

Agenda
General Education Committee Meeting
10:00 am, November, 14, 2017
RCB 355

1. Approval of Minutes
2. New Course Proposal PHIL 2053
3. New Course Proposal BDA 2023
4. Assessment Mechanisms

Approved 12-12-17

**The Minutes of
THE GENERAL EDUCATION COMMITTEE
OF
ARKANSAS TECH UNIVERSITY**

The General Education Committee met Wednesday, November 14, 2017 at 10:00 a.m. in Brown 355. The following were present:

Dr. Christine Austin

Dr. David Blanks

Cheryl Chaney

Katy Dodd

Dr. Mohamed Ibrahim

Tkeyah McDaniel

Dr. Thomas Nupp

Karen Riddell

Dr. Jeremy Schwehm

Dr. David Ward

Dr. Alaric Williams

Absent: Dr. Pam Carr, Dr. Cathi McMahan

Guest: Dr. Jeff Mitchell, Dr. Kim Troboy, Ms. Tammy Weaver

Minutes

Dr. Ibrahim opened the meeting and asked for a motion to approve the minutes of the October 18th meeting. Dr. Schwehm made a motion to approve, Dr. Ward seconded the motion. Motion approved.

PHIL 2053

Dr. Ibrahim asked Ms. Weaver to address the committee regarding the two courses that are being requested to be added to the options for General Education. Ms. Weaver started with PHIL 2053 Introduction to Critical Thinking and told the committee the request was to add this to the list of courses that can be used to fulfill the Fine Arts and Humanities requirement. She commented that she thought it was good that they had added the ACTS course number on the proposal and she felt the course did meet the criteria for ACTS. She said Dr. Blanks could answer any specific questions from the committee. Dr. Blanks said that he would let Dr. Jeff Mitchell address the questions regarding content of the course, but he did want to comment that on the General Education Course Addition Assessment Form, number H, it asks "How does this General Education course fit in the current state of General Education Courses?" He said that ADHE lists two Philosophy courses and we currently only offer one of them. That is why we need this course.

Dr. Schwehm suggested they put a more detailed course outline and course schedule broken up by topics on the form. He thought if they could do this before it went to the Curriculum Committee and the Faculty Senate it would help the proposal go through with fewer questions. He also said he liked that they addressed in the proposal which general education objective this course would meet (critical thinking) and that it was very clear what the course was meant to do. The committee suggested adding to the form exactly which General Education Requirement the course would fulfill. Even though it was pretty clear it would fit in the Fine Art and Humanities section, they thought it would be

better to have it spelled out. Dr. Blanks asked Ms. Weaver if they needed to make these edits and then give it back to the General Education Committee. Ms. Weaver suggested just adding an “e” section on the form under the section for catalog description (since it does not need to be part of the course description) to address this and resend it to her. The committee then discussed whether that needed to be something added to all descriptions of courses that meet a general education requirement. Ms. Weaver thought that would be a good idea and something this committee could recommend. She said this could be similar to when they added the ACTS course equivalent number to the descriptions. She suggested giving the Registrar’s Office a blanket approval to go in and add that to all the courses in the general education listing. She also said she and Dr. Austin were looking at modifying their forms and could add this to the forms. She said she still had time to get it on the agenda for the November 20th Curriculum Committee meeting if the committee wanted to recommend this.

Dr. Schwehm suggested that another modification to the General Education Course Addition Assessment Form be to change the “provide up to three or four General Education student learning outcomes students will achieve after completing the course” since the committee is trying to streamline the process, but felt that the committee needed to have some clear guidelines on what exactly they wanted before making that change.

Dr. Ibrahim asked Ms. Weaver if they could take the proposal to add the general education requirement to the course descriptions to the Curriculum Committee without the minutes being approved. Ms. Weaver said they could go ahead and take it to the committee; she just needed a recommendation from the committee. Dr. Nupp made a motion to add general education requirements to the course descriptions. Dr. Schwehm seconded the motion. Motion passed. Ms. Weaver said the modification to the actual form didn’t need to go to the committee for approval as they already have approval to make changes to the form unless it was a complete overhaul of the form. The committee asked Ms. Riddell to type up a recommendation and send it out to everyone for approval before sending it to Ms. Weaver to take to the Curriculum Committee.

Dr. Ward made a motion to approve adding PHIL 2053 Introduction to Critical Thinking to the list of general education courses. Dr. Nupp seconded the motion. Motion passed. Dr. Mitchell left the meeting.

BDA 2023 Ms. Weaver told the committee BDA 2023 Introduction to Data Visualization is a new course being offered by the College of Business in which quantitative reasoning is the most important part of the course. They would like to have this course be one of the offerings to satisfy the math general education requirement. She thought this proposal would also need to state more clearly on the course description which requirement it will fulfill. She thought this one was more unusual, so she gave the committee some history on how this would relate to students with disabilities. She said there is a common form of disability called

dyscalculia that affects many students. The student is not able to calculate mathematical formulas. This is part of what brought about the shift from College Algebra being the only option for the general education math to allowing College Mathematics. If you look at the course description for this course, it is quantitative reasoning. Ms. Weaver said there are no other schools in Arkansas that have a course outside of the Mathematics department fulfilling the general education math requirement, so if we allow this, we would be setting a precedent. She said she has seen an increase in the number of students requesting waivers for the math requirement. She said we don't actually waive this requirement, but the disability act does say we have to make accommodations. One way we have been doing that is allowing a "D" for the course when a "C" or better is Arkansas Tech's policy (this is not a state policy though). We don't currently have a course substitution for this. ADHE does not have to approve a course for substitution, but the course would have to meet the learning outcome for general education. She said that even though there are no other schools in Arkansas that have a course outside of Math for the requirement, there are other schools nation-wide. Ms. Weaver then turned it over to Dr. Kim Troboy to discuss the course. Dr. Troboy started by saying that Data Analytics is huge nation-wide and this is a first step in analytics. She said Dr. Abdelrahman had asked them for an analytics course that everyone could take and this would fit that. She told the committee she was not familiar with putting together a general education course, so she was open to suggestions from the committee. She said what they wanted to do, was to get students excited about math by using visualization. She said they would expect to teach such things as basic descriptive statistics and proportions, averages, means, and median and when to use each. Students would use such programs as Excel and Access. She also said they would be open to having faculty from the Math department teaching this course. She said this course would help students with human cognitive processing and how they take in information. She said that BDA program is a STEM approved program.

