapter 2 Chapter 2 Quiz
Thursday – June 3	Chapter 3 - Bioenergetics	LearnSmart Chapter 3 Chapter 3 Quiz
Friday – June 4	Chapter 4 – Exercise Metabolism	LearnSmart Chapter 4 Chapter 4 Quiz
Monday – June 7	Unit 1 Exam (Chapters 1-4)	Unit 1 Exam
Tuesday – June 8	Chapter 5 – Cell Signaling and the Hormonal Responses to Exercise	LearnSmart Chapter 5 Chapter 5 Quiz
Wednesday – June 9	Chapter 6 – Exercise and the Immune System	LearnSmart Chapter 6 Chapter 6 Quiz
Thursday – June 10	Chapter 7 – The Nervous System: Structure and the Control of Movement	LearnSmart Chapter 7 Chapter 7 Quiz
Friday – June 11	Chapter 8 – Skeletal Muscle: Structure and Function	LearnSmart Chapter 8 Chapter 8 Quiz
Monday – June 14	Unit 2 Exam (Chapters 5-8)	Unit 2 Exam
Tuesday – June 15	Chapter 9 – Circulatory Response to Exercise	LearnSmart Chapter 9 Chapter 9 Quiz
Wednesday – June 16	Chapter 10 – Respiration During Exercise	LearnSmart Chapter 10 Chapter 10 Quiz
Thursrday – June 17	Chapter 11 – Acid-Base Balance during Exercise	LearnSmart Chapter 11 Chapter 11 Quiz
Friday – June 18	Chapter 12 – Temperature Regulation	LearnSmart Chapter 12 Chapter 12 Quiz
Monday – June 21	Unit 3 Exam (Chapters 9-12)	Unit 3 Exam
Tuesday – June 22	Chapter 13 – The Physiology of Training: Effect of $\dot{V}O_{2max}$, Performance, and Strength	LearnSmart Chapter 13 Chapter 13 Quiz
Wednesday – June 23	Chapter 14 – Preventing Chronic Disease: Physical Activity and Healthy Eating Chapter 19 – Factors Affecting Performance	LearnSmart Chapter 14 Chapter 14 Quiz LearnSmart Chapter 19 Chapter 19 Quiz
Thursrday – June 24	Chapter 17 – Exercise for Special Populations	LearnSmart Chapter 17 Chapter 17 Quiz
Friday – June 25	Chapter 21 – Training for Performance	LearnSmart Chapter 21 Chapter 21 Quiz
Monday – June 28	Unit 4 Exam (Chapters 13, 14, 17, 19 & 21)	Unit 4 Exam
Tuesday – June 29	Chapter 22 – Training for the Female Athlete, Children, Special Populations, and the Masters Athlete	LearnSmart Chapter 22 Chapter 22 Quiz
Wednesday – June 30	Chapter 24 – Exercise and the Environment	LearnSmart Chapter 24 Chapter 24 Quiz
Thursday – July 1	Final Exam	Final Exam

Bibliography:

Boone, T. (2014). *Introduction to Exercise Physiology*. Burlington, MA: Jones & Bartlett Learning.

Haff, G. G. & Triplett, N. T. (Eds.) (2016). *Essentials of Strength Training and Conditioning* (4th ed.). Champaign, IL: Human Kinetics.

Kenney, W. L., Wilmore, J. H., & Costill, D. L. (2020). *Physiology of Sport and Exercise* (7th ed.). Champaign, IL: Human Kinetics.

McArdle, W. D., Katch, F. I., & Katch, V. L. (2016). *Essentials of Exercise Physiology* (5th ed.). Santa Barbara, CA: Wolters Kluwer.

Syllabus Statement and Title IX:

Arkansas Tech University does not discriminate on the basis of color, sex, sexual orientation, gender identity, race, age, national origin, religion, veteran status, genetic information, or disability in any of our practices, policies, or procedures. If you have experienced any form of discrimination or harassment, including sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the institution. If you report such an incident of misconduct to a faculty or staff member, they are required by law to notify Arkansas Tech University's Title IX Coordinator and share the basic fact of your experience. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus. For more information please visit: <http://www.atu.edu/titleix/index.php>.

Arkansas Tech University values diversity and inclusion and is committed to a climate of mutual respect and full participation of all students. My goal is to create a learning environment that is useable, equitable, inclusive and welcoming. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or prevent an accurate assessment of your achievement, please meet with me privately to discuss your needs and concerns. You may also contact the Office of Disability Services, located in Doc Bryan Student Center, Suite 141, in person, via phone at (479) 968-0302 or TTY (479) 964-3290, via email at disabilities@atu.edu, or visit their website at <https://www.atu.edu/disabilities/index.php> in order to initiate a request for accommodations.

PE 4103
Adapted Physical Activity

Instructor Information:

Name: John O'Connor

Office: Hull 103

Office Phone: 479-964-0583 ext.4906

Email: joconnor1@atu.edu

Office Hours:

	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 9	PE3103	PE3103 8 – 9:20	PE3103	PE3103 8 – 9:20	
9 – 10	Office Hours		Office Hours		
10 – 11	PE 4103		PE4103		PE4103
11 – 12	Office Hours		Office Hours		Office Hours
12 – 1	PE 4203		PE 4203		PE4203
1 – 2	Office Hours		Office Hours		Office Hours
2 – 3	PE4523		PE4523		PE4523
3 – 4					

Spring Schedule 2021**Dr. John O'Connor, CAPE, CARSS****Ph: 479-968-0583 ext.4906****Email: joconnor1@atu.edu**

Student meetings will be conducted by WebEx.

Meetings **MUST** be scheduled **one day** in advance.**Spring Semester 2021**

"I think we need to approach the fall semester with a growth mindset to say:

This is gonna be hard.

This is gonna be challenging.

I'm gonna have to learn some new skills as a teacher.

I may have to learn some new technologies.

I'm going to try to do that in a way that doesn't overwhelm me.

Don't try to take on too much, too fast. But you'll have to take on some new stuff this fall. And whether that's active learning with technology in a hybrid classroom, or that's designing an online course, or using some part of your course management system that you've never touched before, but might actually be helpful this fall, **we're all going to be stretching out of our comfort zones this fall**. And that's okay. It's going to be hard work, but I think if we collaborate and lean on each other a little bit, we'll be fine."

