# Department of Biological Sciences

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Professors:
Gagen, Kellner, Kirkconnell, Pendergrass, Stoeckel
Associate Professors:
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Assistant Professors:
P. Cox, Jackson, Lovely, Merle, Tedford
Instructor:
Chaney

The Department of Biological Sciences offers bachelor of science degree curricula in biology, an environmental option in biology, fisheries and wildlife biology, health information management, and medical technology. In addition, an associate degree program in medical assistant and a certificate program in medical transcription are offered, along with a minor in biology. Students interested in teaching biology at the secondary level should follow the suggested curriculum in Life Science and Earth Science for Teacher Licensure as outlined under the teacher licensure curricula, School of Education.

Each of the bachelor of science degree programs offered by the department, with the exception of medical technology and teacher licensure curricula, requires a total of 124 hours for graduation. The medical technology program requires a minimum of 131 hours for completion. Except for Allied Health Science programs (AHS), which adhere to grade policies recommended by certifying associations, no more than 12 hours of "D's" may be applied toward the degree. Students in the Department of Biological Sciences, except for AHS program majors, are required to take a common core consisting of: an orientation course; BIOL 1114, Principles of Biology; BIOL 2124, Zoology; BIOL 2134, Botany; BIOL 3034, Genetics; BIOL/FW 3114, Ecology; a physiology course; and a seminar course. These same students are required to take MATH 1113, College Algebra, plus two additional math courses above that level. Students should see individual degree programs for specific requirements. Courses in computer science, chemistry, and physics are also required.

Graduating seniors, except those in AHS programs, will be required to take the Major Field Assessment Test (MFAT) in Biology as part of the assessment plan for the department. Students will take the test during assessment week the semester of planned graduation.

## Biology

The baccalaureate degree program in biology is designed to prepare students for a wide range of career opportunities. It also provides a solid foundation for those wanting to pursue specialization at the graduate level. Preprofessional courses have been arranged to meet the requirements of students wishing to study medicine, dentistry, pharmacy, and related fields of specialization.

Majors in biology must complete 40 semester hours in biology. Specific course requirements are outlined in the curriculum in biology below; whereas, more general guidelines are in the previous section.

Arkansas Tech University is affiliated with the Gulf Coast Research Laboratory (GCRL) at Ocean Springs, Mississippi. With prior departmental approval, Arkansas Tech University students may enroll in marine biology courses at GCRL, with the credits applied toward the biology degree at Arkansas Tech. This affiliation makes possible a concentration in marine biology.

### Curriculum in Biology

| Freshman Year | Hours |
|---|---|
| English Composition I, II (ENGL 1013, 1023)[1] | 6 |
| College Algebra (MATH 1113) | 3 |
| Social Sciences[1] | 6 |
| Orientation to the Biological Sciences (BIOL 1011) | 1 |
| Principles of Biology (BIOL 1114) | 4 |
| Principles of Zoology (BIOL 2124) or Principles of Botany (BIOL 2134) | 4 |
| Computer Science (COMS 1003 or alternate) | 3 |
| Physical Activity[1] | 2 |
| Total | 29 |

## Curriculum in Biology

| Sophomore Year | | |
|---|---|---|
| Social Sciences[1] | | 6 |
| Mathematics[2] | | 3 |
| General Chemistry I, II (CHEM 2124, 2134) | | 8 |
| Principles of Botany (BIOL 2134) or Principles of Zoology (BIOL 2124) | | 4 |
| Genetics (BIOL 3034) | | 4 |
| Biology Elective | | 4 |
| General Elective | | 3 |
| | Total | 32 |
| **Junior Year** | | |
| Mathematics[2] | | 3 |
| Physical Principles I, II (PHYS 2014, 2024) | | 8 |
| Organic Chemistry (CHEM 3254, 3264) | | 8 |
| Principles of Ecology (BIOL 3114) | | 4 |
| Biology Elective (3000-4000 level) | | 4 |
| General Elective | | 4 |
| | Total | 31 |
| **Senior Year** | | |
| Fine Arts/Humanities[1] | | 6 |
| Physiology Elective[3] | | 4 |
| Cellular/Molecular Elective[4] | | 3-4 |
| Seminar in Biology (BIOL 4891) | | 1 |
| Biology Electives[5] | | 6-7 |
| General Electives[5] | | 11 |
| | Total | 32 |