The committee discussed how the learning outcomes of the course would fit in to the Quantitative Reasoning criteria. Ms. Weaver said she could gather that information and get it to the committee. The committee then discussed that this proposal would need have the support of the Math department before going to the Curriculum Committee and Faculty Senate. The committee had several questions about using the course as a substitution for math, such as, would this just be a substitution for students with a proven disability or could it be used by any student; what majors would be able to use this and how many students are requesting substitutions for math? Some members also had concerns about students not being required to take a Math course, especially if they are in teacher education where they will be required to teach math to students. Ms. Weaver and Dr. Austin assured the committee that there are lots of math courses required in the education programs in addition to the general education requirement. After discussion, the committee decided they needed more time to research this course before approving it for a general education course. The course could still go to the Curriculum Committee for approval as a new course, just not as an option for

general education. Ms. Weaver also voiced her concern over Arkansas Tech approving this as a general education option when the other universities in the state did not have this option. She felt this could cause problems with transfer students. She felt it really needed to be approved by ADHE before we started using it as a general education course. The committee suggested going ahead with the new course proposal, but to take out the general education section. They could then offer the course and work on what exactly they want it to be and then bring it back to the General Education Committee possibly in the summer for reconsideration as a general education course. Dr. Troboy and Ms. Weaver left the meeting.

Assessment Dr. Ibrahim asked Dr. Austin to speak to the committee about assessment mechanisms. Dr. Austin distributed some handouts on General Education – Institution-wide Trends, Total General Education Enabled Courses Completing Data Entry and Faculty Participation in CPGE Assessment. She told the committee the Faculty Participation in CPGE Assessment represents the last seven years of data in the CPGE system and pointed out that participation has been dropping steadily. She said she had started sending out emails last spring reminding people to enter the data in the system and has seen slight improvement. She will continue to send the emails and she would like to see up to 80% participation if possible. The General Education Institution-wide Trend is the information she was able to get by working with Wyatt in Institutional Research to get COMS and Electrical Engineering courses taken out of the general education system. She pointed out that this had made a difference in the Quantitative Reasoning and Scientific Reasoning blocks and makes the data a little more valid. Dr. Schwehm asked Dr. Austin exactly what the numbers at the bottom of the charts meant. She said they were the percentage of students with 35 hours or less that had passed that particular general education requirement. It is listed by colleges. Dr. Ibrahim asked if there were any particular reasons that people were not entering the data. Dr. Austin said one was the number of new faculty who hadn't been trained and another was that people just didn't remember unless she sent out reminders. Dr. Austin said the system has needed edited and that has now happened, so it should be better. She said Dr. Erin Clair has added the Arts and Humanities and that has been very helpful. She said there are still a lot of questions about what is being measured, but these charts will at least give everyone an idea of how we are doing.

Dr. Schwehm told the committee he had met with Ms. Kristi Spittler-Brown in the Math department regarding the Blackboard shell and she suggested instead of having one shell for each person, creating two assessment shells each semester; one for MATH 1003 and one for MATH 1113. Every person teaching those courses that semester could have access to the shells to put in the assessment. Dr. Schwehm said he would be meeting with Ken Wester to see if they can code it to link individual students by T# to the faculty so that Ms. Spittler-Brown can then download it and have all the assessment pieces for that course. He said that Ms. Spittler-Brown said it was okay if it could not be done this way, and that she was




very excited about having the assessment data all in one place. Ms. Spittler-Brown would like to have all her exams in to Blackboard so that they will be worth the same credit as a regular exam. By giving them credit for doing the exam, she thinks she will get more students to complete it. Dr. Schwehm said that OIS has already created a shell in Blackboard called Assessment-MATH 1003. He and Ms. Spittler-Brown are already in the course and after he speaks with Mr. Wester, she will try to build something out that would be usable. Dr. Ibrahim asked if there was time to try this out this semester. Dr. Schwehm said he had talked to her about doing this next semester. Dr. Ibrahim asked if we could use this one as a pilot and make sure it is working smoothly before adding others. Dr. Schwehm said Ms. Spittler-Brown was okay with being the pilot, but she had to make sure there was enough lab space for the students to take it. She didn't think it would be an issue. Dr. Ward said he had spoken to some of the other Department Heads and he felt that we definitely need to make sure it is working smoothly before putting it out to everyone as they were mostly happy with the systems they were already using. He thought it should be put out in stages instead of all at once and he would be happy to be a second level of test. Dr. Nupp suggested coordinating the tests with final grades so that everyone would remember. Dr. Schwehm commented that the gradebooks in Blackboard could be downloaded in to Excel and sent to Dr. Austin making it less work for faculty. She said that would work. Dr. Austin said she had also gotten her GA to put all the value rubrics in to Blackboard format, so she will now get them put in to the General Education Blackboard shell.

Adjourn 11:00 a.m.

