

**Catalog:** Undergraduate Catalog 2016-2017 [Archived Catalog]

**Title:** School of Health Sciences

# School of Health Sciences

## ***Administration***

**Ralph F. Linstra, B.S., M.Ed., Ed.D., C.H.E.S.**

*Dean, School of Health Sciences*

*Professor of Public & Community Health*

**Beverly S. Mahoney, R.N., B.S., M.S., Ph.D., M.C.H.E.S., F.A.S.H.A., F.A.A.H.E.**

*Associate Dean, School of Health Sciences*

*Professor of Public & Community Health*

**David A. DeWitt, B.S., Ph.D.**

*Chair, Department of Biology and Chemistry*

*Director, Center for Creation Studies*

*Professor of Biology*

**Annette Florence, B.S., M.P.H., Dr.P.H., M.C.H.E.S.**

*Chair, Department of Public & Community Health*

*Associate Professor of Public & Community Health*

**James Schoffstall, B.S., M.S.Ed., Ed.D., CSCS, HFS, CIFT, PAPHS, RCEP, FACSM**

*Chair, Department of Health Professions*

*Director, Human Performance Lab*

*Professor of Exercise Science*

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## ***Faculty***

The faculty roster, which can be sorted by department and faculty type, is available

at <http://www.liberty.edu/index.cfm?action=faculty&PID=19959&CatID=26>.

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### **PURPOSE**

The School of Health Sciences *exists* to prepare men and women in the sciences and health professions through the integration of current scientific thought and the biblical worldview. Current undergraduate degree programs include: the B.S. in Athletic Training, Biology, Biochemistry, Biomedical Sciences, Biopsychology, Cell and Molecular Biology, Chemistry, Exercise Science, Environmental Biology, Forensic Science, Health Promotion, Public and Community Health, Kinesiology, Zoo and Wildlife Biology, and Zoology.

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## ***Department of Biology and Chemistry***

**David A. DeWitt, B.S., Ph.D.**

*Chair, Department of Biology and Chemistry  
Director, Center for Creation Studies  
Professor of Biology*

**Todd M. Allen, B.S., Ph.D.**

*Director, Chemistry  
Associate Professor of Chemistry*

**Ben Kalu, M.S., M.D.**

*Director, M.S. in Biomedical Sciences Program  
Assistant Professor of Biology*

**James T. McClintock, B.S., M.S., Ph.D.**

*Director, Forensic Science  
Professor of Biology*

**Norman G. Reichenbach, B.S., M.S., Ph.D.**

*Director, General and Organismal Biology  
Professor of Biology*

**Jeremy A. Sellers, B.S., Ph.D.**

*Director, Biochemistry, and Cell and Molecular Biology  
Associate Professor of Biology*

**PURPOSE**

The Department of Biology and Chemistry provides baccalaureate programs in biology, biomedical sciences, cell and molecular biology, chemistry, environmental biology, forensic science, biopsychology, zoo and wildlife biology, zoology, and biochemistry, and services courses in biology and chemistry for Resident and Online Programs. Our programs seek both to transmit and expand knowledge as well as to provide opportunities for research and service. The Department is a community of persons who are voluntarily linked in the pursuit of knowledge, providing a reasoned presentation of these academic disciplines in relation to the Christian faith. The Department's mission is to communicate academic content, Christian values, and requisite skills, all of which prepare persons for a lifetime process of learning and service.

**TEACHER LICENSURE**

Teacher preparation and endorsement in Biology and Chemistry is available through the Department of Biology and Chemistry. Those wishing to pursue teacher-related programs should seek information from the Teacher Licensure Office in the School of Education. Licensure information is also available at <http://www.liberty.edu/uguide>.

**PRE-MED HONOR SOCIETY**

***Coordinator: Dr. Mark Blais***

The purpose of the Pre-Med Honor Society is to give recognition to students who have excelled in the biology and chemistry curricula or any other Liberty University major. Members of the Pre-Med honor society are exemplary for their high academic achievement, strong personal characteristics and their deep commitment to helping others.

