The Design of An Undergraduate Athletic Training Curriculum for Virginia Tech

by

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Project submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Master of Science in Education in Health and Physical Education

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September, 1993

Blacksburg, Virginia
Acknowledgements

I would like to thank everyone who morally and physically helped me through the last two years at Virginia Tech, and without whom, I would not have been able to complete this project. I would like to especially thank and recognize the two most important people in my life, Mom and Dad, who have always been behind me even though they know it may be a few more years before I get a job and really start living on my own. A special thanks also goes out to the members of my committee, Dr. Holford, Dr. Driscoll, and Dr. Stratton, who were very tolerant and helped me finish as soon as I could. Dr. Holford, who was my chairperson, helped me enormously by recognizing my weak areas and helping me improve in those areas. Again, thank you to all of you.

I would also like to thank some special friends who made the last two years fun and helped me complete this project. Thank you to Stephanie Carroll who let me use her computer whenever I wanted to, which included some times when she didn’t want me to. Knowing I had somewhere to work on my project at any hour of the night was one less thing I had to worry about. Thanks, Steph! And finally, thanks to Jay Arther and Mike Goforth. I could always count on Jay to listen to all of my complaints, and despite not being the greatest pool player, I consider Jay to be my partner in crime who has helped me get through school the last two years. Mike Goforth deserves thanks for revitalizing my interest in athletic training and for expressing his confidence in me whenever I doubted myself.

Thanks again to all the people I’ve mentioned and also to all my friends I was unable to mention. You know who you are.
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Project Proposal

Introduction

The field of athletic training is growing rapidly and needs to be recognized in our institutions of higher education. Currently, there are 80 colleges and universities throughout the United States with undergraduate athletic training curriculums accredited by the National Athletic Trainers’ Association (NATA) and several more who have internship programs in athletic training (N.A.T.A. Staff, personal communication, January 18, 1993).

In 1991 the American Medical Association (AMA) recognized the field of athletic training as an allied health occupation (C.A.H.E.A., 1992). With the enhanced status from the AMA, more qualifications and education are expected from prospective athletic trainers that cannot be guaranteed through the internship procedure, which is the program currently implemented at Virginia Polytechnic Institute and State University (Virginia Tech). The NATA, which welcomed AMA recognition, surrendered the responsibilities of granting accreditation to undergraduate curriculums to the American Medical Association’s Committee on Allied Health Education and Accreditation (AMA/CAHEA) beginning in the fall of 1993.

In the state of Virginia, James Madison University has the only accredited undergraduate athletic training curriculum, but is currently on probation (H. Amato, personal communication, March 15, 1993). If their program is eliminated after the one-year reevaluation, many students will have to go out-of-state to find a curriculum. A curriculum at Virginia Tech could attract students from Virginia who would
otherwise have to attend James Madison University or an out-of-state school and students transferring internally from other majors at Virginia Tech and from other universities.

Though no formal records are kept, in at least the past four years not a single undergraduate student trainer from Virginia Tech has attempted to take the NATA certification exam. The only exception is two students who became graduate assistants and took the exam during their second year of graduate school at Virginia Tech. One of the reasons for this is that Virginia Tech does not regularly offer one of the classes required of internship candidates. Advanced Athletic Training is only offered periodically as an independent study. In this author's opinion, another reason is the current staff's lack of educational involvement with the student trainers.

**Purpose**

The purpose of this project was to design an undergraduate athletic training curriculum for Virginia Tech that meets current national requirements and could be submitted for accreditation. The curriculum includes specific details on required personnel, facilities, equipment and supplies, learning resources, and specific curriculum classes with course descriptions.

**Justification**

Not only could an undergraduate curriculum benefit the education of students who want to excel in this field, but it could also benefit the university’s athletic department. More capable and knowledgeable student trainers could be an integral part of the operation of the athletic training staff. The Virginia Tech Athletic Training
staff is outstanding in providing first aid and medical attention to its athletes, but their concentration in that area has taken away from the educational and teaching aspect owed to its student trainers. A curriculum could enhance the students' experience in athletic training and improve the total operation of the training room and the athletic department.

Currently, any students at Virginia Tech who wish to become certified athletic trainers must utilize the internship route. There are limited or minimal guidelines offered or minimum standards required from the NATA for intern student trainers; an internship is simply an agreement between a certified athletic trainer and a student, who works with athletes under the supervision of that trainer.

Several certified athletic trainers stated on a survey that internship programs are an inadequate method of teaching student trainers (Esteban, 1993). A student going through the internship route can take the NATA certification exam, but there is no guarantee that the student will be exposed to everything that he/she needs in preparation to take the NATA certification exam. This proposed curriculum for Virginia Tech is structured so that all required competencies are covered in the coursework and the clinical setting. Following the trend of growth and change in the athletic training field, it is very possible that the next step will be to eliminate the "internship only" route and require that all certification candidates graduate from a formal curriculum. Many professionals such as doctors, nurses, dentists and lawyers must go through a very structured form of education, and it is logical that athletic trainers should have to do the same (Esteban, 1993).
If the "internship only" option is eliminated, students who want to be certified athletic trainers will have to attend schools where curriculums are offered. Any school not having an athletic training curriculum would be affected, especially in the athletic department framework. In the past school year, 1992-1993, the Virginia Tech Athletic Department depended on 21 undergraduate student trainers to help the three certified athletic trainers and two graduate assistants on staff. To attract student trainers, there must be some goal toward which they can work. One goal of the student trainers at Virginia Tech is to be eligible to take the certification exam. If they were required to go through a curriculum before being eligible for the exam, they would have to seek this opportunity at an institution with a curriculum offering. Even though it is not yet required to graduate from a formal curriculum, Virginia Tech can prepare for the future and attract prospective athletic trainers by creating an athletic training curriculum, something only one university in Virginia currently offers.

Limitations and Delimitations

The biggest obstacle in implementing a curriculum is the added financial responsibility, mainly salaries for additional personnel. A delimitation of the study was that departmental budgets and faculty salaries are not addressed. This study only addresses curricular issues. It will be left to the university and the department that would house the athletic training program to decide if it can financially afford a curriculum at Virginia Tech.
Definition of Terms

The following are definitions of terms that appear in the text and should be used as guidelines and references.

1. AMA/CAHEA - the American Medical Association’s Committee on Allied Health Education and Accreditation is the group that grants accreditation to institutions for athletic training curriculums upon the recommendation of the JRC-AT (C.A.H.E.A., 1992).

2. JRC-AT - the Joint Review Committee on Educational Programs in Athletic Training is the group that actually evaluates the proposed curriculum and reports its findings to the AMA/CAHEA (C.A.H.E.A., 1992).