**Arkansas Tech University
REQUEST FOR COURSE ADDITION**

RECEIVED
JUN 30 2017

Registrar's Office

TO:	Curriculum Committee	
FROM (Initiating Department):	History and Political Science	
DATE SUBMITTED:	March 20th, 2017	
Title	Signature	Date
Department Head David Blanks		6/29/17
Dean Jeff Woods		
Teacher Education Council (if applicable)		
Graduate Council (if applicable)		
Registrar		7/17/17
Vice President for Academic Affairs		

Course Subject: (e.g., ACCT, ENGL) PHIL	Course Number: (e.g., 1003) 2023 2053	Effective Term: 2018 <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 Critical Thinking		
Banner Title: (limited to 30 characters, including spaces, capitalize all letters — this will display on the transcript) Intro to Critical Thinking		
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"/> No 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): <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	<input type="radio"/> 18 Activity Course	<input type="radio"/> 19 Seminar
		<input type="radio"/> 98 Other
Does this course require a fee? <input type="radio"/> Yes <input checked="" type="radio"/> No How Much? <input type="text"/> Select Fee Type <input type="text"/>		
If selected other list fee type: <input type="text"/>		
<input type="checkbox"/> Elective	<input 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? <input type="text"/>		
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)		
<ul style="list-style-type: none"> a. Course subject b. Course number c. Catalog course title d. Catalog description <ul style="list-style-type: none"> 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). 		
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		
Attach the Course Addition Assessment Form. The form is located on the Assessment & Institutional Effectiveness web page at http://www.atu.edu/assessment/		
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 .		

RECEIVED

JUN 30 2017

Registrar's Off

- a. Course subject: PHIL
- b. Course number: ~~2023~~ 2053
- c. Catalog course title: Introduction to Critical Thinking
- d. Catalog description: The course will initiate the student in the art of analyzing and evaluating his or her thinking in order to make it more potent and persuasive. Topics will include the analysis of argument, the theory of definition, the experimental method of inquiry, and the informal fallacies.
 - 1. Arkansas Course Transfer System (ACTS) course number, if applicable: PHIL 1003
 - 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:

Thinking is a native capacity in human beings, but if we are to achieve our full intellectual potential as individuals, this ability must be cultivated. In its initial form, thought is primarily a natural phenomenon, and unfolds as part of the general process of sensorimotor development in the very young. However, despite the fact that the basic capability for cognition and problem solving is inborn, what we term good thinking is not primarily a personal, but rather a cultural and historical achievement. Not all mental habits are equally effective; indeed, some are even counterproductive. Over time, logicians have identified both the good habits of mind as well as the bad ones. This cognitive know-how is the product of centuries' worth of scholarly investigation and collaboration.

If the individual were to rely exclusively upon him- or herself as a guide to intellectual development, the progress that any one person would achieve within the course of a lifetime would be scant indeed. It would be comparable to expecting someone to employ only that technology which he or she has personally discovered. Obviously, virtually anyone who was forced to live under such a constraint would have a highly primitive manner of existence.

Fortunately, however, just as we benefit from the accumulated technological lore of our ancestors, so can we profit from their discoveries in regard to the most effective ways of thinking. In order to do so, we must learn to judge our reasoning according to certain standards. Indeed, we can only achieve our full cognitive potential by so internalizing these approved forms and techniques through training and practice that they become second nature. What we have termed "critical thinking" is the course of study which proposes to so equip the student.

- 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:

Hurley, *A Concise Introduction to Logic*

Also, various articles from the *Opposing Viewpoints* database available through the Tech library

g. Bibliography (supplemental reading list):

Dewey, *How We Think*

Copi and Cohen, *An Introduction to Logic*

h. Justification/rationale for the course:

The true hallmark of a college education is arguably the ability to think for oneself. Although ideally this capacity should be fostered across the entire undergraduate curriculum, the central importance of critical thinking to the mission of higher education warrants the existence of a course specifically dedicated to cultivating the skills required for intellectual autonomy. Fortunately, a body of learning that has as its subject matter the general principles of critical reasoning does, in fact, exist, and is constituted by that division of logic commonly referred to as "informal".

i. Course objectives:

- (1) Learn how to distinguish arguments from non-arguments, and how to identify premises and conclusions.
- (2) Learn to evaluate arguments in terms of both factual and inferential claims.
- (3) Gain an understanding of the influence exerted by the individual's worldview over his or her reasoning process.

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):

One of the university's major general education goals is to promote the student's ability to think critically. (Enough said!)

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

Assessment methods will include both tests and homework assignments.

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

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

l. *Elements of the worldview:*

1. Dewey=s theory of human nature
2. Piaget=s theory of cognitive development
3. Dewey=s five phases of reflective thinking

4. Mead=s theory of the significant symbol
5. Hallpike=s stages of social evolution
6. Kohlberg=s stages of moral consciousness

II. *The Theory of Definition:*

1. Varieties of Meaning
2. The Intension and Extension of Terms
3. Definitions and Their Purposes
4. Definitional Techniques
5. Criteria for Lexical Definitions

III. *Informal Fallacies:*

1. Fallacies in General
2. Fallacies of Relevance
3. Fallacies of Weak Induction
4. Fallacies of Presumption, Ambiguity, and Grammatical Analogy
5. The classical pattern for written argument

In addition to these topics, discussion articles on a wide variety of matters subject to current public debate will be selected from the *Opposing Viewpoints* database and assigned throughout the course of the semester.

Arkansas Tech University

General Education Course Addition Assessment Form

Our Mission

Tech is dedicated to student success, access, and excellence as a responsive campus community providing opportunities for progressive intellectual development and civic engagement. Embracing and expanding upon its technological traditions, Tech inspires and empowers members of the community to achieve their goals while striving for the betterment of Arkansas, the nation, and the world.

Provide an answer for each question. Your answers are to be typed single spaced.