**Criteria for membership:**

A student must have:

1. Maintained a GPA of at least 3.50 in any major field of study, and
  2. A deep interest in becoming medical doctors.
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## ***Career Opportunities***

Chemical Technician	Laboratory Research Assistant
Chiropractic School	Medical School
Dental School	Medical Technologist
Environmental Biology	National Park Ranger
Forensic Scientist	Osteopathic School
H.S. Biology Teacher	Pharmacy School
H.S. Chemistry Teacher	Physician Assistant
Junior Toxicologist	Veterinary School

### **Graduate School and Research in:**

Biochemistry	Microbiology
Biology	Molecular Biology
Chemistry	Neuroscience
Ecology	Physiology
Genetics	Wildlife Management
Marine Biology	

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## ***Biochemistry and Molecular Biology Major (B.S.)***

### **PURPOSE**

The purpose of the Biochemistry and Molecular Biology major is to prepare students for medical and related professional schools, graduate school, and employment in the field of biochemistry.

### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Design and conduct biochemical experiments.
  3. Apply standards and principles of safe practice in the laboratory or field environment.
  4. Evaluate ethical issues in the life sciences in light of a biblical/Christian worldview.
  5. Demonstrate competence in biochemistry, cell, and molecular biology.
  6. Analyze and critique laboratory research results in the biochemical or molecular sciences.
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## ***Program of Study***

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## ***Biology Major (B.S.)***

### **PURPOSE**

The purpose of the Biology major is to prepare students for medical and related professional schools, graduate school, and employment in the biological sciences or in teaching.

### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Design and conduct biological experiments.
  3. Apply standards and principles of safe practice in the laboratory or field environment.
  4. Evaluate ethical issues in the life sciences in light of a Biblical/Christian worldview.
  5. Demonstrate competence in the basic categories of the biological sciences.
  6. Analyze and critique field or laboratory research results in the molecular or ecological sciences.
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## ***Programs of Study***

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### ***Biomedical Sciences Major (B.S.)***

#### **PURPOSE**

The purpose of the Biomedical Sciences major is to prepare students for medical and related professional schools, graduate school and employment in the biomedical sciences.

#### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Design and conduct biological experiments.
  3. Apply standards and principles of safe practice in the laboratory or field environment.
  4. Evaluate ethical issues in the life sciences in light of a Biblical/Christian worldview.
  5. Demonstrate competence in the integration of the biological and physical sciences.
  6. Analyze and critique laboratory research results in the medical or molecular sciences.
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## ***Program of Study***

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### ***Cognate***

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## ***Biopsychology Major (B.S.)***

### **PURPOSE**

The purpose of the Biopsychology major is to prepare students for medical school, graduate school, and employment in the cross disciplinary field of biopsychology.

### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Effectively communicate scientific information both orally and in writing.
  2. Design and conduct biological experiments.
  3. Apply standards and principles of safe practice in the laboratory.
  4. Evaluate ethical issues in the life sciences in light of a Biblical/Christian worldview.
  5. Demonstrate competence in the basic concepts of biopsychology.
  6. Analyze and critique research results related to biopsychology.
  7. Explain the neural basis for complex behaviors.
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## ***Program of Study***

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## ***Cell and Molecular Biology Major (B.S.)***

### **PURPOSE**

The purpose of the Cell and Molecular Biology major is to prepare students for medical and related professional schools, graduate school, and employment in cell and molecular biology.

### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Design and conduct biological experiments.
  3. Apply standards and principles of safe practice in the laboratory or field environment.
  4. Evaluate ethical issues in the life sciences in light of a Biblical/Christian worldview.
  5. Demonstrate competence in cell and molecular biology.
  6. Analyze and critique laboratory research results in the molecular sciences.
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## ***Program of Study***

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## ***Chemistry Major (B.S.)***

## **PURPOSE**

The purpose of the Chemistry major is to prepare students for graduate school and employment in chemistry.

## **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Assess experimental design and results obtained in the laboratory or extracted from the literature.
  3. Apply standards and principles of safe practice in the chemistry laboratory.
  4. Evaluate ethical issues in the sciences in light of a Biblical/Christian worldview.
  5. Demonstrate competence in the essential analytical, synthetic, and technical skills to work in the chemical laboratory.
  6. Formulate and solve problems in the principal areas of chemistry.
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## ***Program of Study***

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### ***Environmental Biology Major (B.S.)***

#### **PURPOSE**

The purpose of the Environmental Biology major is to prepare students for graduate school and employment in the environmental sciences.

#### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Design and conduct biological experiments.
  3. Apply standards and principles of safe practice in the laboratory or field environment.
  4. Evaluate ethical issues in the life sciences in light of a Biblical/Christian worldview.
  5. Demonstrate competence in the environmental sciences.
  6. Analyze and critique field research results in the environmental sciences.
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## ***Program of Study***

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### ***Forensic Science Major (B.S.)***

#### **PURPOSE**

The purpose of the Forensic Science major is to prepare students for careers in federal, state and private forensic laboratories through a strong emphasis in biology, chemistry and criminal justice.

## **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Design and conduct biological experiments.
  3. Apply standard and principles of safe practice in the laboratory or field environment
  4. Evaluate ethical issues in the life sciences in light of the Biblical/Christian worldview.
  5. Demonstrate competence in the basic categories of forensic science.
  6. Analyze and critique field or laboratory research results in the forensic sciences.
  7. Explain the importance of forensic science in the criminal justice system.
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## ***Program of Study***

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### ***Zoo and Wildlife Biology Major (B.S.)***

#### **PURPOSE**

The purpose of the Zoo and Wildlife Biology major is to continue to broaden our offerings to students interested in being stewards of God's creation. Zoos are heavily involved in conservation efforts associated with endangered species and students will be equipped to secure jobs in zoos to assist these types of efforts. Similarly, rehabilitation centers are involved in stewardship issues by returning injured animals back into the wild. Students who are interested in science and have a passion for outdoors will also be interested in this major which will equip them for wildlife management graduate programs in natural resources.

#### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Design and conduct biological experiments.
  3. Apply standards and principles of safe practice in the laboratory or field environment.
  4. Evaluate ethical issues in the life sciences in light of a Biblical/Christian worldview.
  5. Demonstrate basic knowledge of vertebrate biology at the physiological, behavioral and ecological levels.
  6. Analyze and critique field or laboratory research results on vertebrate wildlife.
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## ***Program of Study***

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### ***Zoology Major (B.S.)***

## **PURPOSE**

The purpose of the Zoology major is to prepare students for veterinary, medical, and related professional schools, graduate school, and employment involving animals.

## **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Communicate scientific information both orally and in writing.
  2. Design and conduct biological experiments.
  3. Apply standards and principles of safe practice in the laboratory or field environment.
  4. Evaluate ethical issues in the life sciences in light of a Biblical/Christian worldview.
  5. Demonstrate competence in organismal biology at the molecular, physiological, and ecological levels.
  6. Analyze and critique field or laboratory research results in the zoological sciences.
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## ***Program of Study***

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### ***Biology Minor***

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### ***Biomedical Sciences Minor***

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### ***Chemistry Minor***

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## ***Department of Health Professions***

**James Schoffstall, B.S., M.S.Ed., Ed.D., CSCS, EP-C, CIFT, PAPHS, RCEP, FACSM**  
*Chair, Department of Health Professions*  
*Director, Human Performance Lab*  
*Professor of Exercise Science*

**Eric Brubaker, B.S., M.S., Ed.D.**  
*Associate Chair, Department of Health Professions*  
*Director, Kinesiology Program*  
*Associate Professor of Kinesiology*

**Andrew Bosak, B.S., M.S., Ph.D., CSCS, EP-C**  
*Director, M.S. in Exercise Science Program*  
*Professor of Health Professions*

**Matthew J. Gage, B.S., M.S., Ph.D., ATC, LAT**



*Director, Athletic Training Program  
Associate Professor of Athletic Training*

**David Titcomb, B.S., M.S.PT, D.P.T., EP-C**  
*Director, Exercise Science Program  
Associate Professor of Exercise Science*

## **PURPOSE**

The Department of Health Professions faculty members are committed to preparing students in three majors: Athletic Training, Exercise Science, and Kinesiology. Each major leads to a Bachelor of Science degree. Our objective is to encourage student growth in these disciplines from the Christian worldview in preparation for employment/graduate education as they pursue God's purpose for their lives.

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## ***Athletic Training Major (B.S.)***

Athletic Training is practiced by Certified/Licensed Athletic Trainers; health care professionals who collaborate with physicians to optimize activity and participation of patients and clients. Athletic training encompasses the prevention, diagnosis, and intervention of emergency, acute, and chronic medical conditions involving impairment, functional limitations, and disabilities. Athletic Trainers have been recognized by the AMA (American Medical Association) as an allied health care profession since 1990 ([www.nata.org](http://www.nata.org), 2010).