1. Catalog Description

Principles and methods of adapting physical activities for persons with disabilities. Lecture two hours, lab two hours. Federal and state laws make it mandatory that persons with disabilities cannot be discriminated against. This course is designed for students who will be delivering services to the public in recreational and fitness settings.

2. Required Text

Inclusive Fitness Trainer
American College of Sports Medicine

3. Justification/rationale for course

This course will aid students in their ability to provide physical activity to persons with disabilities. By obtaining the knowledge of the abilities of persons with disabilities, the skills to adapt various activities for persons with disabilities, and finally having the opportunity to work with persons with disabilities, students will develop a greater appreciation for, and awareness of, diverse populations.

4. General Education Goals

Developing and using safe and appropriate movement experiences for persons with disabilities requires an understanding of wellness concepts. Ethical perspectives regarding the rights of persons with disabilities and their treatment in educational, recreational, and community settings are developed and elaborated upon.

5. Competencies

The course is structured to ensure that the students will:

- a. Identify general characteristics of disabling conditions
- b. Identify major laws impacting the rights of persons with disabilities
- c. Describe, discuss, and implement techniques to integrate persons with disabilities into physical activities in the least restrictive environment
- d. Describe and discuss various techniques and programs to aid in the development of the motor skills of persons with disabilities
- e. Observe and assist a person with a disability in physical activities a minimum of eight (8) hours

6. Educational Opportunities

- a. Lecture
- b. Field experiences
- c. Class assignments
- d. Guest speakers

7. Assessment Methods

- a. Quizzes Daily
- b. Article Reviews
 - i. All articles must be from the Blackboard "Articles" Folder
 - ii. Each article review should follow the template provided
 - iii. Article one (25 pts)
 - iv. Article two (25 pts)
 - v. Article three (25 pts)
 - vi. Article four (25 pts)
 - vii. Article five (25 pts)
 - viii. Article six (25 pts)
 - ix. Article seven (25 pts)
- c. Special Olympics Sport (25 pts)

- i. Description
 - ii. Similarities and differences
 - iii. Assessment
- d. Adapted Physical Activity Labs
 - i. FitnessGram Assessment (0 pts)
 - ii. Accessibility Evaluation (0 pts)
 - iii. Wheelchair Activity (0 pts)
 - iv. Visual Impairment Leading and Activity (0 pts)
- e. Written Tests
 - i. CARRS-I Certification Exam (100 pts) OPTIONAL
 - ii. Chapter Tests (100 pts)
 - iii. Final Exam (100 pts)
- f. Daily Assignments
 - i. Reading Quizzes (25 pts)
 - ii. Chapter Thought Questions (25 pts)
 - iii. Vocabulary (25 pts)
 - iv. Getting to Know You (10 pts)
- g. Disability Sport Card Assignment (25 pts)
 - i. Select an athlete with a disability
 - ii. Develop a short biography for the individual
 - 1. Name, age, gender, location, sport, disability, interests, etc.
- h. Disability Presentations (50 pts)
 - i. Prepare a presentation for the class on the disability you are assigned.
 - ii. The presentation should include:
 - 1. Title page
 - 2. Contents
 - 3. Definition
 - 4. ACSM Guidelines for assessment
 - 5. ACSM guidelines for activity
 - 6. ACSM contraindications
 - 7. Sports or recreational activities appropriate for members of this group
 - 8. Organizations for resources or advocacy
 - 9. A learning activity
 - iii. Please don't lecture the whole period to us. Create a learning activity that will engage us and allow us to learn about the disability you are instructing about.
 - iv. Provide a one page handout

8. Grading

Grading Scale:

90 – 100	= A
80 – 89	= B
70 – 79	= C
60 – 69	= D
59 or less	= F

9. Policy on Absences

- a. Each student will be allowed **three** unexcused absences. On the **FOURTH** absence, the student's grade will be dropped one letter grade and an additional letter grade for each absence following. Missed work will not be made up for unexcused absences.
- b. Excused absences include all school sanctioned events in which the instructor has received documentation and proper notification (prior to or within 24 hours of the absence). Missed work must be made up within two class periods following an excused absence.
- c. Students are expected to be in class on time and to remain in class until the class dismisses. Tardy students present a distraction to learning activities and may be prevented from entering the classroom. It is your responsibility to be present for class on time and ready to participate.
- d. Two tardies = one absence
- e. The instructor will adhere to the University Academic Misconduct / Academic Dishonesty Policy. Students have the right to appeal an assigned grade following the Appeal of Academic Grade procedures as outlined in the *Student Handbook*.

Student Needs Statement

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to notify the instructor, if they are comfortable in doing so.

Community resources are available for students and can be found at the following webpage:

<https://www.atu.edu/localresources/>

If a student finds they need more support, they are encouraged to contact the Office of the Vice President for Student Services (479-968-0238).

Be Aware:

Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.

College of Education Vision

The Arkansas Tech University College of Education is dedicated to **developing successful and innovative professionals** who will internalize, initiate, and sustain a commitment to impact individuals in diverse and evolving communities.

College of Education Mission

1. The Arkansas Tech University College of Education prepares professionals, who will positively impact learners, systems, and communities, by providing competency- and outcomes-based undergraduate and graduate programs.

2. Course Content

See Table Below.

The End:

If a man were to know the end of this day's business 'ere it come. But it suffices that the day will end and then the end be known. And if we meet again, well then we'll smile. And if not, then this parting was well made.

Tentative Course Schedule

Week	Class	Date	Learning Activities	Assignments
1	41	11 Jan	Course Introduction & Expectations Advocacy Presentation	
	40	13 Jan	Syllabus Definitions & Terminology	Getting to Know Me Attendance Agreement Wheelchair Activity Assignment
	39	15 Jan	Chapter Sixteen Barriers to Participation	Article Reading Assignment # 1
2		18 Jan	No Class	
	38	20 Jan	Disability Sport	Disability Sport Card Assignment
3	37	22 Jan	CIFT Introduction to the Field and Profession	Read Chapter 1, 2, and 3
	36	25 Jan		Chapter One Quiz
	35	27 Jan	Certification Guidelines and Meaning	Chapter Two Quiz
4				
	34	29 Jan	Americans with Disabilities Act	Article Reading Assignment # 2
	33	01 Feb	Promoting Basic Accessibility	Accessibility Evaluation Assignment Chapter Five Quiz
4	32	03 Feb	Universal Design	Chapter Six Quiz
	31	05 Feb	Classification of Function	Chapter Seven Quiz