3. NATA - the National Athletic Trainers’ Association is the governing body for all athletic trainers.

4. Approved athletic training curriculum - is a program of study in athletic training education at a college or university that is approved by the AMA/CAHEA (N.A.T.A.B.O.C., 1992).

5. Internship program - is a practical-education-work experience concept-approach to gaining the knowledge and skills needed to fulfill the requirements for certification, and is a program designed by a student and a certified athletic trainer to satisfy the eligibility requirements for internship candidacy; athletic training students of this section are referred to as interns (N.A.T.A.B.O.C., 1992).
6. Internship candidate - is a person who is eligible to take the certification exam after meeting all the requirements of an internship program (N.A.T.A.B.O.C., 1992).

7. Curriculum candidate - is a person who is eligible to take the certification exam by meeting the requirements of an approved athletic training curriculum (N.A.T.A.B.O.C., 1992).

8. Competencies in Athletic Training - the manual developed by the NATA Professional Education committee and approved by the Board of Directors; it identifies the body of knowledge and technical skills to be developed by the entry-level athletic trainer, and is intended to assist both instructional personnel and students in identifying knowledge and skills to be mastered; this document accompanies the Essentials and Guidelines (N.A.T.A., 1992).

9. Essentials and Guidelines - the NATA publication, Essentials and guidelines for an accredited educational program for the athletic trainer, stating the minimum standards of quality used in accrediting programs that prepare individuals to enter athletic training and the minimum requirements to which an accredited program is held accountable; this document accompanies the Competencies in Athletic Training (C.A.H.E.A., 1992).
Review of Literature

There has been little literature published in recent years on academic curriculums in athletic training. Much of the literature on athletic training deals with the history of athletic training and the scope of the athletic trainer. Another area of recent concern has been the responsibilities of high school coaches when an athletic trainer is not present. This does show indirectly the value of the athletic trainer. There has been literature concerning athletic injuries and the need for qualified athletic trainers.

In 1987, Culpepper estimated that 850,000 injuries occur each year among an estimated 6 million boys and girls who participate in interscholastic sports activities in our country's secondary schools. A survey cited that the greatest need in health care among Alabama high schools was the presence of personnel trained in athletic injuries.

The need for athletic trainers in research was also pointed out by Albright (1987). Because of their daily presence on the field, athletic trainers are critical in providing correct and accurate information when an injury first occurs. The complete information is valuable if compared to the validity of information collected by parents, coaches and even medical personnel days later.

In 1989, Rankin wrote about the curriculum implemented at the University of Toledo. Rankin pointed out that the average rate of injury in high schools without a full-time trainer was 50% compared to 29% with a full-time trainer. The same study
also reported that the average rate of reinjury was 71% compared to 3% when a full-time trainer was present.

At the University of Toledo, an athletic training option within the human performance degree was created. This curriculum met all NATA requirements at the time and was approved by the NATA. Students in the curriculum are required to observe for three academic quarters in the training room, after which they are accepted into the clinical phase of the program. It was reported that the number of students placed in athletic training graduate programs had increased 400% since the implementation of Toledo’s curriculum (Rankin, 1989). The exact year of implementation was not given.

In researching each of the fifty United States’ statutes, there is not a single state that requires that athletic trainers be hired at any level of competition. The state of Florida, however, does recognize the importance of giving attention to the prevention and treatment of injuries and encourages each school district to implement an athletic injuries prevention and treatment program (FL Statutes Ann. s 232-435, 1989). The long term goal is to have a full-time athletic trainer in every high school in the state. The state of New Mexico, on the other hand, clarifies in its statutes that school districts are not required to employ athletic trainers (Athletic Trainer Act, NM Statutes Ann. s 61-14D-9, 1978).

In 1993, the NATA’s Board of Certification assigned a task force to evaluate and investigate the two different routes through which someone may become eligible to take the certification exam. The route through which candidates became eligible
and their certification exam scores were compared. The data used was obtained from all candidates taking the exam for the first time in the year 1992, which numbered 1786 candidates (Starkey, 1993).

The two routes to eligibility are through a structured academic curriculum or through a practical education work-experience based internship. Of the 1786 candidates, 40% (719) were curriculum candidates, while 60% (1067) were internship candidates. The certification exam consists of three sections, of which all three must be passed for a candidate to be certified as an athletic trainer. The exam is the same for everyone taking it on that particular day regardless of which route the candidate became eligible and is meant to determine if the candidate meets the qualifications of an entry-level athletic trainer (Starkey, 1993).

The first section is the written examination, which measures cognitive knowledge and consists of 150 multiple choice questions with five possible answers to each question. The written-simulation section measures decision-making skills in different situations that an athletic trainer might face. Points are awarded for correct answers and deducted for incorrect answers. The third section is the practical examination which evaluates the candidates' psychomotor skills. The candidate is asked to perform four different tasks and is evaluated by two scorers on the ability to perform these tasks. Each section has a certain passing point, so a candidate may pass zero to all three sections. Any section that is not passed may be retaken without having to retake the sections that have been passed.
The data in the study showed that curriculum candidates significantly outscored internship candidates in all three parts of the examination. Figure 1 (Starkey, 1993) illustrates the scores of internship candidates versus curriculum candidates. Considering all 1,786 first-time candidates in the study, only 28% passed all three sections on the first try. Of these, 31% (222) of curriculum candidates and 26% (277) of internship candidates passed all three sections on the first try.

The data in the study also points out the differences in the academic structure and requirements between the curriculum and internship routes. The requirements for eligibility for each route are given in Table 1 (N.A.T.A.B.O.C., 1992). Institutions with curriculums must explain and show that the curriculum courses cover all competencies as outlined in the NATA’s (1992) Competencies in Athletic Training. On the other hand, internship candidates must only provide proof of passing eight specific courses (N.A.T.A.B.O.C., 1992). There are few specific rules or requirements in creating a curriculum, but more guidelines and restrictions which must be followed. There is not only one way to structure a curriculum, and each curriculum is unique in itself.