Entry-level athletic training education uses a competency-based approach in both the classroom and clinical settings. Using a medical-based education model, athletic training students (ATS) are educated to provide comprehensive preventive services and care in five domains of clinical practice: Injury/Illness Prevention and Wellness Protection, Clinical Evaluation and Diagnosis, Immediate and Emergency Care, Treatment and Rehabilitation, Organizational and Professional Health and Well-being. The Commission on Accreditation of Athletic Training (CAATE) determines the educational requirements for Athletic Training Programs (ATP). These requirements include cognitive (knowledge) and psychomotor (skill) content in the following 8 content areas: 1) evidence-based practice, 2) prevention and health promotion, 3) clinical examination and diagnosis, 4) acute care of injury and illness, 5) therapeutic interventions, 6) psychosocial strategies and referral, 7) healthcare administration, 8) professional development and responsibility.

Athletic training programs, academic majors, are accredited by CAATE and lead to a bachelor's or master's degree. Certification is granted by the Board of Certification, Inc. (BOC). The BOC conducts annual examinations to certify entry-level athletic trainers. The BOC also establishes and regularly reviews both the standards for the practice of athletic training and the continuing education requirements for BOC Certified/Licensed athletic trainers.

The Bachelor of Science degree program in Athletic Training at Liberty University is nationally accredited through an independent process by CAATE.

The ATP at Liberty University is designed to produce athletic training professionals who will impact the world of sports and health with the highest standards of

knowledge, skill, and compassion. This program of study provides a thorough investigation into the profession of Athletic Training, using rigorous academic instruction in the classroom and intense hands-on clinical study working with area colleges and universities, high schools, and other affiliated sites.

### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Demonstrate assessment procedures for overall wellness including injury prevention techniques.
2. Evaluate pathologies through the use of evidence-based assessment techniques.
3. Demonstrate how to provide care during acute and emergency situations.
4. Implement evidence-based therapeutic treatments and rehabilitation protocols for various pathologies.
5. Demonstrate the components of healthcare administration while having the knowledge of maintaining professional health and well-being.
6. Demonstrate mastery of the knowledge and skills necessary to effectively perform as an entry-level Certified Athletic Trainer as defined by the program's accrediting body.
7. Integrate the biblical worldview into all aspects of practicing athletic training.

### **PROGRAM POLICIES AND DEGREE REQUIREMENTS/APPLICATION PROCEDURES**

A student interested in earning a Bachelor's of Science Degree in Athletic Training at Liberty University must meet the requirements of the Athletic Training Program. The Athletic Training Program's requirements include meeting the university admissions criteria as well as the additional standards associated with preparing competent athletic trainers for clinical practice. These additional standards are developed by the Athletic Training Program at Liberty University. Acceptance to Liberty University and declaring Athletic Training as one's major is the way in which a student begins the process. However this first step is not synonymous with admission into the Athletic Training Program. Each athletic training candidate is to follow the steps associated with the process and meet the criteria established by the program.

The Athletic Training Program has a two stage (Initial & Full) application process. Each candidate will complete the initial application stage at the end of their freshman year or during the first year at Liberty University for transfer students.

#### **Initial Application Process**

In addition to completing ATTR 200, students must meet the following criteria and provide the following information:

1. Candidates must be in good academic standing with the University and have a minimum cumulative GPA of 2.50 on a 4.0 scale.
2. Complete of initial application.
3. All previous collegiate official transcripts must be available to the Athletic Training Program Admissions Committee.
4. Medical history form signed by a physician. The form shall include an endorsement by the physician that states the student is physically able to meet the requirements of the program (See Technical Standards). Meet the Technical Standards Policy for admission into the program.
  - a. Copy of vaccination records, which must include: Rubella, Tetanus,

- Mumps, Polio, Chicken Pox and HBV vaccination.  
b. Due by April 1 to the Athletic Training Program Director.

**Initial acceptance will only occur after final grades have been confirmed by the registrar's office.**

Students will be notified of their initial acceptance status by June 1 via a letter that will be sent out to the student's Liberty University E-Mail. Initial acceptance into Liberty University's Athletic Training Program signifies that students are allowed to continue to take the following athletic training courses:

- ATTR 210 (if not completed)
- ATTR 225
- ATTR 226
- ATTR 305
- ATTR 306

**Full Application/Requirements**

Students will apply for full acceptance into Liberty University's Athletic Training Program during the semester (Fall) following initial acceptance. The application deadline for full application submission is November 15, students must meet and submit the following criteria and provide the following information to the Athletic Training Program to be considered for acceptance:

1. Anticipated final grade for each of the following courses: ATTR 225, 226, 305, 306, HLTH 216, and BIOL 213/214.
  - a. Students will have to obtain their professor's signature to confirm the anticipated final grade
  - b. **Full acceptance will only occur after final grades have been confirmed by the registrar's office.**
2. Cumulative GPA of 2.75 or higher
3. Provide evidence of First Aid certification (certification must remain current while in ATP)
4. Provide evidence of professional rescuer CPR certification (certification must remain current while in ATP)
5. Completed background check through Liberty University approved background check
6. Complete an Essay titled "Why I want be in athletic trainer"
7. Three letters of recommendation (1 from each: non-Athletic Training professor/instructor, pastoral, professional)
8. Provide verification of clinical observation hours
9. Provide verification of the students ability to meet technical standards
10. Provide verification of Universal Precautions Training (annual requirement)
11. Read & sign the confidentiality statement (annual requirement)
12. Read & sign the Athletic Training Policy & Procedure Manuals (annual requirement)

Students will be notified of their initial acceptance status by January 1 via a letter that will be sent out to the student's Liberty University E-Mail. Full acceptance into Liberty University's Athletic Training Program signifies that students are allowed to continue to take the following athletic training courses:

- ATTR 221

- ATTR 300
- ATTR 301
- ATTR 310
- ATTR 311

**It is the student's responsibility to make sure the required documents and information are in the hands of the Athletic Training Program by the application deadlines.**

### **TRANSFER STUDENTS**

Students transferring to Liberty University who are interested in entering the ATP must contact the Program Director by August 1. Due to the unique characteristics and background of each individual, a transfer student will be evaluated on an individual basis to determine his/her suitability for the program as well as an appropriate entry level. This evaluation will be made only after the Program Director has received the following:

1. Candidates must be in good academic standing with previous university as well as Liberty University and have a minimum cumulative GPA of 2.50 on a 4.0 scale.
2. Completion of provisional application
3. Copy of all official transcripts from prior academic institutions
4. Medical history form signed by a physician. The form shall include an endorsement by the physician that states the student is physically able to meet the requirements of the program (See Technical Standards).
  - Copy of current vaccination records, including: Rubella, Tetanus, Mumps, Polio, Chicken Pox and HBV vaccination.
5. Meet the Technical Standards Policy for admission into the program.

The above documents and materials must be submitted to Liberty University's AT Program Director by August 1 to be assured an opportunity to be provisionally accepted.

It is highly likely that the competencies covered in the transferring courses may differ from those covered in LU's courses. However, if a transfer student feels certain competencies have been completed, the student must provide the Program Director written documentation from his/her former school's Program Director. This documentation must include a weekly log of hours, a list of completed clinical experiences, competencies, and a statement signed by the Program Director verifying satisfactory completion of the competencies in question. All competencies must meet the standards set forth by CAATE. Any request for course credit transfer must be made to the Program Director.

Once a student has been granted entry into the athletic training program, a student is to maintain his/her status by consistently meeting the following criteria:

1. Earn a "C" or higher in all athletic training courses.
2. Maintain satisfactory citizenship and ethical behavior.
3. Maintain a cumulative 2.75 GPA
4. Remain current with CSER requirement

### **PROGRAM RETENTION STANDARDS**

Once admitted to the program, the student must demonstrate and maintain satisfactory academic and clinical progress as defined below:

- **Overall GPA:** Athletic training students will maintain a minimum cumulative GPA of 2.75. Students falling below a 2.75 GPA will be placed on probation for one semester. If, after one semester of probation, the GPA remains below a 2.75, or falls below a 2.75 in any subsequent semester, the student will be suspended from the program.
  - **GPA in Major:** Students must achieve a minimum grade of “C” in all designated classes (right side of DCP). The student, with permission of the Program Director, may repeat **one** ATTR course in which the student failed to achieve the minimum grade of “C”. A second failure to receive a grade of “C” or better in any ATTR course will result in suspension from the program.
  - Students must complete BIOL 213/214 and 215/216 with a minimum grade of “C” in each section before enrolling in ATTR 400, 320 or 302. Students who receive a grade of “D” will be allowed to continue enrollment for one additional semester if they are enrolled in the BIOL course in which they received the grade of “D”. Students who receive a grade of “F” in any section of the required BIOL classes will be allowed to re-enter the program in the appropriate sequencing upon completion of this requirement.
  - Under extenuating circumstances, and with approval of the Program Director, students will be allowed to continue in the program (under probation status) if they fail to meet one specific section of the GPA requirement. Issues will be considered on an individual basis and must constitute mitigating circumstances beyond the control of the student or program.
  - **Course Sequencing:** Students must complete each clinical and academic course in the order prescribed.
  - **Codes of Conduct:** Satisfactory citizenship and behavior must be demonstrated, per the University’s and the program’s codes of conduct as outlined in the *Liberty Way* and in the *Athletic Training Program Handbook*. Students suspended from the University will be subject to athletic training faculty review as to continuation in the program. The athletic training faculty reserves the right to dismiss from the major, students who exhibit unprofessional or unethical behavior as outlined in the *Program Handbook*.
  - **Guidelines for Appeal:** Students may appeal decisions concerning their status in the Athletic Training Program. In order to do so, the student must submit a written appeal to the Program Director within one week of the notification in question. The documentation must include a detailed justification for the appeal. Upon receipt of the appeal, the athletic training faculty will meet to review the matter. The student will be advised in writing as to the outcome of that discussion within two weeks.
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## ***Program of Study***

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### ***Exercise Science Major (B.S.)***

The Exercise Science program prepares students for careers in the health and fitness industry, as well as graduate studies in exercise physiology, physical therapy, occupational therapy, chiropractic, and other health professions.

The Exercise Science program is designed to produce exercise science professionals who will impact the world of sports, fitness, and wellness for our Lord and Savior Jesus Christ. The program will provide the student with the knowledge, skills, and abilities to assess, prescribe exercise for, and monitor clients in a variety of health, wellness, and fitness settings. This program of study provides the student with a thorough immersion into the field of exercise science, by using a combination of classroom, laboratory, practicum, and internship experiences.

The Bachelor of Science degree program in Exercise Science at Liberty University is nationally accredited by the Commission for the Accreditation of Allied Health Education Programs (CAAHEP).

### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Demonstrate proficiency in the basic knowledge of an entry level Exercise Physiologist or Strength and Conditioning Specialist.
2. Communicate effectively in the area of exercise science.
3. Plan, implement, and evaluate exercise science related programming.
4. Evaluate research data and apply research techniques.

### **PROGRAM APPLICATION PROCEDURES**

Acceptance to Liberty University does not guarantee acceptance into the Exercise Science Program (ESP). Entrance into the ESP can be competitive and students must gain entry into the program via the following process:

- **Provisional Acceptance:** Students interested in becoming part of the Exercise Science Program may initially declare Exercise Science as their major, but declaring Exercise Science as your major does not imply acceptance into the Exercise Science program. Students interested in becoming part of the Exercise Science Program at Liberty University should initially enroll in BIOL 213/214 and the second semester enroll in BIOL 215/216; EXSC 101 can be completed in either the fall or spring semester of the freshman year, along with any other available education requirements as per the course sequencing sheet.
- **Full Acceptance:** Full acceptance into the Exercise Science program will be based upon the successful completion of all requirements during the provisional acceptance phase and selection by the Exercise Science admissions committee. Application for acceptance can be made twice per year: by November 15<sup>th</sup> for spring acceptance and by April 15<sup>th</sup> for fall acceptance.

### **Process and Requirements for Full Acceptance**

During the students Provisional Acceptance phase, application for full acceptance to the program can be initiated. Grades will be reviewed at the end of the semester, with final acceptance contingent upon the successful completion of those courses. The student must meet the following criteria and provide the following information/documentation:

- Candidate must be in good academic standing with the University.
- Must show proof of current student membership to the American College of

Sports Medicine.

- Must show proof of current First Aid and CPR certification.
- The certification must be maintained throughout the student's enrollment in the program.
  - Must include adult, child, and infant
  - Must have a 'hands-on' component
  - Must be from one of the following organizations:
    - American Red Cross
    - American Heart Association
    - National Safety Council
- Cumulative GPA of 2.25 or better.
- Have completed BIOL 213/214, BIOL 215/216, EXSC 101, and EXSC 310 with a grade of 'C' or better.
- Completion of the online application.
- Completion of the Exercise Science Student Confidentiality Agreement.
- Complete transcripts.
- Written paper on "Why I want to be in the Exercise Science Program."