- a. How does this course fit with the university mission? The university's current mission statement asserts that Tech aims to provide "opportunities for progressive intellectual development". A course focused upon improving the student's ability to think critically is clearly consistent with this goal.
- b. How does this course align with the General Education Program? Given that one of the targeted learning outcomes of the gen ed curriculum is the ability to "think critically," the proposed course would appear to be well-aligned with the program.
- c. If this course is mandated by an accrediting or certifying agency, include the directive. If not, state not applicable. n/a
- d. Provide up to three or four General Education student learning outcomes students will achieve after completing this course. In addition to promoting the capacity to think critically, it is anticipated that the course will assist the student in communicating effectively and in developing ethical perspectives. The latter goals will be primarily achieved through the use of discussion articles which will be selected from the *Opposing Viewpoints* database. Typically, a pair of articles will be chosen that represent opposing sides in a contemporary debate over a matter of public concern (e.g., abortion, gun control, the death penalty, etc.). Overall, the learning outcomes of the course will conform to those listed in the ACTS description for Introduction to Critical Thinking. Namely, it is expected that the student will "make decisions using verifiable information, critically examine information, demonstrate problem-solving skills, and evaluate [his or her] own reasoning and the reasoning of others."
- e. What assessment tool or measure will you use to assess General Education student learning? Potential means of assessment include tests, quizzes, homework assignments, and participation in class discussions.
- f. What will students demonstrate, represent, or produce to provide evidence of their discipline specific and General Education learning outcomes? Ideally, students will acquire the ability to become self-corrective thinkers who continuously monitor the quality of their own thinking by appealing to objective standards of evidence and logical inference.

- g. Provide an example or examples of student learning assessment evidence which supports the addition of this General Education course. The non-profit Foundation for Critical Thinking has well documented the need for an educational reform based upon critical thinking in the nation's public schools and universities. More information about the need for this reform can be found at <http://www.criticalthinking.org//>
- h. How does this General Education course fit in the current state of General Education courses? Include Arkansas educational institution comparisons. The Arkansas Course Transfer System (ACTS) includes Introduction to Critical Thinking (PHIL 1003) as one of its two listings for philosophy, the other one being Introduction to Philosophy (PHIL 1103). Although we offer the latter as part of our gen ed program, there is currently no equivalent for the former. Several of our sister institutions, including the U of A, UCA, UALR, and ASU, currently offer an introductory level course in critical thinking of the type being proposed here.

68. MUSC1003 Music Appreciation

General Description:

Introductory survey of music including the study of elements and forms of music, selected musical works, music terminology, important musical genres, periods, and composers, and an introduction to major musical instruments.

Expected Student Learning Outcomes:

The successful student will be able to:

- Identify and analyze the elements and forms of music
- Identify selected works of various composers
- Identify and explain music terminology
- Identify various genres, periods, and major composers
- Analyze the role of music and musicians within historical contexts
- Attend a live performance and write a critique of the experience using terminology appropriate to the course
- Differentiate various instruments aurally and visually

69. PHIL1003 Introduction to Critical Thinking

General Description:

The study of applied reasoning including:

- Analysis of arguments
- Informal and formal fallacies
- Syllogisms
- Construction of definitions
- Scientific reasoning

Expected Student Learning Outcomes:

The student will:

- Make decisions using verifiable information
- Critically examine information
- Demonstrate problem-solving skills
- Evaluate one's own reasoning and the reasoning of others

ACTS Course List

1. ANTH1013 Introduction to Anthropology
2. ANTH2013 Cultural Anthropology
3. ARTA1003 Art Appreciation
4. ARTA2003 Art History Survey I
5. ARTA2103 Art History Survey II
6. BIOL1004 Biology for Non-Majors
7. BIOL1014 Biology for Majors
8. BIOL1024 Botany for Non-Majors
9. BIOL1034 Botany for Majors
10. BIOL1054 Zoology
11. BIOL2004 Introductory Microbiology
12. BIOL2404 Human Anatomy and Physiology I
13. BIOL2414 Human Anatomy and Physiology II
14. CHEM1004 Chemistry I for General Education
15. CHEM1214 Chemistry for Health Related Professions
16. CHEM1224 Chemistry II for Health Related Professions
17. CHEM1414 Chemistry I for Science Majors
18. CHEM1424 Chemistry II for Science Majors
19. CPSI1003 Introduction to Computers
20. CRJU1023 Introduction to Criminal Justice
21. DRAM1003 Theatre Appreciation
22. ECON2103 Principles of Macroeconomics
23. ECON2203 Principles of Microeconomics
24. ENGL1013 Composition I
25. ENGL1023 Composition II
26. ENGL2013 Introduction to Creative Writing
27. ENGL2023 Introduction to Technical Writing
28. ENGL2113 World Literature I
29. ENGL2123 World Literature II
30. ENGL2213 Western Literature I
31. ENGL2223 Western Literature II
32. ENGL2653 American Literature I
33. ENGL2663 American Literature II
34. ENGL2673 British Literature I
35. ENGL2683 British Literature II
36. FREN1013 French I
37. FREN1023 French II
38. FREN2013 French III
39. FREN2023 French IV
40. GEOG1103 Introduction to Geography
41. GEOG1113 Human Geography
42. GEOG2103 World Regional Geography
43. GEOG2113 Cultural Geography
44. GEOG2223 Physical Geography