[1]See appropriate alternatives or substitutions in "General Education Requirements" on page 76.
[2]Six hours of mathematics above MATH 1113. Statistics and Calculus are recommended.
[3]Human Physiology (BIOL 3074), General Physiology (BIOL 3124), Endocrinology (BIOL 4014) or an alternate physiology course approved by advisor and department chair.
[4]Cell Biology (BIOL 4033), Molecular Genetics (BIOL 4074), Microbiology (BIOL 3054), Immunology (BIOL 4023) or an alternate course covering cellular or molecular biology and approved by advisor and department chair.
[5]Sufficient courses at 3000-4000 level to constitute a total of 40 hours. Students interested in concentrating in molecular biology should consider courses in cell biology, molecular genetics, microbiology, and immunology. Students interested in concentrating in field biology should consider courses in dendrology, entomology, herpetology, ichthyology, invertebrate zoology, limnology, mammalogy, ornithology, plant taxonomy, and conservation.

# Biology
## Environmental Option

The baccalaureate degree program in biological science includes an environmental option. This program offers a curriculum with the necessary courses in biology, chemistry, and earth science to provide an educational foundation for students interested in pursuing employment, consultation, or graduate studies in environmental protection and remediation.

### Curriculum in Biology (Environmental Option)

| Freshman Year | | Hours |
|---|---|---|
| English Composition I, II (ENGL 1013, 1023)[1] | | 6 |
| College Algebra (MATH 1113) | | 3 |
| Introductory Sociology (SOC 1003)[1] | | 3 |
| Principles of Environmental Science (BIOL 1004) | | 4 |
| Principles of Biology (BIOL 1114) | | 4 |
| General Chemistry I, II (CHEM 2124, 2134) | | 8 |
| Physical Activity[1] | | 2 |
| | Total | 30 |

## Curriculum in Biology (Environmental Option)

| | | |
|---|---|---|
| **Sophomore Year** | | |
| Environmental Chemistry (CHEM 2143) | | 3 |
| Principles of Economics (ECON 2003)[1] | | 3 |
| American Government (POLS 2003)[1] | | 3 |
| Principles of Zoology (BIOL 2124) | | 4 |
| Principles of Botany (BIOL 2134) | | 4 |
| Computer Science (COMS 1003 or alternate) | | 3 |
| Statistics (PSY 2053 or MATH 2163) | | 3 |
| Physical Principles I, II (PHYS 2014, 2024) | | 8 |
| Environmental Seminar (BIOL/CHEM/GEOL 2111) | | 1 |
| | Total | 32 |
| **Junior Year** | | |
| Organic Chemistry (CHEM 3254, 3264) | | 8 |
| Calculus[2] | | 3-4 |
| Social Sciences[1] | | 3 |
| Fine Arts/Humanities[1] | | 3 |
| General Physiology (BIOL 3124) | | 4 |
| Principles of Ecology (BIOL 3114) | | 4 |
| Technical Writing (ENGL 2053) | | 3 |
| Environmental Seminar (BIOL/CHEM/GEOL 3111) | | 1 |
| | Total | 29-30 |
| **Senior Year** | | |
| Genetics (BIOL 3034) | | 4 |
| Conservation (BIOL 3043) | | 3 |
| Microbiology (BIOL 3054) | | 4 |
| Limnology (BIOL 4024) | | 4 |
| Fine Arts/ Humanities[1] | | 3 |
| Fundamentals of Toxicology (CHEM 3353) | | 3 |
| Environmental Seminar (BIOL/CHEM/GEOL 4111) | | 1 |
| Biology Elective (3000-4000 level) | | 4 |
| Electives[3] | | 6-7 |
| | Total | 32-33 |

[1]See appropriate alternatives or substitutions in "General Education Requirements" on page 76.
[2]MATH 2914 is recommended if you are considering graduate school in this field. Furthermore, MATH 2924 should be considered for a general elective. Otherwise, MATH 2243 is recommended.
[3]Recommended electives include: AGSS 2014, FW 4014, FW 4034,GEOL 1014 and 3153, POLS 2013 and 4103, or SPH 2003 (but also note footnote 2, relative to calculus).