### **Transfer Students**

Students transferring to Liberty University who are interested in entering the Exercise Science Program must follow the same process and procedures for entering the Exercise Science Program as outlined in the above section, 'Program Application Procedures.' Additionally, students must take all 400 level courses residentially. Courses at the 400 level cannot be transferred into the Exercise Science Program.

### **Fee and Expenses**

In addition to university tuition and fees, students enrolled in the Exercise Science program may incur additional expenses. These expenses include, but are not limited to: American College of Sports Medicine (ACSM) national and regional memberships, ACSM Exercise Physiologist certification exam, first aid and CPR certifications, transportation costs associated with off-campus practicum, internship, and related experiences; TB (PPD) skin test, cost of medical examination and background check, if required by practicum or internship site.

### **Program Retention Standards**

Once admitted to the program, the student must demonstrate and maintain satisfactory academic progress as defined below:

- **Overall GPA:** Students will maintain a minimum cumulative GPA of 2.25. Students falling below a 2.25 GPA will be placed on probation for one semester. If, after one semester probation, the GPA remains below a 2.25, or falls below a 2.25 in any subsequent semester, the student will be dismissed from the program.
- **GPA in Major:** Students must achieve a "C" or better in all designated major courses (right side of the degree completion plan). A student, with permission of the Program Director, may repeat ONE major course in which the student failed to achieve the minimum grade of "C". A second failure to receive a grade of "C" or better in any major course will result in dismissal from the program.
- **Course sequencing:** Students must complete each major course in the order prescribed unless approved by the Program Director.

- **Codes of Conduct:** Satisfactory behavior must be demonstrated, per the University's code of conduct as outlined in the *Liberty Way*.
- **Guidelines for appeal:** Students may appeal decisions concerning their status in the Exercise Science Program. In order to do so, the student must submit a written appeal to the Program Director within one week of the notification in question. The documentation must include a detailed justification for the appeal. Upon receipt of the appeal, the Exercise Science faculty will meet to review the matter. The student will be advised in writing as to the outcome of that discussion within two weeks.

### **Internship**

Exercise Science students undertake an internship as the culminating experience of their degree program. Students may choose from a variety of approved internship sites that provide exceptional opportunities for the student to apply their knowledge, skills, and abilities acquired throughout the Exercise Science program in a professional setting. The internship also provides an opportunity for Exercise Science students to experience the careers that are available to them upon graduation.

- **Prerequisite:** The student has completed all Exercise Science course work and HLTH 333, with a grade of 'C' or better; have a minimum overall GPA of 2.25 or better; have achieved a minimum score of 480 on the American College of Sports Medicine's Exercise Physiologist certification exam, and turned in the exam scoring sheet to the Program Director; or consent of the Exercise Science Program Director.

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## ***Programs of Study***

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### ***Kinesiology Major (B.S.)***

#### **PURPOSE**

The Kinesiology degree program is designed to promote the development of a healthy, physically active Christ-centered lifestyle and prepare its graduates for the teaching profession. This academic program will allow students to acquire the disciplinary knowledge of human movement and the requisite skills and competencies in their respective area of concentration.

Those students completing either of the **Health and Physical Education** concentrations will be given the knowledge and teaching skills necessary to design and implement developmentally appropriate motor/sport skill learning experiences in school settings.

#### **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Apply health and physical education curricular content based on sound pedagogical principles and strategies for PreK-12 students.
2. Plan and assess health and physical education lessons.
3. Incorporate diverse learning styles and physical skill levels into lesson plans.
4. Choose, administer, and evaluation assessment instruments to measure



- cognitive, affective, and psychomotor domains.
5. Demonstrate teaching (communication) skills appropriate to K-12 students in physical education classes.
  6. Demonstrate motor/sports skills utilized education curricula.

## ***Health and Physical Education Concentrations***

These concentrations are designed to prepare students primarily as health and physical education teachers for grades PreK-12. Students may choose whether or not to pursue Virginia teacher licensure. Each is a combination of academic study and practical learning experiences dealing with teaching in both health and physical education instructional settings.

### **CPR/First Aid Requirement**

Must show proof of current First Aid and CPR certification

- o Must include adult, child, and infant
- o Must have a 'hands-on' component
- o Must be from one of the following organizations:
  - American Red Cross
  - American Heart Association
  - National Safety Council

### **TEACHER LICENSURE**

Teacher preparation and endorsement in health/physical education is available only through the Kinesiology Major within the Department of Health Professions and the Teacher Education Department. Those wishing to pursue teaching-related programs should seek information from the Director of Kinesiology/ Physical Education and the Teacher Licensure Office in the School of Education. Licensure information is also available at <http://www.liberty.edu/uguide>.