Polar Bear Plunge 2021 for Special Olympics Arkansas

06 Feb 2021 Lake Dardanelle State Park

5	30	08 Feb		Article Reading Assignment # 3
	29	10 Feb	Initial Client Consultation	Chapter Eight Quiz
6	28	12 Feb		Disability Sport Card Assignment
	27	15 Feb	Client – Centered Goals and Objectives	Chapter Nine Quiz
	26	17 Feb	Screening, Risk Assessment, and Red Flags	Chapter Ten Quiz
7				
	25	19 Feb		Visual Impairment Leading and Activity Article Reading Assignment # 4
	24	22 Feb	Health, Physical Fitness, and Functional Assessments	Chapter Eleven Quiz
7	23	24 Feb		Special Olympics Sport Assignment
	22	26 Feb	General Exercise Program Design Considerations	Chapter Twelve Quiz

8	21	01 Mar		
	20	03 Mar	Flexibility and Balance Programs	Chapter Thirteen Quiz
9	19	05 Mar		Article Reading Assignment # 5
	18	08 Mar	Resistance Training Programs	Chapter Fourteen Quiz
	17	10 Mar		
10				
	16	12 Mar	FitnessGram Testing	Tour of FitnessGram
	15	15 Mar	Cardiopulmonary Training Programs	Chapter Fifteen Quiz
11	14	17 Mar		
	13	19 Mar	Spinal Cord Lesions	Student Presentations
12		22 Mar	Spring Break	
		23 Mar	Spring Break	
		24 Mar	Spring Break	
		25 Mar	Spring Break	
13		26 Mar	Spring Break	
	12	29 Mar	Non-Progressive Brain Injuries	Student Presentations Article Reading Assignment # 6
	11	31 Mar	Neuromuscular Conditions	Student Presentations
14				
	10	02 April	Cognitive Disabilities	Student Presentations
	9	05 Apr	Musculoskeletal Conditions	Student Presentations
15	8	07 Apr	Communication Disorders	Student Presentations
	7	09 Apr	Medical Disorders	Student Presentations
	6	12 Apr	Cardiopulmonary Disorders	Student Presentations
16				
	5	14 Apr	Emergency Protocols and Risk Management	Student Presentations
	4	16 Apr	Autism Spectrum Disorder	
17	3	19 Apr	Autism Spectrum Disorder	
	2	21 Apr	Autism Spectrum Disorder	Article Reading Assignment for Autism
18	1	23 Apr	Emergency Protocols and Risk Management	Chapter 25 Quiz
	0	26 Apr	Reading Day	

Final Examination: 27 April 2021, Tuesday @ 10:30 – 12:30

Students are required to follow instructor rules, comply with instructions given, and utilize correctly all safety equipment or procedures provided or indicated.

APPENDIX B

BS in Health and Exercise Science Course Evaluations

HES 1003 Intro Exercise Programming
HES 2003- Field-Based Experience in Health & Exercise
HES 2013 Weight training for CPT, Sport Coach, and PE
HES 2023 Endurance Conditioning
HES 3003 Exercise Prescription
HES 3013 Coaching Power, Speed, and Agility
HES 3023 Exercise Behavior and Adherence
HES 2043 Applied Fitness Assessment and Development
HES 4003- Senior Seminar
HES 4012 Health & Exercise Science Internship
HES 4013 Health & Exercise Science Practicum
HES 4023 Principles of Strength and Conditioning
HES 4043 Exercise Physiology Lab
HES 4053 Biomechanics
HES 4063- Health and Fitness Programming
HLED 1513 Lifetime Health and Fitness
HLED 3203 Consumer Health Programs
HLED 4403 Sport & Exercise Nutrition
PE 1201 Orientation to PE
PE 2513 First Aid
PE 2653 Anatomy and Physiology
PE 3663 Kinesiology
PE 3661 Lab Experiences in Anatomy/Physiology and Kinesiology
PE 3573 Prevention & Care of Athletic Injuries
PE 4033 Exercise Physiology

Question 1

I can develop and be prepared to convey knowledge of resistance training to total fitness.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 2

I can demonstrate the ability to devise resistance training programs for total physical health.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 3

I have developed knowledge and understanding of resistance training physiological responses.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 4

I can develop and be prepared to convey knowledge gained from the course of fitness training.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 5

I can discuss and demonstrate proper cardiovascular training form which enhances performance and reduces the risk of injury.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I can describe the appropriate frequency, intensity, and time of cardiovascular training required for physiological adaptations.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

I have developed an understanding of how aerobic fitness can be achieved from cardiovascular training (e.g. walking and jogging) and can improve one's overall health.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

I can discuss the basic tenets of the Food Guide Pyramid and explain how it relates to an overall effective exercise program.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

I can describe the basic roles and functions of the six basic nutrient classifications: carbohydrate, fat, protein, water, vitamins, and minerals.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 10

I can demonstrate a basic knowledge of body fat control and maintenance of body fat.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 11

I can demonstrate and discuss the concept of locus of control, and describe how its employment leads to personal health enhancement.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 12

I can design an overall exercise program for total fitness that will address personal goals, which are based on the training principles.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

Develop an understanding and appreciation of health and wellness concepts.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 2

Develop an understanding of the role of the fitness and wellness educator.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 3

Gain knowledge concerning the goals and values of fitness/wellness education and the effects it has on our community.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 4

Develop and express a personal philosophy of fitness/wellness education, relative to qualification and certification.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 5

Become familiar with the various professions within health, fitness/wellness education, relative to qualification and certification.				
(5) I can perform on my own <input type="radio"/>	(4) I can perform with help <input type="radio"/>	(3) I have knowledge <input type="radio"/>	(2) This was discussed <input type="radio"/>	(1) This was not discussed <input type="radio"/>

• Reversed Options

Question 1

I have become familiar with various types of training principles, methods and exercise instruction to improve an individuals' muscular strength performance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I have learned exercise/drill technique for improvement of muscular strength.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I can describe proper spotting technique and identify/predict common mistakes compromising exercise safety and limiting efficient exercise technique.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I can describe and perform the proper methods for engaging safely in weightlifting and other weight training exercises.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I have learned the research related to muscular development specific to weightlifting and weight training exercises.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I have developed an understanding of the competencies and proficiencies of personal training, coaching and physical education.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