Because of the fact that limited literature was available, this author conducted a survey which was sent to 78 institutions with NATA-approved undergraduate curriculums, at the time. The names and addresses of these institutions were obtained from a list compiled by the NATA consisting of approved curriculums for the 1991-1992 school year. A packet sent to each school contained a cover letter (Appendix A), a short survey (Appendix B), and a return envelope (Esteban, 1993).
Figure 1. Average certification exam scores for each section (Starkey, 1993).
Table 1

Requirements for Curriculum and Internship Routes to Exam Eligibility

<table>
<thead>
<tr>
<th>CURRICULUM</th>
<th>INTERNSHIP</th>
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<tr>
<td>Course Content</td>
<td>Courses Titles</td>
</tr>
<tr>
<td>* prevention of athletic injuries</td>
<td>* health: nutrition, drug education</td>
</tr>
<tr>
<td>* evaluation of athletic injuries</td>
<td>* human anatomy</td>
</tr>
<tr>
<td>* therapeutic modalities</td>
<td>* human physiology</td>
</tr>
<tr>
<td>* therapeutic exercise</td>
<td>* kinesiology/biomechanics</td>
</tr>
<tr>
<td>* first aid/emergency care</td>
<td>* exercise physiology</td>
</tr>
<tr>
<td>* administration of athletic training</td>
<td>* first aid/emergency care</td>
</tr>
<tr>
<td>* human anatomy and physiology</td>
<td>* basic athletic training</td>
</tr>
<tr>
<td>* personal/community health</td>
<td>* advanced athletic training</td>
</tr>
<tr>
<td>* exercise physiology</td>
<td>Clinical Requirements</td>
</tr>
<tr>
<td>* kinesiology/biomechanics</td>
<td>* 1500 clock hour of supervised work</td>
</tr>
<tr>
<td>* nutrition</td>
<td>- 375 hours with high risk sports</td>
</tr>
<tr>
<td>* psychology</td>
<td></td>
</tr>
</tbody>
</table>

Clinical Requirements

* 800 clock hours of supervised work
  - 200 hours with high risk sports
  - 400 hours at host institution

Note. From "Credentialing Information" by N.A.T.A.B.O.C., 1992, Dallas: N.A.T.A.
Of the 78 surveys sent, 53 were returned complete and two other schools declined to participate. Of the 53 responding schools, 33 sent additional information about their curriculums as requested. Some of this information was detailed and useful in studying their curriculums, while some was incomplete.

When asked if there were any advantages or disadvantages between curriculums and internship programs, 83% of the respondents said that curriculum programs were better suited for educating student trainers, because the structure and accreditation requirements of a curriculum. The lack of more-specific direction for internship programs by the NATA was said to be a disadvantage of internships by 7% of the respondents (Esteban, 1993).

The survey reinforced the fact that there are some well-organized internship programs, but there are some others that are inadequate and fail to prepare student athletic trainers for the certification exam and to be qualified athletic trainers (Esteban, 1993). Unfortunately, many students usually do not know how well an internship program operates until they experience said program. The survey also indicated that many program directors of approved curriculums agreed that curriculums had more education and training to offer to student athletic trainers (Esteban, 1993).

**Procedures**

The attached athletic training curriculum for Virginia Tech consists of a detailed and structured undergraduate curriculum that meets all requirements for AMA/CAHEA accreditation. The report has the current status and conditions of university personnel, facilities, and equipment and supplies needed for the proposed curriculum.
Recommendations on improvements or adjustments are given in areas that may need them. An outline of the final report is contained in Table 2.

The curriculum is designed based on the information and literature received from a survey sent to all institutions with accredited athletic training curriculums and also follows the Essentials and Guidelines. Certain information from the survey such as number of staff trainers, number of educational staff, number of student trainers, length of program, and curriculum courses will be reviewed. The best concepts from all the information collected will be taken to form a unique curriculum for Virginia Tech.

Once a curriculum has been designed, a formal process must be carried out for accreditation by the AMA/CAHEA. This procedure will also be included in the report and is outlined in the Essentials and Guidelines published by the NATA (C.A.H.E.A., 1992).
Table 2

Outline of the Final Report for the Design of an Athletic Training Curriculum

DESIGN OF AN UNDERGRADUATE ATHLETIC TRAINING CURRICULUM

I. Academic curriculum
   A. pre-admission phase requirements
      1. length of time
      2. observational hours
      3. required coursework
      4. criteria for consideration of admission into concentration
   B. athletic training concentration phase
      1. required clinical/practicum hours
      2. required coursework
   C. suggested electives
   D. requirements for retention
      1. minimum QCA
      2. probationary period
   E. athletic participation clause

II. Personnel
   A. administrative personnel
   B. instructional staff
   C. medical and allied health personnel
   D. clerical and support staff

(table continues)
III. Facilities
   A. training rooms
   B. rehabilitation room

IV. Equipment and supplies
   A. therapeutic modalities and rehabilitation devices
   B. first aid and emergency care equipment

V. Learning resources
   A. library
   B. instructional aids

VI. Accreditation process
   A. submittal of application
   B. conduction of self-study report
   C. site visitation by JRC-AT
   D. JRC-AT recommendations
   E. notification of refusal/acceptance
Academic Curriculum

There are several ways that an athletic training curriculum can be designed and meet all requirements to be considered for accreditation. There are programs at universities and colleges that last from 2 years to 5 years, with no correlation to the size of the institution or level of athletic competition (Esteban, 1993). The proposed curriculum for Virginia Tech should be offered in the College of Education as an athletic training degree option under the Division of Physical Education.

Pre-admission Phase Requirements

The actual time period that students should be enrolled in the athletic training concentration option is two years, usually their junior and senior years. The first two years should be used by students to take core curriculum classes and specified classes that should be used to evaluate their ability when they apply for acceptance into the athletic training concentration phase. The time prior to a student’s application into the concentration phase will be referred to as the pre-admission phase.

During this pre-admission phase, in addition to taking classes, students are required to observe in the training room a total minimum of 120 hours. This may be done over the first two years or the one year prior to the academic year formal admission is being sought.

The purpose of the pre-admission phase is to allow the student to participate in and observe the functions of the trainer and the training room. This time also allows the student to determine if they are genuinely interested in making athletic
training a career. For the athletic training staff, this time allows them to observe the student and determine if he/she will be a good addition and prospective trainer if accepted into the athletic training concentration phase. If, during the first two years, students should decide that athletic training is not what they want to learn, they have the opportunity to pursue a degree in other options within the Division of Physical Education or transfer to another discipline within the university.

The classwork required in the pre-admission phase which consists of core curriculum classes and classes that would apply to the Athletic Training degree is identified in Table 3. Many of these classes would also apply to another option in Physical Education for students who decide not to pursue athletic training or do not gain admission into the concentration phase. Course descriptions for all pre-admission phase courses are contained in Appendix C.