## Minor
### Biology

The minor in biology is available to students who wish to add to their knowledge of this increasingly important field for personal edification or for professional purposes, but choose not to complete a major in biology. The minor in biology requires 20 hours of courses:

BIOL 1014 Introduction to Biological Sciences or BIOL 1114 Principles of Biology
BIOL 2124 Principles of Zoology
BIOL 2134 Principles of Botany
*BIOL Electives (8 hours of 3000 or 4000 level)
*No more than one credit hour can be a seminar course

# Fisheries and Wildlife Biology

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The fisheries and wildlife biology program is a professional program designed to prepare qualified field and research biologists, as well as to provide a sound foundation for those students who intend to pursue graduate studies in wildlife biology, fisheries biology or field ecology. Through selection of appropriate elective courses, graduates are eligible for certification by The Wildlife Society or the American Fisheries Society.

Field biologists are employed by various state and federal agencies concerned with natural resources management including the Arkansas Game and Fish Commission, U.S. Fish and Wildlife Service, U.S. Forest Service, Arkansas Department of Environmental Quality, National Park Service, and the U.S. Army Corps of Engineers. Employment opportunities in the private sector are also available. Timber, mining, and utility companies hire field biologists for advice and management of industrial lands. Environmental consulting firms, commercial fish and game farms, and nature centers require qualified researchers, technicians, and educators. Arkansas is known for its abundant natural resources and outdoor recreation. The need for professionally trained field biologists and natural resource managers is expected to expand.

Majors in fisheries and wildlife biology must complete a minimum of 124 semester hours as specified in the following curriculum outline. No more than 12 hours of “D’s” may be applied toward the degree. Candidates for graduation are expected to complete a comprehensive series of practical and technical exams to assess mastery of program objectives.

## Curriculum in Fisheries and Wildlife Biology

| Freshman Year | Hours |
|---|---|
| Orientation to Fisheries and Wildlife Science (FW 1001) | 1 |
| English Composition I, II (ENGL 1013, 1023)[1] | 6 |
| Principles of Biology (BIOL 1114) | 4 |
| Principles of Zoology (BIOL 2124) | 4 |
| Social Sciences[1] | 6 |
| General Chemistry I (CHEM 2124) or Survey of Chemistry (CHEM 1114)[2] | 4 |
| College Algebra (MATH 1113) | 3 |
| Physical Activity[1] | 2 |
| Total | 30 |
| **Sophomore Year** | |
| Principles of Botany (BIOL 2134) | 4 |
| Physics (PHYS 1114 or alternate) | 4 |
| Technical Writing (ENGL 2053) | 3 |
| Computer Science (COMS 1003 or alternate) | 3 |
| Fundamentals of Organic Chemistry (CHEM 3254) or Organic Physiological Chemistry (CHEM 2204)[2] | 4 |
| Ichthyology (FW 3084), Mammalogy (FW 3154) or Ornithology (FW 3144) | 4 |
| Principles of Ecology (FW 3114) | 4 |
| Social Sciences[1] | 3 |
| Statistics (PSY 2053 or MATH 2163) | 3 |
| Total | 32 |
| **Junior Year** | |
| Junior Seminar in Fisheries and Wildlife Biology (FW 3001) | 1 |
| Social Sciences[1] | 3 |
| Fine Arts/Humanities[1] | 3 |
| Calculus (MATH 2243 or alternate) | 3 |
| Fisheries and Wildlife Administration (FW 3053) | 3 |
| Forest Ecology and Management (FW 4014) or Limnology (FW 4024) | 4 |
| General Physiology (BIOL 3124) | 4 |
| Plant Taxonomy (BIOL 3004) or Dendrology (BIOL 4044) | 4 |

## Curriculum in Fisheries and Wildlife Biology

| | | |
|---|---|---|
| Public Speaking (SPH 2003 or alternate) | | 3 |
| Electives[3] | | 3 |
| | Total | 31 |
| **Senior Year** | | |
| Fine Arts/Humanities[1] | | 3 |
| Genetics (BIOL 3034) | | 4 |
| Principles of Wildlife Management (FW 4003) | | 3 |
| Principles of Fisheries Management (FW 4083) | | 3 |
| Senior Seminar in Fisheries and Wildlife Biology (FW 4001) | | 1 |
| Wildlife Techniques (FW 4013) or Fisheries Techniques (FW 4043) | | 3 |
| FW Electives (3000-4000 level)[3] | | 8 |
| Electives[3] | | 6 |
| | Total | 31 |

[1]See appropriate alternatives or substitutions in "General Education Requirements" on page 76.
[2]CHEM 2124 and CHEM 3254 are recommended for students wishing to pursue a graduate degree.
[3]The Wildlife Society requires a total of 6 hours of administration and planning courses; qualification as a federal wildlife biologist requires a total of 9 hours of botany; the American Fisheries Society requires a total of four courses in fisheries and aquatic science, 15 hours of physical science, and 6 hours of human dimensions. See advisor.