I have become familiar with various types of training principles, methods and exercise instruction to improve an individuals' endurance performance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I have learned exercise/drill technique for improvement of cardiovascular, aerobic, and anaerobic endurance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I can describe proper/safe exercise technique, identify/predict common mistakes compromising exercise safety, and establish a safe training environment.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I can describe, perform, and coach/instruct the proper methods for engaging safely in cardiovascular, aerobic, and anaerobic endurance exercises.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I have learned the research related to cardiovascular, aerobic, and anaerobic endurance training.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 6

I have developed an understanding of the competencies and proficiencies of personal training and coaching.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 1

I understand the attributes of health-related physical fitness and skill-related physical fitness as they relate to quality of life and life-style.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I can demonstrate administrative and evaluative processes of physical readiness questionnaires and information histories.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I can describe an appropriate evaluation procedure for testing physical fitness with particular attention to safety and efficiency.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I can demonstrate administrative knowledge and discuss results of cardio respiratory, body composition and musculoskeletal fitness assessments.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I can demonstrate design processes of individual exercise prescriptions for all components of physical fitness.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I understand the guidelines and current issues regarding the role of exercise in body fat loss.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

I understand the current information about aging and physical activity.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

I understand the precautions to apply to physical activity.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

I can discuss pertinent trends in physical fitness testing identified in current literature.				
(5) I can perform on my own <input type="radio"/>	(4) I can perform with help <input type="radio"/>	(3) I have knowledge <input type="radio"/>	(2) This was discussed <input type="radio"/>	(1) This was not discussed <input type="radio"/>

• Reversed Options

Question 1

Articulate on a written exam and understanding of the role of physical activity in promoting health and fitness within our society.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

Apply knowledge of the human body, its structure, function, capabilities and limitations in relation to physical activity when prescribing appropriate exercise modalities to fictionalized case studies and actual clients.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

Conduct a testing program that assists at least three clients in gaining insight into his/her strengths and weaknesses related to each fitness component.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

Prescribe appropriate exercise prescription to demonstrate knowledge of the principles necessary for the development of cardiovascular endurance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

Prescribe appropriate exercise prescription to demonstrate knowledge of the principles necessary for the development of muscular strength and endurance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

Prescribe appropriate exercise prescription to demonstrate knowledge of the principles necessary for the development of muscular flexibility.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

Prescribe appropriate exercise programs and appropriately update the exercise prescription to demonstrate knowledge relative to human responses and adaptations to exercise and training.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

Devise an exercise plan that demonstrates an understanding of the role exercise plays in such areas as nutrition, weight management, and coronary heart disease.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

Develop a progressive conditioning program that is individualized for each student.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 10

Design an effective program of personal exercise for maintaining physical fitness over a lifetime.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 11

Design training programs to attain optimal fitness levels through development of an individual exercise prescription for special populations.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 1

I have become familiar with various types of training principles, methods and exercise instruction to improve an individuals' muscular power performance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I have learned exercise/drill technique for improvement of muscular power, speed, agility, and change of direction.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I can describe proper/safe exercise technique, identify/predict common mistakes compromising exercise safety, and establish a safe training environment.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I can describe, perform, and coach/instruct the proper methods for engaging safely in plyometrics, shock exercises, sprints, agility, and change of direction.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I have learned the research related to muscular development specific to power, speed, agility, and change of direction training.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I have developed an understanding of the competencies and proficiencies for personal training and coaching.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

Discuss and demonstrate the basic client interviewing techniques typically employed in the counselor/ client setting.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

Administer and evaluate the results of nutritional surveys to determine the nutritional status of clients.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

Discuss and implement psychological principles inherent to realistic exercise behavior goal setting techniques.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

Administer and discuss the results of wellness questionnaires designed to determine physical readiness for exercise participation and a personal health history of a client.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

Describe and demonstrate the use of behavior contracting to assist with client commitment to an exercise lifestyle.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

Identify and discuss specific components which directly impact personal motivation for the development of appropriate exercise behaviors.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

Design and discuss incentives which assist in adherence to health enhancement programs.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

Discuss pertinent factors identified in the literature as inhibiting or assisting exercise behavior adherence.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

I am familiar with the scientific and nonscientific sources of wellness information.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I can identify types of data that are relevant to the issues of wellness.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I have become acquainted with the governmental agencies that can aid in providing information concerning wellness topics and issues.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I have become familiar with the use of data and information, and the presentation of these in assisting consumers in making choices.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I have explored many factors that impact personal health status.				
(5) I can perform on my own <input type="radio"/>	(4) I can perform with help <input type="radio"/>	(3) I have knowledge <input type="radio"/>	(2) This was discussed <input type="radio"/>	(1) This was not discussed <input type="radio"/>

• Reversed Options

Question 1

Direct opportunities of a varied nature which will permit firsthand experiences with subject.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

Work situations involving problems in which the intern will have an opportunity to analyze and solve the problems.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

Opportunities for the intern to put into practice many of the theories studied in various professional preparation courses.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

Situations in which skills and competencies are developed.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

Work with subjects in many different situations.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 6

Develop the intern's ability to teach skills and knowledge in a variety of situations.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 7

The ability to recognize, adjust to, and make provisions for individual differences in the skills, needs, and abilities of subjects.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 8

Develop the ability to handle daily routines.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 9

Evaluate subjects in patterns of physical fitness, skills and knowledges.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 10

To view the establishment as a whole and to learn his/her responsibilities in carrying out administrative policies and in accomplishing the general objectives of the total program.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 11

An opportunity to work with subjects of all ages.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 12

Stimulate the intern's desire for continuous professional growth.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 13

Enable the intern to develop into a well-balanced individual, a person possessing a pleasing personality and desirable personal characteristics.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 14

Help the intern discover, use and apprise group processes that promote effective human relations.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 15

Provide intern with opportunities for self-analysis and for the development of self-confidence.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 16

In which the intern learns to select, use, and interpret objective data and records so as to understand and guide the subjects growth.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 17

Learn to select, use, and interpret objective data and records so as to understand and guide the subject's growth; which will enable the intern to become familiar with professional literature, textbooks, reference materials, community resources, and available equipment, particularly in the area of concern.