45. GEOL1114 Physical Geology
46. GEOL1124 Environmental Geology
47. GEOL1134 Historical Geology
48. GERM1013 German I
49. GERM1023 German II
50. GERM2013 German III
51. GERM2023 German IV
52. HEAL1003 Personal Health
53. HIST1113 World Civilizations I
54. HIST1123 World Civilizations II
55. HIST1213 Western Civilization I
56. HIST1223 Western Civilization II
57. HIST2113 United States History I
58. HIST2123 United States History II
59. MATH1003 College Math
60. MATH1103 College Algebra
61. MATH1203 Plane Trigonometry
62. MATH1305 Pre-Calculus
63. MATH2103 Introduction to Statistics
64. MATH2203 Survey of Calculus
65. MATH2405 Calculus I
66. MATH2505 Calculus II
67. MATH2603 Calculus III
68. MUSC1003 Music Appreciation
69. PHIL1003 Introduction to Critical Thinking
70. PHIL1103 Philosophy
71. PHSC1004 Physical Science
72. PHSC1104 Earth Science
73. PHSC1204 Introduction to Astronomy
74. PHYS2014 Algebra/Trigonometry-Based Physics I
75. PHYS2024 Algebra/Trigonometry-Based Physics II
76. PHYS2034 Calculus-Based Physics I
77. PHYS2044 Calculus-Based Physics II
78. PLSC2003 American National Government
79. PLSC2103 State and Local Government
80. PSYC1103 General Psychology
81. PSYC2103 Developmental Psychology
82. SOCI1013 Introduction to Sociology
83. SOCI2013 Social Problems
84. SPAN1013 Spanish I
85. SPAN1023 Spanish II
86. SPAN2013 Spanish III
87. SPAN2023 Spanish IV
88. SPCH1003 Introduction to Oral Communication
89. MATH1113 Quantitative Literacy/Mathematical Reasoning

Arkansas Tech University

General Education Course Addition Assessment Form

Our Mission

Tech is dedicated to student success, access, and excellence as a responsive campus community providing opportunities for progressive intellectual development and civic engagement. Embracing and expanding upon its technological traditions, Tech inspires and empowers members of the community to achieve their goals while striving for the betterment of Arkansas, the nation, and the world.

Provide an answer for each question. Your answers are to be typed single spaced.

a. How does this course fit with the university mission?

BDA 2023 Introduction to Data Visualization aligns with the University mission by advancing *'progressive intellectual development'* in basic quantitative and technical skills that are in high demand by most businesses, government agencies, and non-profit organizations. The latter two types of organizations are relevant to the *'civic engagement'* aspect of the University mission. Data visualization skills will empower students to identify and illuminate important insights and skillfully display them to guide and improve decision-making. These skills will advance students' critical thinking skills because they will be better equipped to evaluate data and eliminate bias from the process of turning data into knowledge. Students will enhance their written and oral communication skills in written reports and presentations of their data visualizations. These skills will empower students to advance their career goals as well as address the national need for more STEM skills.

b. How does this course align with the General Education Program?

BDA 2023 aligns with the General Education Goal *'Communicate Effectively'* by providing students with an opportunity to convey insights from simple data analysis in the form of a variety of charting methods. Students will also write reports and make presentations.

BDA 2023 aligns with the Scientific and Quantitative Reasoning by enabling students to present data in graphical format

BDA 2023 aligns with the Scientific and Quantitative Reasoning by enabling students to perform a quantitative analysis of a situation and make a decision based on the outcome.

BDA 2023 aligns with the General Education Goal *'Apply scientific and quantitative reasoning'* by providing students with an opportunity to learn to do simple mathematical analysis of data and to develop their quantitative reasoning by learning to create insights from basic descriptive measures of data sets.

The content of BDA 2023 can apply to any discipline that has quantitative measures.

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

d. Provide up to three or four General Education student learning outcomes students will achieve after completing this course.

Students will (1) understand the concepts, methods, and characteristics of basic descriptive statistics and simple mathematical modeling techniques; (2) understand the concepts, methods, and characteristics of various forms of display techniques; (3) evaluate data quality and possible biases; and (4) learn methods to compensate for human cognitive biases in reading various forms of data visualizations.

e. What assessment tool or measure will you use to assess General Education student learning?

Exams will measure learning of basic concepts, methods, techniques, and visualization characteristics. Data analysis projects with written reports and oral presentations will measure learning about how to communicate findings and influence decision makers.

f. What will students demonstrate, represent, or produce to provide evidence of their discipline specific and General Education learning outcomes?

Students will demonstrate the ability to evaluate and correct problems in data, conduct basic descriptive statistical analysis and mathematical modeling of data, and create clear and understandable visualizations using several software applications. Students will be able to document their work and present their findings in professional reports and oral presentations.