A student may apply for admission into the athletic training concentration phase to begin in the Fall semester of their third year and after meeting all requirements for consideration. Admission into the athletic training program is competitive, and only a limited number of positions exist. The Essentials and Guidelines recommend that the ratio between students and clinical instructors does not exceed 8 to 1 (C.A.H.E.A., 1992). The ratio at Virginia Tech should be kept as close to this as possible depending on demand, but should not exceed a ratio of 10 to 1. This ratio only pertains to students admitted into the concentration phase. With the pre-admission phase concept there could be a set number of students in the concentration and an unlimited number in the pre-admission phase.
Table 3  
 Required Coursework for the Pre-admission Phase of the Athletic Training

**Curriculum**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>CH</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1105</td>
<td>3</td>
<td>Freshman English I</td>
</tr>
<tr>
<td>ENGL 1106</td>
<td>3</td>
<td>Freshman English II</td>
</tr>
<tr>
<td>HUM</td>
<td>3</td>
<td>Choose any university-approved core</td>
</tr>
<tr>
<td>HUM</td>
<td>3</td>
<td>curriculum sequence</td>
</tr>
<tr>
<td>PSYC 2004</td>
<td>3</td>
<td>Introductory Psychology</td>
</tr>
<tr>
<td>SOC 1004</td>
<td>3</td>
<td>Introductory Sociology</td>
</tr>
<tr>
<td>BIOL 1005</td>
<td>3</td>
<td>General Biology I</td>
</tr>
<tr>
<td>BIOL 1015</td>
<td>1</td>
<td>General Biology Lab</td>
</tr>
<tr>
<td>BIOL 1006</td>
<td>3</td>
<td>General Biology II</td>
</tr>
<tr>
<td>BIOL 1016</td>
<td>1</td>
<td>General Biology Lab</td>
</tr>
<tr>
<td>CHEM 1015</td>
<td>3</td>
<td>Introduction to Chemistry I</td>
</tr>
<tr>
<td>CHEM 1025</td>
<td>1</td>
<td>Chemistry Lab</td>
</tr>
<tr>
<td>CHEM 1016</td>
<td>3</td>
<td>Introduction to Chemistry II</td>
</tr>
<tr>
<td>CHEM 1026</td>
<td>1</td>
<td>Chemistry Lab</td>
</tr>
<tr>
<td>PHYS 2205</td>
<td>3</td>
<td>General Physics I</td>
</tr>
<tr>
<td>PHYS 2715</td>
<td>1</td>
<td>Physics Lab</td>
</tr>
<tr>
<td>PHYS 2206</td>
<td>3</td>
<td>General Physics II</td>
</tr>
<tr>
<td>PHYS 2716</td>
<td>1</td>
<td>Physics Lab</td>
</tr>
</tbody>
</table>

(Table continues)
MATH 1015 - 3 CH, Elementary Calculus with Trigonometry I
MATH 1016 - 3 CH, Elementary Calculus with Trigonometry II
*HNF 1004 - 3 CH, Foods and Nutrition
*EDHL 1514 - 3 CH, Personal Health
EDHL 2564 - 2 CH (P/F), Standard First Aid and CPR
*EDPE 2264 - 2 CH, Athletic Injuries
*BIOL 2405 - 3 CH, Human Anatomy & Physiology I
*BIOL 2406 - 3 CH, Human Anatomy & Physiology II, with lab

Note. * = used to calculate major QCA and for evaluation of pre-admission phase; ! = taught by clinical instructors; CH = credit hours.
This is beneficial because the ratio of students to clinical instructors would not be affected by students who are unsure about athletic training or who are not qualified to be admitted into the concentration phase. With only a certain number of positions available, admission into the concentration phase would be competitive, and the best applicants could be chosen.

Applications for admission into the athletic training program may be obtained from the student’s advisor or in the Division of Physical Education. Applications should be submitted no later than January 31 of the school year prior to the Fall semester in which admission is sought. All applicants should be notified of acceptance or denial by March 1. This will allow students to pre-register for Fall classes and to officially declare a major area of study.

To be eligible for consideration, the following criteria must be met:

1. current enrollment or acceptance in the Division of Physical Education
2. at least one year of observational clinical work in the Virginia Tech training room; a minimum of 120 hours is required. These hours will not count towards the hours required by the NATA to take the certification exam.
3. completion of pre-admission phase classes with a minimum overall QCA of 2.5 or 3.0 over the last three semesters, and a major QCA of 2.8.
4. submission of three letters of recommendation; these should come from a clinical instructor that observation hours were performed under, teachers/faculty familiar with the student’s academic achievement and
commitment, or a supervisor familiar with the applicant’s work habits; letters from others will be accepted, but will not weigh as heavy; only 1 letter may come from a clinical instructor.

5. submission of a one-page essay explaining why the student desires admission into this field and his/her future plans in the field.

6. a personal interview with the program director; this must be done after the application has been submitted and before the end of the pre-admission phase.

The program director should evaluate all applications and relevant material for each applicant which should be used in determining admission into the athletic training concentration phase. The program director should also review each applicant’s file with the athletic training staff before making any decisions about admission.

All students should understand that completion of all pre-admission requirements does not guarantee admission into the athletic training program. Students not gaining admission may apply again only once. Admission should again depend on the evaluation of the student, in addition to space availability.

Athletic Training Concentration Phase

Upon admission into the athletic training program, students should work more closely with the athletic teams in the training room and be given more responsibilities. All students must turn in an application and all fees for
membership in the NATA to their advisors after being notified of acceptance into the athletic training program.

During the concentration phase, students must accrue a total of at least 800 hours of supervised clinical/practicum work and complete all coursework to be eligible to take the NATA certification exam. All students should understand that admission into the athletic training concentration and completion of all requirements does not guarantee NATA certification.

The required classwork to be completed for the athletic training concentration is identified in Table 4. Classes that do not have a present course number are denoted with [ ] and are classes that need to be created for the proposed curriculum. Each of the newly created courses should be taught at least once a year. Practicum hours may be obtained throughout the entire school year. Some courses may be taught during the summer depending on demand. Course descriptions of all required athletic training concentration phase courses are contained in Appendix D.

For the newly proposed athletic training curriculum, five courses would have to be created and implemented by the university. Advanced Athletic Training (EDPE [A]) teaches students complicated injuries in more detail and includes instruction in athletic training administration and organization.