## Allied Health Science Programs

The allied health science programs include a two-year curriculum in medical assistant and four-year curricula in health information management and medical technology. Additionally we offer a certificate program in medical transcription. Statements and curricula for these programs are listed below.

## Health Information Management

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The degree program in health information management prepares the student for a professional career as an active member of the modern health-care team. In this age of increased computerization and data analysis, the health information management field is an exciting new area with virtually unlimited possibilities. The health information management administrator is an expert in the world of health record systems. He/she is responsible for obtaining complete health records for use in research; for gathering statistical information on which to base long-range health planning goals; for determining the legitimacy of requests for confidential medical information; for controlling the circulation and integrity of health records; and, as department chair, is responsible for efficiency of the health information department employees in the performance of daily activities.

The health information department in a medical facility has in its care all the documentation regarding patient-care, physician as well as ancillary information. Responsibility for data validity and integrity play a major role in the health information profession. He/she must be progressive, conscientious, tactful, and knowledgeable, as much work is accomplished in cooperation with other allied health professionals. Above all, the health information professional must adhere to the Code of Ethics of the American Health Information Management Association and to the appropriate institutional behavioral codes that apply.

Directed practice is scheduled at affiliated hospitals in nearby cities for a period of six hours per week during the fall and spring semesters. The management affiliation may be assigned to a hospital in a distant city for four weeks (40 hours per week) and normally occurs in the summer immediately following the senior year. Students are responsible for all transportation and lodging expenses during these assignments; however, every effort will be made to minimize such costs.

Students must make at least a “C” in each of the professional courses and demonstrate their proficiency in directed practice and management-affiliation. Upon successful completion of the program, the student is granted a Bachelor of Science degree in health information management and becomes eligible to write the national certification examination. The student already holding a baccalaureate degree may apply for the HIM program as specified in the Application Guidelines and work toward another baccalaureate degree provided the pre-professional course of study has been completed to establish eligibility to write the national certification examination. Accredited record technicians are urged to contact the Program Director for information regarding RHIA progression. The national certification examination is offered year-round by the American Health Information Management Association.

The application process for the Health Information Management Program is as follows:

## Health Information Management
### Program Application Guidelines

1. Application for upper level professional HIM courses must be on file with the HIM Program Director by March 15th prior to the year you wish to take HIM courses.
2. To be eligible for application interview, the following must be on file: Application, current copy of all applicable transcripts, including current GPA of 2.5 on a 4.0 scale, and COMPASS/ACT scores.
3. Applicants will be required to complete an interview with an interview team. Consideration will be given to areas such as:
   Dedication and perseverance
   Aptitude
   Knowledge of HIM profession
   Professional appearance
   Flexibility
   Realistic career goals
   True desire to enter HIM profession
   Ability to finish HIM program within prescribed time
4. Candidates will be ranked based on interview score, GPA, and number of prerequisite courses completed. The top twenty will be selected. A ranked order waiting list will be maintained by the HIM Program Director.
5. Candidates will be notified prior to pre-registration for the fall semester. If accepted, candidates must return a signed statement acknowledging acceptance. Candidates must register for courses indicated on the degree plan. Any change in degree plan requires approval of the student's HIM faculty advisor. Candidates must notify the program director of change in degree choice.
6. A late application deadline of August 15th will be observed if positions are available. Late applicants will be notified as soon as possible or during the week of late registration.
7. If a candidate fails a course that would preclude graduation, or does not earn at least a “C” in HIM courses, reapplication to the HIM Program will be required.

The Health Information Management Program is accredited by the Commission on the Accreditation for Health Informatics and Information Management Education (CAHIIM) in cooperation with the American Health Information Management Association’s Council on Accreditation.