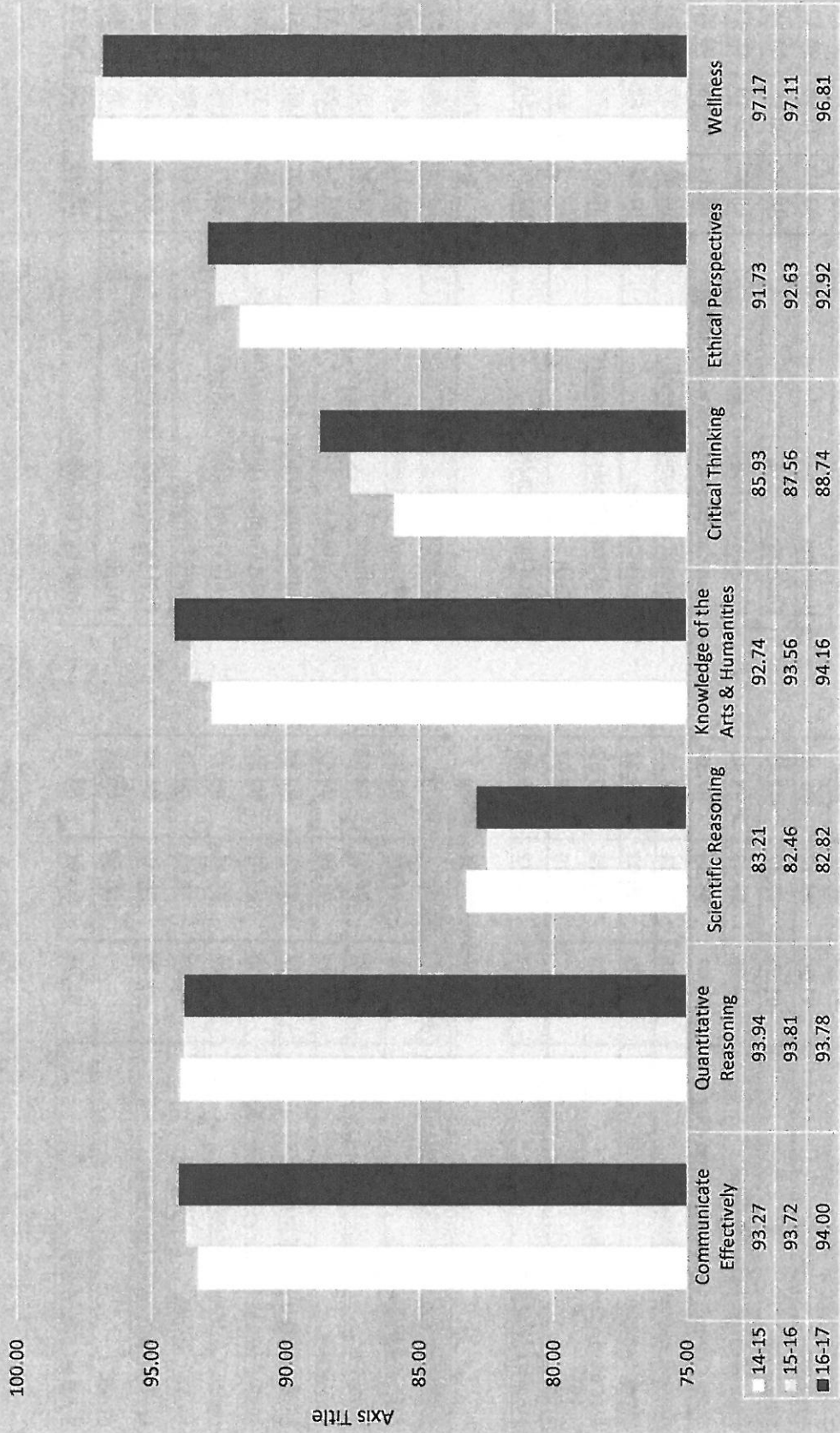
g. Provide an example or examples of student learning assessment evidence which supports the addition of this General Education course?

Environmental scanning indicates that employers need more people with basic data analysis and visualization skills and are frustrated that college graduates are not better prepared in this area. This course is intended to introduce students to basic skills in this area and interest them in continuing to learn more.

h. How does this General Education course fit in the current state of General Education courses? Include Arkansas educational institution comparisons.

This course is a new, innovative offering in the current state of General Education courses. There are no comparable general education courses at other Arkansas educational institutions.

General Education - Institution-Wide Trends (2014 - 2017)



Scientific Reasoning

COLLEGE	14-15	15-16	16-17
Arts and Humanities	82.66	80.38	81.24
Business	80.45	81.55	81.27
Education	81.03	81.40	80.74
Engineering/Applied Science	85.26	83.13	82.36
Main Campus Undeclared/Non-Deg	82.83	84.56	88.52
Natural and Health Science	87.15	87.19	88.47
Ozark Campus	80.95	80.82	83.97
Prof Study/Comm Outreach*	78.32	76.07	81.58
Total by COLUMNS	83.21	82.46	82.82

Ethical Perspectives

COLLEGE	14-15	15-16	16-17
Arts and Humanities	91.02	92.51	92.69
Business	88.52	92.03	92.01
Education	89.25	90.74	90.70
Engineering/Applied Science	93.34	93.15	93.11
Main Campus Undeclared/Non-Deg	92.45	92.39	93.33
Natural and Health Science	94.49	95.32	96.02
Ozark Campus	90.83	91.76	91.17
Prof Study/Comm Outreach*	92.36	90.68	94.74
Total by COLUMNS	91.73	92.63	92.92