Therapeutic Modalities (EDPE [B]) and Therapeutic Exercises (EDPE [C]) stresses the principles and theories of using modalities and exercises in the training room. Rehabilitation of Athletes (EDPE [D]) covers the different surgical
Table 4

Required Coursework for the Athletic Training Concentration of the Athletic Training Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDPE 1214</td>
<td>Weight Training</td>
<td>1 CH</td>
</tr>
<tr>
<td>EDPE 1324</td>
<td>Beginning Swimming</td>
<td>1 CH</td>
</tr>
<tr>
<td>EDPE</td>
<td>ANY EDPE ACTIVITY CLASS</td>
<td>1 CH</td>
</tr>
<tr>
<td>CS 1004</td>
<td>Computer Literacy</td>
<td>3 CH</td>
</tr>
<tr>
<td>*EDPE 3024</td>
<td>Kinesiology</td>
<td>3 CH</td>
</tr>
<tr>
<td>*EDPE 3094</td>
<td>Motor Learning</td>
<td>3 CH</td>
</tr>
<tr>
<td>*EDHL 3554</td>
<td>Epidemiology</td>
<td>3 CH</td>
</tr>
<tr>
<td>ENGL 3764</td>
<td>Technical Writing</td>
<td>3 CH</td>
</tr>
<tr>
<td>*EDPE 4104</td>
<td>Exercise Physiology</td>
<td>4 CH</td>
</tr>
<tr>
<td>*EDPE 4174</td>
<td>Nutrition and Physical Performance</td>
<td>2 CH</td>
</tr>
<tr>
<td>*EDHL 4534</td>
<td>Health Counseling</td>
<td>3 CH</td>
</tr>
<tr>
<td>! *EDPE [A]</td>
<td>Advanced Athletic Training</td>
<td>3 CH</td>
</tr>
<tr>
<td>! *EDPE [B]</td>
<td>Therapeutic Modalities</td>
<td>3 CH</td>
</tr>
<tr>
<td>! *EDPE [C]</td>
<td>Therapeutic Exercises</td>
<td>3 CH</td>
</tr>
<tr>
<td>! *EDPE [D]</td>
<td>Rehabilitation of Athletes</td>
<td>3 CH</td>
</tr>
<tr>
<td>! EDPE [E]</td>
<td>Practicum in Athletic Training</td>
<td>12 CH (P/F)</td>
</tr>
</tbody>
</table>

ELECTIVES - 12 CH, see suggested electives

Note. * = used to calculate major QCA; ! = taught by clinical instructors;
CH = credit hours.
procedures and rehabilitation protocols common to the athletic training field.

EDPE [E] is a course for practicum/clinical hours which students obtain by working under a clinical instructor in the training room.

**Suggested Electives**

The courses of suggested electives for students in the athletic training concentration are listed in Table 5. Because the proposed athletic training curriculum is similar to the Exercise Science concentration and is in the same department, students may choose to obtain a double-major. This would require students to take four extra credit hours more than the 127 credit hours required by the proposed athletic training curriculum. Course descriptions of all suggested electives for the athletic training concentration are contained in Appendix E.

**Requirements for Retention**

To maintain good standing and membership in the athletic training program, students must maintain an overall QCA of 2.5 and major QCA of 2.8 and must pass all required athletic training classes with no less than a grade of C. A student who fails to meet these standards should be placed on one semester probation, during which he/she must reestablish their standing. If this is not done, and a student falls below the standard for two consecutive semesters, the student should be dismissed from the program. An example of a four-year plan of study can be found in Appendix F.
TABLE 5

Suggested Electives of the Athletic Training Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BION 2024</td>
<td>Concepts of Biochemistry</td>
</tr>
<tr>
<td>CHEM 2514</td>
<td>Survey of Organic Chemistry</td>
</tr>
<tr>
<td>EDPE 2224</td>
<td>History and Principles of Physical Education</td>
</tr>
<tr>
<td>EDPE 3064</td>
<td>Principles of Adult Fitness Programs</td>
</tr>
<tr>
<td>EDHL 3534</td>
<td>Drug Education</td>
</tr>
<tr>
<td>EDHL 3544</td>
<td>Consumer Health</td>
</tr>
<tr>
<td>EDPE 4124</td>
<td>Tests and Measurements in Physical Education</td>
</tr>
</tbody>
</table>

*Note.* CH = credit hours.
Athletic Participation

Students participating in varsity athletics who wish to apply for admission into the athletic training program should be treated like any other student. While it is not discouraged, these students should be aware of the difficulty in participating in both athletics and athletic training. The athletic training staff should not be responsible or tolerate a lack of commitment because of athletic sport involvement.

Personnel

As outlined in the Essentials and Guidelines (section I, B, 1), the required personnel should consist of four areas: administrative personnel, instructional staff, medical and allied health personnel, and clerical and support staff (C.A.H.E.A., 1992).

Administrative Personnel

Administrative personnel consists primarily of the head of the physical education department and the athletic training curriculum program director. For this curriculum to be accredited, the hiring of a program director would be essential and is required by the AMA/CAHEA. Candidates for the position of program director must meet the required qualifications as stated in the Essentials and Guidelines, section 1, B, 1, a, (1), (b) (C.A.H.E.A., 1992).

The program director will be a full-time employee of Virginia Tech as a member of the teaching faculty and must currently be in good standing as a certified athletic trainer with the NATA. The responsibilities of the program director include the day-to-day operations, coordination, supervision and evaluation
of the entire curriculum (C.A.H.E.A., 1992). Teaching classes should also be a part of the program director’s responsibilities, but the program director will have no responsibilities with athletic team coverage or travel. His/her main responsibility should be the teaching of athletic training as opposed to the actual practice.

**Instructional Staff**

The instructional staff is composed of clinical instructors and other faculty, who teach primarily in the classroom. One duty of the clinical instructors should be to serve as academic advisors to students within the athletic training curriculum in both the pre-admission phase and the concentration phase.

Clinical instructors are responsible for the supervision of students in the clinical environment as well, such as the training room, and must be certified athletic trainers. Virginia Tech currently has three staff members who fall under this category and who can fulfill the duties of the clinical instructors. These clinical instructors must have the desire to teach students the field of athletic training. Without such desire, a curriculum program would suffer, as would the students. While these clinical instructors should teach one or two classes a year, their main responsibility deals with the operation of the training room and coverage of athletic practices and events, in addition to supervising student trainers.

Each of the current staff trainers at Virginia Tech has a graduate assistant athletic trainer, who helps with the total operation of the training room and aids the staff trainer with their responsibilities. Graduate assistants should also be able to help supervise student trainers and help teach athletic training courses.
The other members of the instructional staff consists of the teaching faculty, who may come from other university disciplines including biology, chemistry, physics and psychology. These instructors are already working for the university and no additional hiring needs to be done in this area.

Currently, many classes in the proposed curriculum exist and are taught by the instructional staff. There are five classes in the proposed curriculum that should be taught by clinical instructors. Which classes are taught by whom should be determined by the availability of the clinical instructors each semester. Because each of these clinical instructors works closely and travels with different athletic teams, there is usually one semester better for them to teach.