(5) I can perform on my own	(4) I can perform with help	(3) I have knowledge	(2) This was discussed	(1) This was not discussed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

• Reversed Options

Question 1

I am able to develop and market campus wellness programs to faculty, staff, and students.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 2

I can lead safe and effective exercise programs for health and special populations.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 3

I am able to develop and deliver short presentations on a variety of wellness topics.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 4

I can design a newsletter and/or other informational materials to be distributed across campus.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 5

I can effectively counsel individuals on wellness-related issues.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 6

I can demonstrate knowledge of appropriate safety and emergency procedures.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 7

I am able to perform basic operational duties including, but not limited to, calling clients, data entry, scheduling, and equipment maintenance etc.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 1

I am able to describe the Program Development Cycle, the Organizational Triad, and the Human Movement Triad.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I can relate the basic tenets of Exercise Physiology, Biomechanics, and Nutrition to strength and conditioning program development.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I am able to assess various physical performance attributes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I can lead individuals in a variety of warm-up and stretching routines including static, dynamic, and PNF stretching.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I can explain and demonstrate proper weight lifting and spotting techniques.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 6

I can explain and demonstrate proper use of kettlebells.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 7

I can explain and demonstrate appropriate progressions for plyometric training.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 8

I can explain and demonstrate techniques designed to enhance speed and agility.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 9

I can explain and demonstrate various traditional, as well as innovative, callisthenic techniques for conditioning.				
(5) I can perform on my own <input type="radio"/>	(4) I can perform with help <input type="radio"/>	(3) I have knowledge <input type="radio"/>	(2) This was discussed <input type="radio"/>	(1) This was not discussed <input type="radio"/>

• Reversed Options

Question 10

I can explain and demonstrate techniques employed to enhance cardiovascular performance.				
(5) I can perform on my own <input type="radio"/>	(4) I can perform with help <input type="radio"/>	(3) I have knowledge <input type="radio"/>	(2) This was discussed <input type="radio"/>	(1) This was not discussed <input type="radio"/>

• Reversed Options

Question 1

I have learned to analyze and interpret physiological systems' responses to physical activity, exercise and sport.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I have learned to analyze and interpret cardiovascular endurance, muscular strength & endurance, flexibility, body composition.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I have learned when to select and apply lab and field tests.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I have learned to analyze and interpret laboratory and field tests of athletes and other active individuals, and how this information can be used in training plans and programs.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

I have learned to analyze and interpret how the neuromuscular system functions.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 2

I have learned to analyze and interpret linear and angular kinematics during human movement.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 3

I have learned to analyze and interpret linear and angular kinetics during human movement.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 4

I have developed an understanding and knowledge to quantify the variables of biomechanics in quantitative and qualitative reports.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 5

I have developed an understanding of how to apply the biomechanical concepts to exercise and athletics.				
(5) I can perform on my own <input type="radio"/>	(4) I can perform with help <input type="radio"/>	(3) I have knowledge <input type="radio"/>	(2) This was discussed <input type="radio"/>	(1) This was not discussed <input type="radio"/>

• Reversed Options

Question 1

I have learned to design, administer, and evaluate needs assessment instruments employed with various populations.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I can describe and demonstrate the use of various physical fitness testing procedure typically employed in the health and wellness profession.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I can identify and demonstrate skills and knowledge required in the selection process of appropriate educational materials designed for various populations.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I can discuss appropriate techniques employed in the selection process of teaching personnel for the varied health enhancement programs.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I understand and can demonstrate knowledge and skills required in the dynamics of working with personnel management within the corporate, commercial, and medical based programs.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I can identify and discuss basic concerns which need to be addressed during the administration of wellness and fitness enhancement programs.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

I have knowledge sales, marketing, advertising, and cost effectiveness of wellness and fitness enhancement programs.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

I am able to discuss techniques which may be employed to improve mental health status.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 2

I am able to discuss Maslow's hierarchy of needs and the relationship between fulfilling one's personal needs and achieving optimal health status.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 3

I am able to identify components of an addictive personality and describe strategies to modify personal behavior pertaining to personality type.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 4

I am able to determine the personal behaviors and lifestyle choices that enhance health status.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 5

I am able to discuss the physiological responses of tobacco use on the human body.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 6

I am able to discuss the health inhibiting effects of short-term and long-term tobacco use on the individual that uses tobacco products.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 7

I am able to discuss the process of alcohol metabolism in the body and identify the factors which determine the rate of alcohol metabolism.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 8

I am able to describe the immediate and potential long term physiological effects of alcohol on the human body.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 9

I am able to discuss methods in which alcohol may be consumed in a responsible manner.

- | | | | | |
|---|---|--|--|--|
| (5) I can perform on my own.
<input type="radio"/> | (4) I can perform with help.
<input type="radio"/> | (3) I have knowledge.
<input type="radio"/> | (2) This was discussed.
<input type="radio"/> | (1) This was not discussed.
<input type="radio"/> |
|---|---|--|--|--|

• Reversed Options

Question 10

I am able to identify and discuss general and specific safety and injury prevention considerations for various exercise activities.

- | | | | | |
|---|---|--|--|--|
| (5) I can perform on my own.
<input type="radio"/> | (4) I can perform with help.
<input type="radio"/> | (3) I have knowledge.
<input type="radio"/> | (2) This was discussed.
<input type="radio"/> | (1) This was not discussed.
<input type="radio"/> |
|---|---|--|--|--|

• Reversed Options

Question 11

I am able to list and discuss various types of sexually transmitted disease, and demonstrate knowledge of preventing sexually transmitted disease infection.

- | | | | | |
|---|---|--|--|--|
| (5) I can perform on my own.
<input type="radio"/> | (4) I can perform with help.
<input type="radio"/> | (3) I have knowledge.
<input type="radio"/> | (2) This was discussed.
<input type="radio"/> | (1) This was not discussed.
<input type="radio"/> |
|---|---|--|--|--|

• Reversed Options

Question 12

I am able to discuss the effectiveness of different methods of birth control, and identify appropriate locations to purchase birth control devices.

- | | | | | |
|---|---|--|--|--|
| (5) I can perform on my own.
<input type="radio"/> | (4) I can perform with help.
<input type="radio"/> | (3) I have knowledge.
<input type="radio"/> | (2) This was discussed.
<input type="radio"/> | (1) This was not discussed.
<input type="radio"/> |
|---|---|--|--|--|

• Reversed Options

Question 13

I am able to identify and discuss various communication methods that enhance the various relationships people have with one another.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 14

I am able to list and discuss health related issues and services for the aging person.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 15

I am able to list and discuss environmental health issues and topics which impact quality of life.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 16

I am able to identify and discuss communicable and chronic diseases that impact health status.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 17

I am able to discuss techniques to establish a basis for wellness.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 18

I am able to discuss techniques to make a personal nutritional plan.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 19

I am able to discuss exercise for health, fitness, and managing weight.