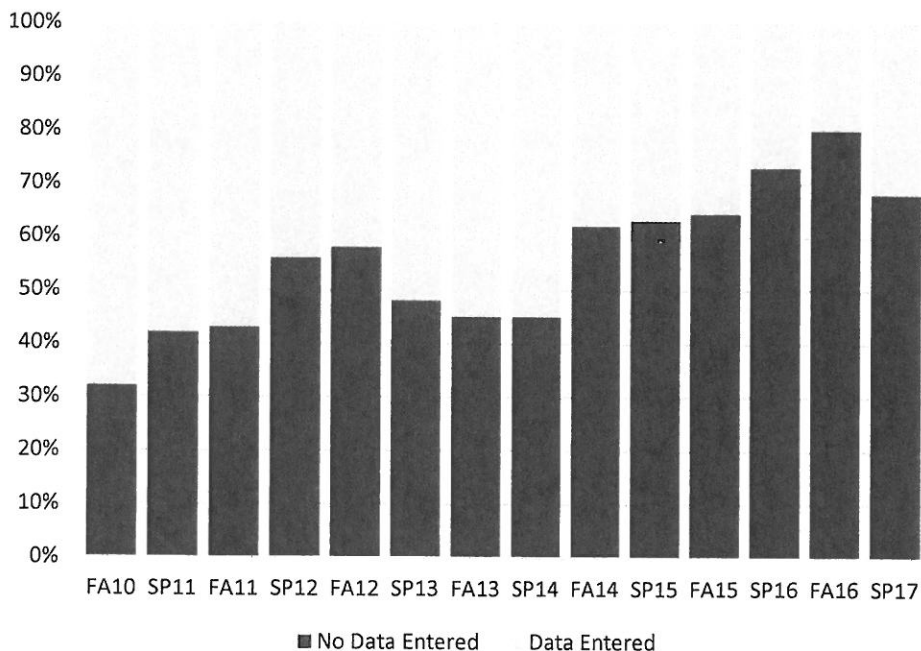
Wellness

COLLEGE	14-15	15-16	16-17
Arts and Humanities	96.67	97.65	98.08
Business	94.55	95.00	94.59
Education	97.44	96.91	95.08
Engineering/Applied Science	98.72	98.33	97.06
Main Campus Undeclared/Non-Deg	92.31	100.00	100.00
Natural and Health Science	98.15	96.61	97.22
Ozark Campus	100.00	100.00	100.00
Prof Study/Comm Outreach*	95.65	91.67	100.00
eTech		100.00	100.00
Total by COLUMNS	97.17	97.11	96.81

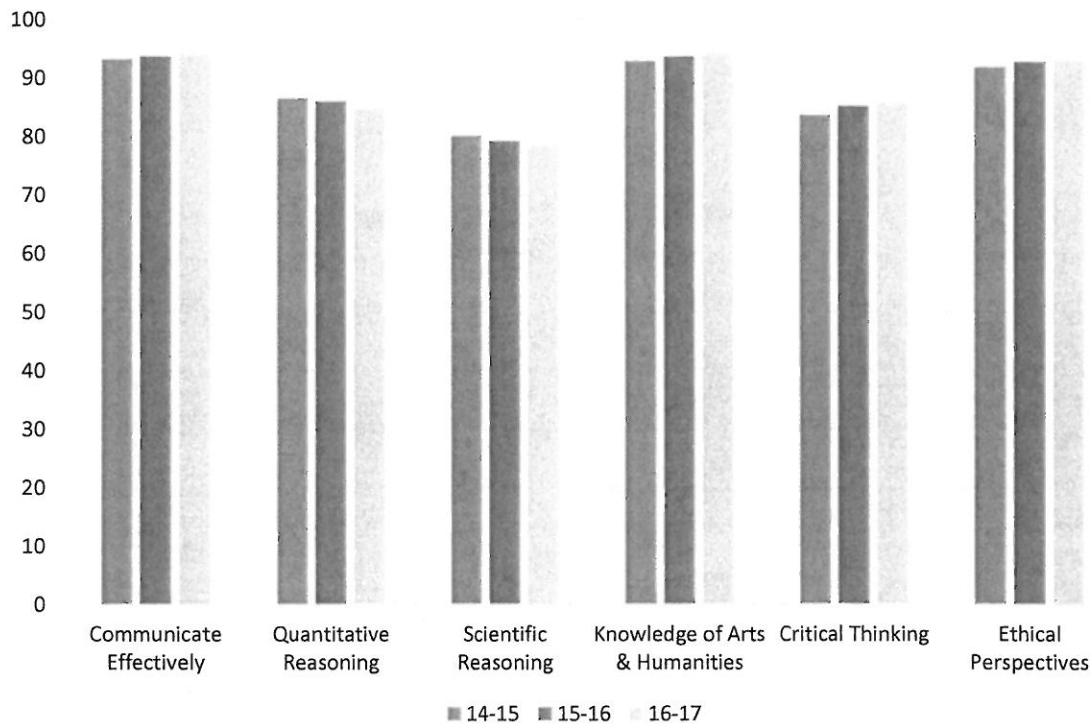
Total General Education Enabled Courses Completing Data Entry

	Semester	No Data Entered	Data Entered	Total GE Courses
Spring 2017 was the beginning of reminder emails to department heads to encourage their faculty to complete reporting for General Education Goals being addressed in their courses.	FA10	0.32	0.68	240
	SP11	0.42	0.58	197
All courses enabled for General Education goal assessment are requested to complete data capture.	FA11	0.43	0.57	253
	SP12	0.56	0.44	220
	FA12	0.58	0.42	267
	SP13	0.48	0.52	223
	FA13	0.45	0.55	271
	SP14	0.45	0.55	234
	FA14	0.62	0.38	325
	SP15	0.63	0.37	290
	FA15	0.65	0.36	336
	SP16	0.73	0.27	289
	FA16	0.8	0.2	255
	SP17	0.68	0.32	218

Faculty Participation in CPGE Assessment Fall 2010 - Spring 2017



General Education - Institution-wide Trends (2014-2017)



Limitations of Data

- General Education courses have been entered in the Course, Program, and General Education (CPGE) system.
 - Some courses not included as CPGE
 - Some courses have not entered data
 - Some courses included that are not GenEd
- Data may be skewed due to above items (particularly in Quantitative & Scientific Reasoning).
 - COMS & ELEG included in GenEd Assessment (need to be removed from GE portion of system. Several may have caused deleterious effects to Quant & Sci Reasoning outcome)
- Limited number of courses currently contributing data.
- There is no “drop dead” date for entering CPGE data. Can be added at any point. These facts might cause general education data entry to slip as a priority.
- Data collected has differing measures within each Gen Ed outcome

Following tables show the percentages of majors in each college who demonstrate successful completion (defined as a D or better) of each General Education Outcome.