**Medical and Allied Health Personnel**

Medical and allied health personnel include the team physician and others such as physical therapists, dentists, orthopedists and ophthalmologists. While the team physician is an employee of the university and works closely with the athletic training staff, the other professionals mentioned have private practices within the community. Their services are readily available when needed.

**Clerical and Support Staff**

The clerical and support staff of the athletic training program should work closely with that of physical education department. While the responsibilities created from this curriculum might be handled by the present personnel, additional staff and expansion should be decided on by the department head and the program director. To meet the personnel requirements for AMA/CAHEA accreditation,
Virginia Tech needs only to hire an athletic training curriculum program director at this time.

**Facilities**

According to the *Essentials and Guidelines* (section 1, B, 3, a), adequate classrooms, administrative offices, and clinical settings should be provided for students, program staff, and faculty. The required number and/or size of these facilities will depend on the number of student trainers to be supervised (C.A.H.E.A., 1992).

**Training Rooms**

Currently, there are three athletic training rooms in the Virginia Tech Athletic Department that provide a good clinical setting for students to observe and gain experience. Each training room is designated to be used by different sports, and students can be rotated between the three so they are exposed to all sports, male and female. With a total of 19 varsity sports, students should have many opportunities to observe several different injuries and conditions, the prevention and treatment of injuries, and the rehabilitation of athletes.

Within the largest training room, the team physician’s office is housed. This allows the team physician to be located near by so that athletes may be evaluated promptly. Athletes visit the team physician only after a qualified trainer has evaluated the injury and refers the athlete to the team physician.
Rehabilitation Room

Virginia Tech also has a separate room for rehabilitation, which contains special equipment and machines for the rehabilitation of athletes. Student trainers should be trained in the operation of these machines as a part of their clinical experience.

Each of the three training rooms is supervised by one of the certified athletic trainers on staff and who will each have a graduate assistant to aid in the operation of the training room. The number of student athletic trainers in each training room should change from season to season, depending on which sports are in full-season at the time.

Currently, Virginia Tech meets most of the facility requirements needed for accreditation. The only accommodation needed is to find an office for the incoming program director. The program director’s office should be located within the physical education department, but could possibly be located in the athletic department.

Equipment and Supplies

Equipment and supplies consists of two categories according to the Essentials and Guidelines,(section I, B, 3, b): therapeutic modalities and rehabilitation devices and first aid and emergency care equipment (C.A.H.E.A., 1992). All equipment used in the daily operation of the training rooms are available and will be used as teaching aids in the classroom and the training room.
Therapeutic Modalities and Rehabilitation Devices

Equipment used as therapeutic modalities and for rehabilitation in the training room include electric stimulation, ultrasound, hydrotherapy, cryotherapy, traction, compression boot, and a refrigerator/freezer for ice. The rehabilitation room contains equipment such as an isokinetic machine, light weights, an exercise bike, stretch cords and tubing, balance boards, and range of motion devices.

First Aid and Emergency Care Equipment

First aid and emergency care equipment in the training room include crutches, stretchers, spine boards, splints, bandages and dressings. Additional supplies such as adhesive tape and protective gear should be used to teach preventative care. Each training room is stocked with the necessary equipment and supplies, and any extra inventory at the time is kept in a storage room, central to all training rooms for easy access. At the end of each school year, inventory is taken of all equipment and supplies, and any necessary purchases are made in preparation for the next school year. Currently, Virginia Tech meets the equipment and supplies requirements by the AMA/CAHEA for accreditation, and no additional physical resources are needed at this time.

Learning Resources

Learning resources include the campus library and other instructional aids (C.A.H.E.A., 1992). Virginia Tech has a very functional library with many resources available to all students. Audio and visual aids are also available through
the learning resources center on campus. In addition, the library subscribes to several journals and magazines that can be used for research and information.

Accreditation Process

After a curriculum has been designed and implemented, the university may go through the process of being accredited by the CAHEA. The following is a description of the process an institution must go through to be considered for accreditation, based on literature from the JRC-AT (1991).

The first step is for the president or chief executive officer of the university to submit an application for initial accreditation along with the application fee. After sending the application, the university must complete the self-study report that they received with the application packet. Four copies must be sent to the JRC-AT after completion of the self-study report (JRC-AT, 1991).

After the JRC-AT has received the self-study report, a site visitation is arranged to validate the self-study report and evaluate the program’s compliance with the Essentials and Guidelines (JRC-AT, 1991). Following the site visitation, the JRC-AT sends a report back to the institution, citing deficiencies, if any, in relation to the Essentials and Guidelines. Each institution is required to send a response on the site visitation report back to the JRC-AT, whether it is to acknowledge the receipt of a good report or to argue any deficiencies cited (JRC-AT, 1991).

After receiving the response from the institution and evaluating all documentation in its possession, the JRC-AT forwards its recommendations
concerning accreditation to the CAHEA. A copy of the recommendations is also sent to the institution being considered. The CAHEA then takes action and decides whether or not to grant accreditation to the sponsoring institution, who is notified promptly of the final decision (JRC-AT, 1991). The accreditation packet may be purchased from the JRC-AT, whose address is provided in Appendix G. The requirements for AMA/CAHEA accreditation and the available resources currently at Virginia Tech are compared in Table 6.
### Table 6

**AMA/CAHEA Accreditation Requirements and Assessment of Current Resources at Virginia Tech**

#### REQUIREMENTS

**Course Content**

- prevention of athletic injuries
- evaluation of athletic injuries
- first aid and emergency care
- human anatomy and physiology
- personal or community health
- exercise physiology
- kinesiology/biomechanics
- nutrition
- psychology
- therapeutic modalities
- therapeutic exercise
- administration of athletic training

**Personnel**

- administrative personnel
- instructional staff

#### CURRENT STATUS

- taught in EDPE 2264
- taught in EDPE 2264
- taught in EDPE 2564
- taught in BIOL 2405 & 2406
- taught in EDHL 1514
- taught in EDPE 4104
- taught in EDPE 3024
- taught in HNF 1004, EDPE 4174
- taught in PSYC 2004, EDPE 3094
- not presently covered
- not presently covered
- not presently covered
- lacking a program director
- adequate

(table continues)
medical and allied health personnel  adequate
clerical and support staff  adequate

REQUIREMENTS

Facilities
classrooms  adequate
clinical facilities  adequate
administrative offices

Equipment and Supplies
therapeutic modalities and rehabilitation devices  adequate
first aid and emergency care equipment  adequate

Learning Resources
library  adequate
instructional aids  adequate
References


Dear Athletic Trainer:

My name is Ron Esteban, and I am a graduate assistant trainer at Virginia Tech. I am majoring in sports management, and as a graduation requirement I am performing a study project, which is based on N.A.T.A. approved undergraduate curriculums. The objective of my project is to study programs at other schools and propose an N.A.T.A. approved curriculum at Virginia Tech.