(5) I can perform on my own.
☐

(4) I can perform with help.
☐

(3) I have knowledge.
☐

(2) This was discussed.
☐

(1) This was not discussed.
☐

• Reversed Options

Question 1

I am able to adequately discuss the origins of the consumer movement that have evolved into the current status of the marketplace in our society.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I am able to identify and discuss the components of the Consumer Bill of Rights and describe the basic characteristics of being an intelligent health consumer.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I am able to exhibit an understanding of various federal laws, which have been enacted to assist the health consumer in obtaining safe and effective health products, medications, and services.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I am able to recognize health products and services that consist of unproven and questionable claims pertaining to health.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I am able to exhibit an understanding of the role of the scientific method in forming conclusions about the validity of health products, services, and claims.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I am able to discuss the purpose of advertising and the role advertising plays in persuading consumers to purchase health products and services.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

I am able to define scientific and nonscientific health care and identify the various practitioners from each category.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

I am able to adequately discuss suggested methods of selecting health care facilities in our society.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

I am able to effectively analyze the differences and similarities between generic and brand name drugs in regard to their strength, effectiveness, and cost.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 10

I am able to identify and effectively discuss basic exercise concepts, devices, and services, which assist the health consumer in improving personal lifestyle.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 11

I am able to describe the primary roles and responsibilities of various federal government agencies regarding the protection and education of the health consumer against unsafe and ineffective products and services.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 12

I am able to identify and discuss various communicable diseases which may have an impact on personal health status.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

Identify and adequately discuss several reasons that explain the process of food selection employed by members of our society.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

Identify and define the essential characteristics of dietary planning.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

List the six classifications of nutrients and identify the elements comprising each nutrient.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

List the energy containing nutrients and identify the amount of calories contained in each nutrient per gram of weight.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

Adequately discuss the food guide pyramid plan and provide examples of specific food sources from each group.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

Define the term carbohydrate, explain the differences between simple and complex carbohydrates, and provide specific examples of food sources which may be consumed to adequately nourish the body with carbohydrates.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

Define the terms lipids, fats, and oil, and adequately explain the differences between animal fat and plant oils.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

Define the term protein and ad define the term protein and adequately describe the various roles of protein in the human body.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

Define the term vitamin, list the fat-soluble and water-soluble vitamins, and explain the differences between the two classifications of vitamins.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 10

Define the term mineral, list various major minerals and trace minerals.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 11

Adequately discuss the significance of adequate consumption of water in the diet regarding proper functioning of body processes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 12

Identify and discuss psychological and physiological causes of obesity and overweight in our society.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 13

Adequately discuss methods of obtaining and maintaining an appropriate weight according to principles based on scientific research in nutrition and weight management.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 14

List and discuss several reasons explaining why low carbohydrate diets and fasting are not effective methods to employ regarding long term weight loss and improvement in quality of life.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 15

List the four components of physical fitness, describe scientific methods and techniques to employ to adequately modify each component.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 16

List various snacks which have been identified as good sources of nutrition based on low content of fat and adequate content of carbohydrates.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 17

Describe the relationship between diet and performance at a resting state, and during more intense work capacities.

(5) I can perform on my own	(4) I can perform with help	(3) I have knowledge	(2) This was discussed	(1) This was not discussed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

• Reversed Options

Question 18

Discuss the relationship between diet and body fuel sources employed at a resting state, and during more intense work capacities.

(5) I can perform on my own	(4) I can perform with help	(3) I have knowledge	(2) This was discussed	(1) This was not discussed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

• Reversed Options

Identify curricular choices and opportunities.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

Write the characteristics of the successful college student.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

Use and understand the college catalog.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

List qualities of the HPE/WS professional.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

Access and use the Hull Building and Pendergraft Library and Technology Center.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

Identify components of a professional portfolio.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

Access University services and resources and understand the importance of managing finances.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

Identify graduate opportunities.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

Identify ATU technology resources.

I can perform on my
own
☐

I can perform with help
☐

I have knowledge
☐

This was discussed
☐

This was not discussed
☐

Question 1

I am able to explain how the emergency medical services (EMS) system works.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I am able to describe my role as a citizen responder in the EMS system.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I am able to list the five common barriers to action that may prevent people from responding to emergencies.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I am able to define the legal aspects of first aid care.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I am able to identify major systems of the body and describe the primary functions of each.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I am able to demonstrate by practical example how to conduct a proper patient assessment including primary survey and a secondary survey (patient interview, vital signs, and head to toe exam).

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

I am able to list the emergency action steps.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

I am able to recognize the need for and correctly identify the proper sequence of performance for obstructed airway, and adult CPR care.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

I am able to demonstrate by practical example how to properly dress and bandage a wound.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 10

I am able to recognize the types of bleeding and describe the methods of bleeding control.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 11

I am able to list signals of internal bleeding.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 12

I am able to recognize the signs and symptoms of burns and identify the proper treatment.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 13

I am able to recognize the signs and symptoms of injuries to bones and joints and identify the proper treatment.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 14

I am able to recognize the signs and symptoms of injuries to bones and joints and identify the proper treatment.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 15

I am able to demonstrate by practical example how to properly splint fractures/dislocations.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 16

I am able to recognize the signs and symptoms of specific medical emergencies (heart attack, diabetes, etc.) and identify the proper treatment.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 17

I am able to recognize the signs and symptoms of poisoning and identify the proper treatment.

- | | | | | |
|--|--|---|---|---|
| (5) I can perform on my own
<input type="radio"/> | (4) I can perform with help
<input type="radio"/> | (3) I have knowledge
<input type="radio"/> | (2) This was discussed
<input type="radio"/> | (1) This was not discussed
<input type="radio"/> |
|--|--|---|---|---|

• Reversed Options

Question 18

I am able to recognize the signs and symptoms of substance misuse and abuse and identify proper treatment.

- | | | | | |
|--|--|---|---|---|
| (5) I can perform on my own
<input type="radio"/> | (4) I can perform with help
<input type="radio"/> | (3) I have knowledge
<input type="radio"/> | (2) This was discussed
<input type="radio"/> | (1) This was not discussed
<input type="radio"/> |
|--|--|---|---|---|

• Reversed Options

Question 19

I am able to recognize the signs and symptoms of specific environmental emergencies (frostbite, heat stroke, etc.) and identify the proper treatment.