General Education Trends by College Majors
(2014-15, 2015-16, 2016-17)

Communicate Effectively

COLLEGE	14-15	15-16	16-17
Arts and Humanities	93.192	93.597	93.939
Business	91.903	92.897	94.389
Education	91.985	93.439	93.365
Engineering/Applied Science	94.577	94.157	93.973
Undeclared/Non-Deg Rsvl Campus	95.064	95.502	97.333
Natural and Health Science	96.675	97.202	97.089
Ozark Campus	89.557	90.167	89.831
Prof Study/Comm Outreach*	89.577	89.831	90.625
eTech		86.539	91.875
Total by COLUMNS	93.235	93.673	94.042

Arts and Humanities

COLLEGE	14-15	15-16	16-17
Arts and Humanities	92.545	93.232	93.371
Business	93.120	93.584	93.882
Education	88.167	90.487	91.789
Engineering/Applied Science	93.610	94.152	95.562
Undeclared/Non-Deg Rsvl Campu	95.420	93.213	94.828
Natural and Health Science	94.484	96.566	97.274
Ozark Campus	92.008	92.798	92.889
Prof Study/Comm Outreach*	90.672	91.772	92.727
eTech		87.500	88.148
Total by COLUMNS	92.757	93.534	94.181

Quantitative Reasoning

COLLEGE	14-15	15-16	16-17
Arts and Humanities	92.606	90.812	87.530
Business	92.021	90.000	89.678
Education	92.558	90.909	93.197
Engineering/Applied Science	75.688	78.846	77.155
Undeclared/Non-Deg Rsvl Campus	91.875	87.920	89.655
Natural and Health Science	94.386	92.975	93.939
Ozark Campus	84.722	86.111	87.692
Prof Study/Comm Outreach*	85.484	84.000	75.000
eTech		91.667	82.857
Total by COLUMNS	86.497	85.934	84.699

Critical Thinking

COLLEGE	14-15	15-16	16-17
Arts and Humanities	84.610	84.616	85.920
Business	83.826	88.245	89.706
Education	81.138	81.661	84.077
Engineering/Applied Science	78.206	80.319	79.439
Undeclared/Non-Deg Rsvl Campu	85.686	89.711	88.372
Natural and Health Science	87.926	90.190	90.944
Ozark Campus	85.923	87.197	88.391
Prof Study/Comm Outreach*	82.143	82.489	83.334
eTech		82.906	83.152
Total by COLUMNS	83.524	85.088	85.634

Scientific Reasoning

COLLEGE	14-15	15-16	16-17
Arts and Humanities	81.728	78.517	78.105
Business	79.018	80.269	79.948
Education	80.918	81.038	80.702
Engineering/Applied Science	74.355	73.487	70.213
Undeclared/Non-Deg Rsvl Campus	79.455	81.961	87.097
Natural and Health Science	86.614	86.574	87.838
Ozark Campus	79.293	78.290	84.496
Prof Study/Comm Outreach*	78.368	76.423	79.487
eTech		77.193	75.248
Total by COLUMNS	79.976	79.111	78.475

Ethical Perspectives

COLLEGE	14-15	15-16	16-17
Arts and Humanities	91.019	92.500	92.660
Business	88.525	92.191	92.100
Education	89.060	90.516	90.380
Engineering/Applied Science	93.421	93.300	93.460
Undeclared/Non-Deg Rsvl Campu	92.414	92.193	93.151
Natural and Health Science	94.486	95.317	95.956
Ozark Campus	91.108	91.917	91.908
Prof Study/Comm Outreach*	92.361	90.683	94.737
eTech		88.044	91.971
Total by COLUMNS	91.757	92.659	93.013

General Education Trends by College

(2014-15, 2015-16, 2016-17)

COLLEGE	14-15	15-16	16-17
Arts and Humanities	93.19	93.61	93.95
Business	91.90	92.72	94.26
Education	91.98	93.47	93.43
Engineering/Applied Science	94.96	94.43	93.96
Main Campus Undeclared/Non-Deg	95.07	95.53	97.37
Natural and Health Science	96.78	97.31	97.25
Ozark Campus	89.29	90.02	89.11
Prof Study/Comm Outreach*	89.58	89.83	90.63
eTech		86.79	92.07
Total by COLUMNS	93.27	93.72	94.00

COLLEGE	14-15	15-16	16-17
Arts and Humanities	92.54	93.15	93.39
Business	93.12	93.58	94.12
Education	88.17	90.55	91.55
Engineering/Applied Science	93.63	94.19	95.47
Main Campus Undeclared/Non-Deg	95.43	93.75	94.92
Natural and Health Science	94.48	96.57	97.29
Ozark Campus	91.83	92.82	92.48
Prof Study/Comm Outreach*	90.67	91.77	92.73
eTech		87.64	88.49
Total by COLUMNS	92.74	93.56	94.16

Quantitative Reasoning

COLLEGE	14-15	15-16	16-17
Arts and Humanities	93.95	94.38	93.91
Business	94.86	94.00	94.03
Education	92.89	91.98	92.62
Engineering/Applied Science	92.42	93.06	93.84
Main Campus Undeclared/Non-Deg	95.00	92.57	92.59
Natural and Health Science	96.88	96.85	96.77
Ozark Campus	93.44	90.91	88.06
Prof Study/Comm Outreach*	87.50	86.36	83.33
eTech		100.00	93.55
Total by COLUMNS	93.94	93.81	93.78

Critical Thinking

COLLEGE	14-15	15-16	16-17
Arts and Humanities	85.73	86.31	88.78
Business	84.44	88.50	90.07
Education	81.14	82.24	84.31
Engineering/Applied Science	87.01	88.65	89.56
Main Campus Undeclared/Non-Deg	88.89	92.33	89.41
Natural and Health Science	88.21	90.42	91.07
Ozark Campus	86.42	87.89	87.76
Prof Study/Comm Outreach*	82.59	82.24	83.54
eTech		84.75	85.56
Total by COLUMNS	85.93	87.56	88.74