I would very much appreciate your help with this project and it would take just a little of your time. Could you please fill out the enclosed survey and return it in the enclosed envelope as soon as possible? In addition, could you also send some information about your program and on such things as the following:

- Program of study: year-to-year
- Faculty/staff: please indicate which courses are taught by trainers and which ones are taught by professors/teachers

Because I did my undergraduate studies at Virginia Tech and have seen how our internship program works, I have always been interested in setting up a good curriculum that would benefit our school and our students. I appreciate your time, and if you would like me to send you a copy of my findings and proposal, please indicate so and I would be more than happy to.

Sincerely,

Ron Esteban
Appendix B

RON ESTEBAN - VIRGINIA TECH, UNDERGRADUATE CURRICULUM SURVEY

1. How many years is your curriculum structured for? ______

2. Approximately how many students, in all levels, are enrolled in your athletic training curriculum? ______

3. Approximately how many students graduate from your curriculum every year? ______

4. Approximately how many students go on to take the N.A.T.A. certification exam every year? ______
   - of these, approximately how many eventually pass? ______

5. How many certified or head trainers do you have on staff? ______
   - how many of them teach classes? ______

6. Do you feel that there is any advantage/disadvantage of a curriculum compared to an internship program? If so, please comment.
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

7. I would appreciate any other comments or suggestions that you might have.
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

PLEASE RETURN IN THE ENCLOSED ENVELOPE - THANK YOU
Appendix C

Course Descriptions of Pre-admission Phase Courses

The course descriptions for the pre-admission phase of the athletic training curriculum are listed below as they are listed in the Virginia Tech undergraduate catalog, 1991-1992 (White, 1990).

ENGL 1105 & 1106 - Freshman English I & II
Introduction to the composing process: invention, arrangement, and style; persuasive writing; research; analytical reading and writing. Intensive practice in writing, with collateral reading in the works of significant writers. Pre: 1004 or placement by the English Department for 1105; 1105 or placement by the English Department for 1106.

PSYC 2004 - Introductory Psychology
The scientific study of behavior, behavioral research methods and analysis, and theoretical interpretations. Survey of basic behavioral processes from sensory and physiological mechanisms to personality types and complex decision-making in humans.

SOC 1004 - Introductory Sociology
Social bases of human behavior, including an introduction to basic theories, research methods, social institutions,
complex organizations, and human groups. Social and social psychological antecedents for politics, family, work, science, education, and religion.

**BIOL 1005 & 1006 - General Biology I & II**
Primarily for those not majoring in the life sciences. General principles of biology and their relevance to society. 1005: Cell function and physiology, nutrition, circulation and water balance in plants and animals, hormones, nerves. 1006: Muscles, behavior, genetics, development, populations, evolution, ecology and the life kingdoms.

**BIOL 1015 & 1016 - General Biology Laboratory I & II**
Primarily for those not majoring in the life sciences. Laboratory and field studies to emphasize biological principles and the scientific process. 1015: Cell function and physiology, plant and animal anatomy and physiology. 1016: Genetics, evolution, ecology and the life kingdoms.

**CHEM 1015 & 1016 - Introduction to Chemistry I & II**
For students enrolled in curricula other than science or engineering. Chemical principles applied to material, environmental, and life sciences.
CHEM 1025 & 1026 - Introduction to Chemistry Laboratory
I & II
Accompanies 1015 - 1016, where lab work is required in a student’s curriculum. Must be taken concurrently and in phase with lecture sequence, 1015 - 1016. In both semesters, experiments illustrate principles covered in lecture. Coreq: 1015 for 1025; 1016 for 1026.

PHYS 2205 & 2206 - General Physics I & II
For students in other curricula other than physical sciences, mathematics, or engineering, who have not studied calculus. 2205: Mechanics, thermodynamics, acoustics. 2206: Electromagnetism, optics, relativity, and topics in modern physics. Pre: MATH 1016.

PHYS 2715 & 2716 - Physics Laboratory I & II
Lab experiments dealing with basic laws and techniques of physics; designed for students taking General Physics or Elements of Physics. Coreq: 2205 or 2405 for 2715; 2206 or 2406 for 2716.

MATH 1015 & 1016 - Elementary Calculus with Trigonometry I & II
1015: College algebra, functions, exponentials and logarithms, matrices, sequences and series. 1016:
Calculus including limits, derivatives, applications of derivatives, trigonometric functions. Pre: 2 units of high school algebra and 1 of plane geometry for 1015.

**HNF 1004 - Foods and Nutrition**

Scientific information applied to current concerns in foods and nutrition as it affects the nutritional health and well-being of humans.

**EDHL 1514 - Personal Health**

Fundamental health content and theory to provide students with constructive health information necessary to meet current and future personal health needs. Special emphasis on wellness and health promotion.

**EDHL 2564 - Standard First Aid and CPR**

Designed to meet requirements for the Standard First Aid and Personal Safety and Cardiopulmonary and Resuscitation Certificate of the American National Red Cross or the American Heart Association. On completion, students will be prepared to handle most situations where first aid procedures are needed and will have increased their knowledge of personal safety and accident prevention.
EDPE 2264 - Athletic Injuries

Students are taught the basic principles and skills of athletic training.

BIOL 2405 & 2406 - Human Anatomy & Physiology

Structure and function of the human body for students preparing for professions in the allied health fields.
Appendix D

Course Descriptions of Athletic Training Concentration Courses

The course descriptions for the athletic training concentration of the athletic training curriculum are listed below as they are listed in the Virginia Tech undergraduate catalog, 1991-1992 (White, 1990). Course descriptions of courses with a [ ] course number have been created by the author. These courses do not yet exist at Virginia Tech and will be created for the implementation of the athletic training curriculum.

EDPE 1214 - Weight Training

This course is designed to enhance muscular function to enable one to engage in activities requiring greater than normal levels of muscular development.

EDPE 1324 - Beginning Swimming

This course will provide basic instruction in the fundamentals of swimming.

CS 1004 - Computer Literacy

Introduction to the fundamental elements of computers and computer systems as an applied science. Topics include: history of computers, overview of hardware components and system software, application software, and the BASIC programming language.
EDPE 3024 - Kinesiology
The anatomical and biomechanical basis of human motion, with applications for motor skill acquisition, and developmental and rehabilitative exercise. Pre: BIOL 2405, 2406.