- | | | | | |
|--|--|---|---|---|
| (5) I can perform on my own
<input type="radio"/> | (4) I can perform with help
<input type="radio"/> | (3) I have knowledge
<input type="radio"/> | (2) This was discussed
<input type="radio"/> | (1) This was not discussed
<input type="radio"/> |
|--|--|---|---|---|

• Reversed Options

Question 20

I am able to identify the proper emergency moves to be used in moving patients.

- | | | | | |
|--|--|---|---|---|
| (5) I can perform on my own
<input type="radio"/> | (4) I can perform with help
<input type="radio"/> | (3) I have knowledge
<input type="radio"/> | (2) This was discussed
<input type="radio"/> | (1) This was not discussed
<input type="radio"/> |
|--|--|---|---|---|

• Reversed Options

Question 1

I have developed knowledge and understanding of human bodily organization.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 2

I have developed knowledge and understanding of the structure and function of the generalized cell.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 3

I have acquired knowledge of bone development from the cellular level to adult ossification.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 4

I understand the importance of growth plate closure related to activity.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 5

I have gained an understanding of the anatomy of the human axial and appendicular skeleton.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 6

I have developed knowledge of the parts of bones which serve as biomechanical levers structures within the axial and appendicular skeleton.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 7

I have acquired knowledge of the characteristics, function, and locations of joints within the body.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 8

I have developed knowledge of the purposes of the human muscle as an organ.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 9

I have acquired knowledge of the anatomical parts of muscle fibers and the muscle as an organ.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 10

I have developed an understanding of the physiochemical and physiological occurrences during muscle contraction.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 11

I have developed knowledge of the names of skeletal muscles.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 12

I have acquired knowledge of the actions possible by each of the musculoskeletal articulation.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

I am able to understand the historical foundations of athletic training.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 2

I am able to differentiate between the roles of the coach, athletic trainer, and the team physician.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 3

I know the major legal concerns of the coach and athletic trainer in terms of sports injuries and how negligence can be avoided.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 4

I can describe the value of specific conditioning activities in injury prevention, including flexibility, strength development, and endurance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 5

I am able to demonstrate the ability to accomplish protective taping and wrapping.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 6

I am able to demonstrate a knowledge and understanding of injury producing mechanisms and biomechanics.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 7

I am able to identify the components and major anatomical structures that are commonly injured in activities.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 8

I am able to evaluate injuries, provide immediate care, and to monitor a personal health and wellness.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 9

I understand and appreciate the importance of the factors that contribute to personal health and wellness.				
(5) I can perform on my own	(4) I can perform with help	(3) I have knowledge	(2) This was discussed	(1) This was not discussed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

• Reversed Options

Question 1

I have developed an understanding of the nature of the human performance laboratory, the equipment found therein, and its use to advance the concepts of physiology and kinesiology related to human movement.

- | | | | | |
|--|--|---|---|---|
| (5) I can perform on my own
<input type="radio"/> | (4) I can perform with help
<input type="radio"/> | (3) I have knowledge
<input type="radio"/> | (2) This was discussed
<input type="radio"/> | (1) This was not discussed
<input type="radio"/> |
|--|--|---|---|---|

• Reversed Options

Question 2

I am able to relate changes in selected muscle groups using electromyographic (EMG) instrumentation.

- | | | | | |
|--|--|---|---|---|
| (5) I can perform on my own
<input type="radio"/> | (4) I can perform with help
<input type="radio"/> | (3) I have knowledge
<input type="radio"/> | (2) This was discussed
<input type="radio"/> | (1) This was not discussed
<input type="radio"/> |
|--|--|---|---|---|

• Reversed Options

Question 3

I am able to understand and am prepared to relate the EMG changes to specific movements typical of physical education settings while considering varying muscle load conditions.

- | | | | | |
|--|--|---|---|---|
| (5) I can perform on my own
<input type="radio"/> | (4) I can perform with help
<input type="radio"/> | (3) I have knowledge
<input type="radio"/> | (2) This was discussed
<input type="radio"/> | (1) This was not discussed
<input type="radio"/> |
|--|--|---|---|---|

• Reversed Options

Question 4

I am able to prepare and experience qualitative and quantitative measurements of various musculoskeletal articulations using the CYBEX.

- | | | | | |
|--|--|---|---|---|
| (5) I can perform on my own
<input type="radio"/> | (4) I can perform with help
<input type="radio"/> | (3) I have knowledge
<input type="radio"/> | (2) This was discussed
<input type="radio"/> | (1) This was not discussed
<input type="radio"/> |
|--|--|---|---|---|

• Reversed Options

Question 5

I have developed an understanding of the value of quadriceps to hamstring muscle group ratios as they relate to knee joint articulation safety.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I have become familiar with various work inducement equipment used in the lab setting such as the bicycle ergo meter, treadmill.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

I have experienced and can administer a physical work capacity test using the various work inducement equipment.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

I have experienced and can administer physical work capacity tests while estimating several parameters such as oxygen intake and oxygen debt leading to energy expenditure and efficiency.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

I have observed and experienced changes in ventilation during varying intensities of exercise.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 10

I understand, observe, and become proficient in measuring cardiovascular adjustments to exercise both at low and high intensities while recording the electrocardiographic changes and blood pressure variations.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 11

Become acquainted with and experience testing procedures used to measure body composition to include under-water weight procedures, skinfolds, bioelectrical impedance and Futrex techniques.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 12

Gain practical experience assessing blood pressure using anaeroid, digital, and mercury sphygmomanometers.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 1

I can describe the history of kinesiology/biomechanics from Aristotle to the present.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 2

I can describe and apply the concepts and laws developed by individuals from Aristotle to the present.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 3

I can describe the human skeletal framework and its movements.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 4

I can describe skeletal muscle structure, function, and coordination.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 5

I can describe the neuromuscular basis of human motion.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

I can describe, identify, and/or list the articulations of the shoulder girdle.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

I can identify and describe the location and functions of the muscles of the shoulder girdle including the Trapezius, Rhomboids, Levator scapulae, Subclavius, Serratus anterior, and the Pectoralis minor.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

I can describe, identify, and/or list the lever systems typical of the shoulder girdle, including the fulcrum, force arm, resistance arm, point of force, resistance, and line of pull.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

I can describe, identify, and/or list the movements of the shoulder girdle as they are viewed mathematically and according to planes and axes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 10

I can describe, identify, and/or list the structure, functions, and movements of the shoulder joint.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 11

I can identify and describe the muscles of the shoulder joint according to their location and name and including the Pectoralis major, Coracobrachialis, Subscapularis, Biceps brachii, Deltoid, Supraspinatus, Infraspinatus, Teres minor, Latissimus dorsi, Teres major, and the Triceps brachii (long head).