## Curriculum in Health Information Management

| Freshman Year | | Hours |
|---|---|---|
| English Composition I, II (ENGL 1013, 1023)[1] | | 6 |
| College Algebra (MATH 1113) | | 3 |
| Social Sciences[1] | | 9 |
| Introduction to Biological Science (BIOL 1014)[1] | | 4 |
| Electives (HIM 1001, Health Information Management Orientation, suggested) | | 1 |
| Public Speaking (SPH 2003) | | 3 |
| Basic Pharmacology with an Overview of Microbiology (AHS 1024) | | 4 |
| | Total | 30 |
| Sophomore Year | | |
| Social Sciences[1] | | 3 |
| Physical Activity[1] | | 2 |
| Microcomputer Applications (COMS 2003) | | 3 |
| Introduction to Database (COMS 2233) | | 3 |
| Medical Terminology (AHS 2013) | | 3 |
| Survey of Chemistry (CHEM 1114)[1] | | 4 |
| Basic Human Anatomy and Physiology (BIOL 2004) | | 4 |
| Accounting Principles I (ACCT 2003) | | 3 |
| Fine Arts[1] | | 3 |
| Electives | | 2 |
| | Total | 30 |
| Junior Year | | |
| Statistics for the Behavioral Sciences (PSY 2053) | | 3 |
| Humanities[1] | | 3 |
| Principles of Disease (HIM 4153) | | 3 |
| Introduction to Health Information Management (HIM 3024) | | 4 |
| Management and Organizational Behavior (MGMT 3003) | | 3 |
| Alternative Health Records (HIM 3133) | | 3 |
| Health Data and Statistics (HIM 3132) | | 2 |
| Current Issues in Health Information Management (HIM 3153) | | 3 |
| Human Resource Management (MGMT 4023 or HA/RP 4113) | | 3 |
| | Total | 27 |
| Senior Year | | |
| Professional Practice Experience I, II (HIM 4182, 4292) | | 4 |
| Organization and Administration in HIM (HIM 4063) | | 3 |
| Advanced Concepts in HIM (HIM 3043) | | 3 |
| Basic Coding Principles (HIM 3033) | | 3 |
| Systems Analysis for HIM (HIM 4983) | | 3 |
| Legal Concepts for the Health Fields (HIM 4073) | | 3 |
| Health Organization Trends (HIM 4083) | | 3 |
| Research in Health Information Management (HIM 4092) | | 2 |
| Advanced Coding Principles (HIM 4033) | | 3 |
| Management Information Systems (MGMT 4013) | | 3 |
| | Total | 30 |
| Summer Session (Following Senior Year) | | |
| Affiliation in Health Information Management (HIM 4895) | | 5 |
| Seminar in Health Information Management (HIM 4892) | | 2 |
| | Total | 7 |

[1]See appropriate alternatives or substitutions in “General Education Requirements” on page 76.

# Medical Assistant

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Medical assistants serve with medical doctors in their offices or other medical settings, performing administrative and/or clinical duties. The medical assistant curriculum is a two-year associate of science degree program. This program offers the student a broad foundation in basic medical assisting skills, including a period of practical experience in a medical facility working under the supervision of clinic personnel and the Medical Assistant Program Director.

Basic medical assistant training and education consist of learning experiences in science, communication skills, medical records and medical transcription; medical laboratory and examination room procedures; and general office practices.

Admission to the second year of the program is on a competitive basis and is limited to twenty students each year. Students must make at least a “C” in each of the professional courses. A student is eligible for admission to the second year of study upon: completion of all prerequisites with an overall grade point average of at least a 2.00 on a 4.00 scale; demonstration of typing proficiency or completion of a keyboarding class with a grade of “C” or better; presentation of evidence of good health; and satisfactory completion of a personal interview with the program director. If more than twenty students qualify for the second year of the program, they will be ranked by cumulative grade point average. Those not admitted in the first round of selection will be placed on a ranked waiting list. As vacancies develop, they will be filled from the waiting list.

Students enrolled in AHS 2034, AHS 2044, and AHS 2055 are required to carry malpractice liability insurance. A group insurance policy is arranged by the program director, but the premiums are paid by the student and are not included in the tuition and fees paid to the University.

The Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Committee on Accreditation for Medical Assistant Education. Students who successfully complete the associate degree program for medical assistant will be eligible to sit for the Certified Medical Assistant (CMA) examination.