EDPE 3094 - Motor Learning
Examines the cognitive and neurophysiological processes underlying motor skill acquisition and performance. Emphasis is on the application of this knowledge to the process of teaching motor skills.

EDHL 3554 - Epidemiologic Concepts of Health and Disease
Designed to give students in the health sciences a basic understanding of the modern concepts regarding health and disease as well as skills in organizing epidemiological data, disease investigation, and surveillance. Includes a survey of terms, concepts, and principles pertinent to epidemiology. Lifestyles of populations and the relationships between lifestyles and health status are studied.

ENGL 3764 - Technical Writing
Principles and procedure of technical writing; attention to analyzing audience and purpose, organizing information,
designing graphic aids, and writing such specialized forms as abstracts, instructions, and proposals. Pre: Junior standing.

**EDPE 4104 - Exercise Physiology**


**EDPE 4174 - Nutrition and Physical Performance**

Interaction of human nutrition with exercise physiology. Nutritional principles applied to the well being of the athlete and to the optimization of exercise performance. Pre: HNF 1004 and EDPE 4104.

**EDHL 4534 - Health Counseling**

Roles, responsibilities, and limitations of the professional health educator in health counseling, guidance and referral, health needs assessment, dynamics of health counseling interaction, and selected counseling techniques such as crisis intervention and value clarification. Pre: Senior standing.

The following are course descriptions of classes that would be created for the proposed athletic training curriculum.
EDPE [A] - Advanced Athletic Training

Students are taught the advanced theoretical and practical methods of analyzing and treating injuries; on-site/emergency evaluation, muscle testing, administrative duties of the athletic trainer and facilities planning are stressed. Prerequisite: EDPE 2264.

EDPE [B] - Therapeutic Modalities

Instructs students in the use and application of therapeutic modalities in laboratory settings; concentrates also on the physiological effects and rationale of the use of therapeutic modalities. Prerequisite: EDPE [A].

EDPE [C] - Therapeutic Exercises

Teaches students the use of exercise and equipment in the health care of athletes; evaluation of muscle and joint function, bio-mechanics, physiological effects and rationale in the use of therapeutic exercise is stressed. Prerequisite: EDPE 3024.

EDPE [D] - Rehabilitation of Athletes

Students are taught the rehabilitation techniques and theories used for various injuries; surgical procedures and follow-up evaluations are also covered. Prerequisite: EDPE [B] and EDPE [C].

EDPE [E] - Practicum in Athletic Training

Students gain first-hand experience in the athletic training room and work under the supervision of a certified trainer; responsibilities in the training room and with athletic teams are assigned.
Appendix E

Course Descriptions of Suggested Electives

The course descriptions for the suggested electives of the athletic training curriculum are listed below as they are listed in the Virginia Tech undergraduate catalog, 1991-1992 (White, 1990).

EDPE 4124 - Tests and Measurements in Physical Education

This course is designed to provide the student with basic measurement concepts that are needed to understand the role of measurement and evaluation in the instructional process.

EDPE 3064 - Principles of Adult Fitness Programs

This course is a practical application of exercise and risk factor modification principles to health promotion and rehabilitation programs.

EDHL 3534 - Drug Education

Interpretation of multidimensional (social, psychological, and physiological) scientific data regarding drugs. The major drug categories will be covered with special emphasis on substance misuse and abuse.
EDHL 3544 - Consumer Health
Overview of health, medical services, and costs emphasizing how the consumer can obtain the best medical services for one's money. Information presented will guide students in teaching wise decisions about health.

CHEM 2514 - Survey of Organic Chemistry
Short course in fundamentals of organic chemistry with emphasis on nomenclature, isomerism, and properties of organic compounds. Compounds of importance to biology and biochemistry stressed. Pre: One year of Chemistry.

BION 2024 - Concepts of Biochemistry
Short course in fundamentals of the chemistry of living systems. Introduction to major categories of biochemical substances, metabolic pathways, and principles of biomedical information transfer. Pre: CHEM 2514 or 2535.

EDPE 2224 - History and Principles of Physical Education
Importance and influence of physical education in civilized society of the past as compared to present analysis of the philosophies which guide the program. Pre: PE major.
Appendix F

Sample Plan of Study for Athletic Training Curriculum

The following is a sample of a four-year class schedule that a student enrolled in the athletic training curriculum might follow. The classes are listed by the year in school and the semester. Course credit hours are in parentheses.

**FIRST YEAR (PRE-ADMISSION PHASE)**

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
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<tbody>
<tr>
<td>(3) ENGL 1105</td>
<td>(3) ENGL 1106</td>
</tr>
<tr>
<td>(3) HUM</td>
<td>(3) HUM</td>
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<tr>
<td>(3) HNF 1004</td>
<td>(3) SOC 1004</td>
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<td>(1) BIOL 1016</td>
</tr>
<tr>
<td>(3) MATH 1015</td>
<td>(3) MATH 1016</td>
</tr>
</tbody>
</table>

16 CREDIT HOURS 16 CREDIT HOURS

**SECOND YEAR (PRE-ADMISSION PHASE)**

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) CHEM 1015</td>
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</tr>
<tr>
<td>(1) CHEM 1025</td>
<td>(1) CHEM 1026</td>
</tr>
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<td>(3) PHYS 2205</td>
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<td>(3) EDHL 1514</td>
<td>(3) PSYC 2004</td>
</tr>
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16 CREDIT HOURS 16 CREDIT HOURS
THIRD YEAR (ATHLETIC TRAINING CONCENTRATION)

FALL: (3) CS 1004
(3) EDPE 3024
(3) EDPE [C]
(3) EDPE [A]
(3) EDPE [E]
15 CREDIT HOURS

SPRING: (1) EDPE 1214
(3) EDPE 3094
(3) ELECTIVE
(3) EDPE [B]
(3) EDPE [E]
16 CREDIT HOURS

FOURTH YEAR (ATHLETIC TRAINING CONCENTRATION)

FALL: (1) EDPE 1324
(3) ELECTIVE
(3) ELECTIVE
(4) EDPE 4104
(3) EDPE [D]
(3) EDPE [E]
17 CREDIT HOURS

SPRING: (1) EDPE ACTIVITY
(3) ELECTIVE
(3) ENGL 3764
(3) EDHL 4534
(2) EDPE 4174
(3) EDPE [E]
15 CREDIT HOURS

127 TOTAL CREDIT HOURS FOR GRADUATION
APPENDIX G

The packet for all the information about the accreditation process of undergraduate athletic training curriculums can be purchased from the JRC-AT at the address below.

JRC-AT
Department of Physical Education
Indiana State University
Terre Haute, IN 47809