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 12

I can identify and describe the the lever systems typical of the shoulder joint, including the fulcrum, force arm, resistance arm, point of force, resistance, and line of pull.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 13

I can describe and identify and/or list the movements of the shoulder joint as they are viewed mathematically and according to planes and axes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 14

I can describe, identify, and/or list the structure, functions, and movements of the elbow joint.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 15

I can describe and identify the muscles of the elbow joint according to their location and name to include the Biceps brachii, Triceps brachii, Brachialis, Anconeus, Brachioradialis, Supinator, Pronator teres, and the Pronator quadratus.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 16

I can describe and identify and/or list the lever systems typical of the elbow joint, including the fulcrum, force arm, resistance arm, point of force, resistance, and line of pull.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 17

I can describe and identify and/or list the movements of the elbow joint viewed mathematically, and according to planes and axes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 18

I can describe and identify and/or list the structure, functions, and movements of the wrist, hand, and fingers.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 19

I can describe and identify the muscles which cause movement of the wrist, hand, and fingers according to their location and name including the flexors and extensors of the wrist, movers of the fingers, and movers of the thumb.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 20

I have developed an understanding of the movements of the wrist, hand and fingers as they are viewed according to planes and axes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 21

I have developed knowledge of the structure, functions, and movements of the hip joint (acetabular femoral articulation).

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 22

I can describe, identify and/or list the muscles of the hip joint according to their location and name to include the Iliopsoas, Pectineus, Rectus femoris, Sartorius, Tensor fasciae latae, Biceps femoris, Semimembranosus, Semitendinosus, Gluteus maximus, medius, and minimus, Six deep outward rotators, Adductor brevis, longus, magnus, and the Gracilis.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 23

I can describe, identify and/or list the lever systems typical of the hip joint, including the fulcrum, force arm, resistance, arm, point of force, resistance, and line of pull.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 24

I can describe, identify and/or list the hip joint movements mathematically and according to planes and axes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 25

I can describe, identify and/or list the structure, function, and movements of the knee joint.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 26

I can describe and identify the muscles which move the knee joint according to their name and location to include the Rectus femoris and the three Vasti's, the "Hamstrings," the Sartorius, Gracilis, Popliteus, and Gastrocnemius.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 27

I can describe, identify and/or list the lever systems typical of the knee joint including the fulcrum, force, arm, resistance arm, point of force, resistance, and line of pull.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 28

I can describe, identify and/or list the knee joint movements mathematically and according to planes and axes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 29

I can describe, identify and/or list the structure, function, and movements of the ankle and foot.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 30

I can describe and identify the extrinsic muscles which move the ankle and foot according to name and location to include the Tibialis anterior, Extensor digitorum longus, Extensor hallucis longus, Peroneus longus, Peroneus brevis, Gastrocnemius, Soleus, Tibialis posterior, Flexor digitorum longus, and the Flexor hallucis longus.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 31

I can describe, identify and/or list the movements of the ankle and foot as they are viewed according to planes and axes.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 32

I can describe, identify and/or list the structure, function and movements of the vertebral column and thorax.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 33

I can describe and identify the muscles responsible for movements of the vertebral column and thorax according to name and location to include the head and neck flexors, thoracic and lumbar vertebral flexors, thoracic and lumbar vertebral lateral flexors, and the extensors of the head and vertebral column.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 34

I can define the terminology typical of biomechanics such as mechanics, biomechanics, kinematics, kinetics, statics, dynamics and how each relates to biomechanical study.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 35

I can define, convert and apply English and the metric system units of measurement employed in biomechanics.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 36

I can describe, identify and/or list the nature of scalar and vector quantities and use trigonometric methods as well as those based on the right angled triangle.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 37

I can identify the kinds of motion experienced by the human body, and describe the factors that cause motion.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 38

I can identify, define and use the terms such as linear and rotary motion, displacement, distance, speed, velocity, and acceleration.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 39

I can identify, define and use terms as they apply to linear motion such as force, inertia, mass, weight, momentum, and impulse.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 40

I can describe, identify and apply the terms magnitude, direction, and point of application of force.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 41

I can describe and/or relate Newton's laws as they apply to linear motion, including the laws of inertia, acceleration, and momentum.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 42

I can define, describe, apply and/or identify terms such as eccentric force, torque, force, force arm, resistance, resistance arm, biomechanical fulcrums and levers in a biomechanical sense.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 43

I can relate speed, range of motion, and mechanical advantage to the properties of given lever systems.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 44

I can define, identify and/or apply the laws of Newton as they relate to rotary motion.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 45

I can define the term center of gravity, and explain the basis for its location in the human body.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 46

I can state the principles of stability and understand their relationship to equilibrium.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 47

I can apply the major components of a biomechanical analysis.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 1

I am able to describe factors influencing exercise physiology and fitness over the past century.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 2

I am able to discuss control of the internal environment.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 3

I am able to develop a knowledge and understanding about the role and relationships of ATP, muscle contractions, and the metabolic systems.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 4

Discuss the biochemical pathways involved in anaerobic and aerobic ATP production.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 5

I am able to demonstrate an understanding of the process by which the cardio respiratory system influences human performance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 6

Discuss the relationship between exercise intensity/duration and the bioenergetic pathways that are most responsible for the production of ATP during various types of exercise.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 7

Discuss the hormonal response to exercise.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 8

Describe the nervous system's structure and control of movement.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 9

Discuss major biochemical and mechanical properties of human skeletal muscle fiber types and their relationship with performance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 10

Describe the circulatory responses to exercise.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 11

Explain the principal physiological function of the pulmonary system and the ventilator response to exercise.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 12

Explain the importance of acid-base regulation to exercise performance.

(5) I can perform on my own
☐

(4) I can perform with help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not discussed
☐

• Reversed Options

Question 13

Discuss the physiological changes that occur in response to variances in temperature.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 14

Discuss the physiology of training and the effect on V02 max, performance, homeostasis, and strength.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 15

Discuss various components of the physiology of health and fitness.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options

Question 16

Discuss various components of the physiology of performance.

(5) I can perform on my
own
☐

(4) I can perform with
help
☐

(3) I have knowledge
☐

(2) This was discussed
☐

(1) This was not
discussed
☐

• Reversed Options