## Curriculum in Medical Assistant

| Freshman Year | Hours |
|---|---|
| English Composition I, II (ENGL 1013, 1023)[1] | 6 |
| Principles of Zoology (BIOL 2124) or Principles of Biology (BIOL 1114) | 4 |
| Basic Pharmacology with an Overview of Microbiology (AHS 1024) | 4 |
| Mathematics[1] | 3 |
| General Psychology (PSY 2003) | 3 |
| Speech (SPH 1003 or 2003) | 3 |
| Microcomputer Applications (COMS 2003) | 3 |
| Introduction to Computer Based Systems (COMS 1003) | 3 |
| First Aid (PE 2513) | 3 |
| Total | 32 |
| **Sophomore Year** | |
| Basic Human Anatomy and Physiology (BIOL 2004) | 4 |
| Medical Terminology (AHS 2013)[2] | 3 |
| Medical Laboratory Orientation and Instrumentation (AHS 2023) | 3 |
| Medical Laboratory Orientation and Instrumentation, Laboratory (AHS 2022) | 2 |
| Medical Assistant Clinical Practice (AHS 2034) | 4 |
| Medical Assistant Clinical Practice, Laboratory (AHS 2031) | 1 |
| Professional Medical Transcription (HIM 2003) | 3 |
| Medical Assistant Administrative Practice (AHS 2044) | 4 |

### Curriculum in Medical Assistant

| | |
|---|---|
| Legal Concepts for the Health Fields (HIM 4073) | 3 |
| Computers in the Medical Office with an Overview of Insurance Procedures (AHS 2053) | 3 |
| American History[3] | 3 |
| Total | 33 |
| **Summer Session (Following Sophomore Year)** | |
| Externship (AHS 2055) | 5 |
| Medical Assistant Seminar (AHS 2061) | 1 |
| Total | 6 |

[1]See appropriate alternatives or substitutions in "General Education Requirements" on page 76.
[2]Credit may be earned through successful completion of the challenge examination in medical terminology. Refer to the section in this catalog entitled "Credit by Examination."
[3]HIST 2003 or 2013.

## Medical Technology

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Arkansas Tech University, in affiliation with approved schools of medical technology, offers a four-year program leading to the bachelor of science degree and to certification as a medical technologist. The affiliated schools of medical technology are accredited by the Council on Medical Education and Hospitals of the American Medical Association.

The first three years of the curriculum are taught on the Tech campus and the fourth (professional) year is taught at one of the affiliated schools of medical technology. Admission to the professional year is on a competitive basis, and students must meet the admission standards of the medical technology school.

### Personnel with Medical Technology Affiliated Institutions

*Baptist Medical System, Little Rock, Arkansas:* John E. Slaven, M.D., Medical Director, School of Medical Technology; Sandra G. Ackerman, B.S., M.T (ASCP)S.H., Program Director, School of Medical Technology.

*St. John's Regional Medical Center, Joplin, Missouri:* Margaret Janssen, M.D., Medical Director, School of Medical Technology. Connie Wilkins, MS., MT (ASCP), Program Director, School of Medical Technology.

To qualify for the bachelor of science degree, the student must satisfactorily complete a minimum of 91 semester hours during the first three years of the program and 40 semester hours during the final professional year (52 weeks of class) at an affiliated medical technology school. The third year of the curriculum (30 semester hours) must include 20 semester hours in courses numbered 3000 or above, of which 4 semester hours must be in chemistry and 7 or 8 semester hours in biology. Also, the third year of the curriculum must be completed in residence at Arkansas Tech University.

Tuition and fees for courses taken the senior year at one of the affiliated medical technology schools will be assessed at the current rate charged by the affiliated school and are payable to Arkansas Tech University. Financial aid and scholarship arrangements are also made by Tech.

Upon successful completion of the final 40 hours at an affiliated medical technology school, a student is eligible for a bachelor of science degree, as well as being eligible to write the National Board Examination for licensure. This examination is given at various times throughout the year by the Board of Registry of the American Society of Clinical Pathologists.