## ***Programs of Study***

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### ***Kinesiology Minor***

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## ***Department of Public and Community Health***

**Annette Florence, B.S., M.P.H., Dr.P.H., M.C.H.E.S.**

*Chair, Department of Public and Community Health  
Associate Professor of Public and Community Health*

**Ashley Tharpe, B.S., M.A., Ed.D., C.H.E.S.**

*Chair, Department of Public and Community Health  
Assistant Professor of Public and Community Health*

**Darlene Martin, B.S., M.Ed., VATL, ATC**

*Director, Public Health Program & Health Promotion Lab  
Assistant Professor of Public and Community Health*

**Richard Lane, B.S., M.P.H & T.M., M.D. F.A.C.P.M.**

*Director, Master of Public Health Program*

*Professor of Public and Community Health*

## **PURPOSE**

The Department of Public and Community Health provides an integrated approach to health, offering competency-based and practice-focused preparation for successful careers in public health and healthcare. Through a Christian worldview, students will learn to strategically address the health needs of priority populations from the individual to the global level using a variety of health promotion and education strategies.

The department comprises both undergraduate and graduate degree programs applicable to a variety of practice settings and situations, as well as further education in the clinical and professional fields. Students completing the program and meeting the prerequisites will be eligible for professional certification through the National Commission for Health Education Credentialing (CHES).

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## ***Public Health Major (B.S.)***

The Public Health major prepares students for careers in health related professions, wellness, injury and disease prevention through either the Health Promotion concentration or the Pre-Clinical concentration. The Health Promotion concentration trains students to serve as health education specialists in the healthcare industry, business, government and in nonprofit organizations. It also trains those seeking graduate studies in clinical fields, public health and more. The Pre-Clinical concentration prepares students for entrance into medical, dental, physician assistant, physical therapy or occupational therapy schools or other allied health graduate programs. At the completion of the program, students qualify and are encouraged to take the national Certified Health Education Specialist (CHES) examination for certification.

### ***Health Promotion Concentration***

### ***Pre-Clinical Concentration***

## **PROGRAM LEARNING OUTCOMES**

The student will be able to:

1. Investigate population health status, needs, and resources using appropriate assessment and analytical methods.
2. Develop, implement and evaluate public health programs to address identified population determinants of health.
3. Demonstrate effective written, oral, and electronic methods of communicating health information with selected audiences.
4. Identify principles of public health interventions that address disparities and inequalities in health access and health status in the context of culture, race, gender, and economics.
5. Describe principles of community collaboration to enhance community

capacity for health.

6. Identify the scientific basis for public health problems.
7. Identify concepts of public health philosophy and organization, including infrastructure, funding and delivery in the U.S.
8. Identify principles of public health leadership, including systems thinking, group process, social justice, and ethics.
9. Describe health from the perspective of God's purposes for humanity in creation, fall, and redemption.

### ***Fee and Expenses***

In addition to university tuition and fees, students may incur additional expenses. These expenses include, but are not limited to: first aid and CPR certifications, professional memberships, transportation costs associated with off-campus internship and related experiences, TB (PPD) skin test, cost of medical examination and background check, if required by internship site.

### ***Program Standards***

- **GPA in Major:** Students must achieve a "C" or better in all designated major and directed courses (right side of the degree completion plan).
- **Overall GPA:** Students must have a minimum cumulative GPA of 2.35 in order to register for HLTH 499 (Internship).

### ***Internship***

Health Promotion students (and Pre-Clinical clinical students who choose and meet the requirements) complete an internship at the end of the curriculum sequence. Students are required to select their internship site and have it approved by the internship coordinator. They may choose from a variety of sites offering health and wellness programming and must work with a qualified site supervisor. The internship experience provides exceptional opportunities for students to apply their knowledge, skills, and abilities acquired through the Public Health program in a professional setting as well as the opportunity to experience various career paths available to them upon graduation.

Prerequisite: Senior Status; Completion of HLTH 452 and 453; minimum overall GPA of 2.35 or better; current First Aid and Adult, Child, and Infant CPR certified; or consent of the Public Health Program Director.

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## ***Programs of Study***

### ***Coming Soon***

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## ***Health Promotion Minor***