## Curriculum in Medical Technology

| Freshman Year | | Hours |
|---|---|---|
| English Composition I, II (ENGL 1013, 1023)[1] | | 6 |
| College Algebra (MATH 1113) | | 3 |
| Plane Trigonometry (MATH 1203) | | 3 |
| Orientation to the Biological Sciences (BIOL 1011) | | 1 |
| Principles of Zoology (BIOL 2124) or Principles of Biology (BIOL 1114) | | 4 |
| General Chemistry I, II (CHEM 2124, 2134) | | 8 |
| Basic Human Anatomy and Physiology (BIOL 2004) | | 4 |
| Physical Activity[1] | | 2 |
| | Total | 31 |
| **Sophomore Year** | | |
| Social Sciences[1] | | 9 |
| Physical Principles I, II (PHYS 2014, 2024) | | 8 |
| Medical Terminology (AHS 2013)[2] | | 3 |
| Fine Arts/Humanities[1] | | 3 |
| Medical Laboratory Orientation and Instrumentation (BIOL 2023) | | 3 |
| Medical Laboratory Orientation and Instrumentation, Laboratory (BIOL 2022) | | 2 |
| Computer Science Electives[4] | | 3 |
| | Total | 31 |
| **Junior Year** | | |
| Microbiology (BIOL 3054) | | 4 |
| General Psychology (PSY 2003) | | 3 |
| Fine Arts/Humanities[1] | | 3 |
| Biology (BIOL 3034, 3064, 4023, or 4033) | | 7-8 |
| Chemistry (CHEM 2204, 3245, 3254, 3264, 3343, or 4414) | | 12-13 |
| | Total | 29-31 |
| **Senior Year** | | |
| Clinical Microscopy and Body Fluids (MEDT 4012-3)[3] | | 2-3 |
| Hematology (MEDT 4029)[3] | | 9 |
| Immuno-hematology (MEDT 4035)[3] | | 5 |
| Clinical Chemistry and Instrumentation (MEDT 4048-9)[3] | | 8-9 |
| Microbiology (MEDT 4056-7)[3] | | 6-7 |
| Parasitology (MEDT 4064)[3] | | 4 |
| Serology (MEDT 4073)[3] | | 3 |
| Special Topics (MEDT 4081-2)[3] | | 1-2 |
| | Total | 40 |

[1]See appropriate alternatives or substitutions in "General Education Requirements" on page 76.
[2]Credit may be earned through successful completion of the challenge examination in medical terminology. Refer to the section in this catalog entitled "Credit by Examination."
[3]All 4000 level MEDT courses are offered at affiliate institutions; enrollment is completed through Arkansas Tech University.
[4] COMS 1003 or alternate

## Medical Transcription

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An educational program in medical transcription will prepare the student for entry-level employment as a medical transcriptionist by providing the basic knowledge, understanding, and skills required to transcribe medical dictation with accuracy, clarity, and timeliness, while applying principles of professional and ethical conduct.

The certificate program in medical transcription is available to students completing the two-semester curriculum outlined below. Graduates may be eligible to take the voluntary certification examination offered by the American Association for Medical Transcriptionists (AAMT). The AAMT recommends that applicants have a minimum of three years of experience in transcribing acute-care reports prior to taking the examination.

Medical transcription requires knowledge of medical terminology and internal organization of medical reports, as well as operation of modern transcription equipment. Medical transcriptionists may be employed in a variety of health-related settings, including doctors' offices, hospitals, clinics, laboratories, radiology departments, insurance companies, and governmental medical facilities.

Interested students are encouraged to contact the Medical Transcription Coordinator at the first opportunity for advising. To be eligible for a certificate in medical transcription, the student must obtain a “C” or better in all courses and must complete at least 14 hours on the Tech campus. The student must also have a minimum overall grade point average of 2.0 on a 4.0 scale in courses required for the medical transcription certificate.

### Curriculum in Medical Transcription

| Summer Terms | | Hours |
|---|---|---|
| Keyboarding I and II (BUAD 1001, BUAD 2002) | | 3 |
| Introduction to Computer Based Systems (COMS 1003) | | 3 |
| Medical Terminology (AHS 2013) | | 3 |
| | Total | 9 |
| Fall Semester | | |
| Fundamentals of Medical Transcription (HIM 2003) | | 3 |
| Introduction to Biological Science (BIOL 1014) | | 4 |
| English Composition (ENGL 1013) | | 3 |
| Principles of Word Processing (BUAD 2043) | | 3 |
| | Total | 13 |
| Spring Semester | | |
| Advanced Medical Transcription (HIM 3003) | | 3 |
| Principles of Disease (HIM 4153) | | 3 |
| Basic Human Anatomy and Physiology (BIOL 2004)[1] | | 4 |
| | Total | 10 |

[1]Depending on previous preparation, student should recognize that prerequisites may be required before enrolling in BIOL 2004.