Department of Physical Education and Sport

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Expected change in departmental curriculum: At the time this catalog was printed, the Department of Physical Education and Sport had applied to the New York State Department of Education to change the department’s concentrations (as listed in this catalog) into independent major programs. Those changes may take place within the term of this catalog. If they do, students can expect a “bridge” from the old program to the new in which all credits taken in one of the current concentrations and/or the current liberal arts major will be accepted in one of the new major programs. For the current status of departmental offerings and program requirements, see the online catalog at www.brockport.edu/catalogs/ or contact the department at (585) 395-5332.

Programs in Physical Education and Sport

The major in physical education and sport provides opportunities for the study of physical activity including sport, exercise, play and other physical activities. The academic major provides students with an opportunity to know how and why a physical activity-enriched lifestyle contributes to “the good life.” The curriculum provides numerous opportunities for students to participate in and reflect upon their personal experiences in physical activity. The aim of the physical education major curriculum is to graduate students who are “physically educated.” As such, the core of the major is focused on the study of motor skill and physical fitness. Students learn the principles of acquiring skill and fitness, seek to improve their own levels of skill and fitness, and learn to appreciate the contributions of skill and fitness to human development. (Please note that all physical education majors must pass all components of a health-related physical fitness test that includes measures of body composition, aerobic functioning, muscular strength and endurance, and flexibility.) Students complete the academic major by selecting courses which cover disciplinary content most relevant to their professional (or non-professional) interests.

The department also prepares its graduates for careers as physical education teachers, adapted physical education teachers, coaches, athletic trainers, fitness consultants, exercise specialists, and administrators of sport-related programs and businesses. In addition to the 33-credit academic major, the department offers professional concentrations in: (1) teacher certification, (2) teacher certification and adapted physical education, (3) athletic training, (4) sport management, and (5) exercise physiology. Acceptance into a professional concentration is not guaranteed; interested students should consult the admission requirements for each of the concentrations outlined on the following pages. Teacher certification programs are offered only in conjunction with the major in physical education. The concentrations in athletic training, sport management, and
exercise physiology are available to both physical education majors and non-majors. (Additional prerequisites may be required for students lacking a strong background in physical education.) The department also offers a minor in coaching. Since individuals who complete the teacher certification program in physical education are also certified to coach upon completion of their program, the minor in coaching is directed to non-certification students (and is also open to non-majors). Of course, teacher certification students may select coaching courses as part of their program of study. Specific requirements for the major and for each special program are described below.

1. Academic Major in Physical Education (33 credits)

   A. Required Academic Core Courses: (21 credits)
   The major in physical education consists of 21 credits of specific required courses plus 12 credits chosen from a list of approved elective courses:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PES 305 Significance of Physical Activity</td>
</tr>
<tr>
<td>3</td>
<td>PES 315 Fitness for Healthful Living</td>
</tr>
<tr>
<td>4</td>
<td>PES 325 Kinesiological Bases for Exercise and Sport*</td>
</tr>
<tr>
<td>4</td>
<td>PES 335 Physiological Bases for Exercise and Sport*</td>
</tr>
<tr>
<td>4</td>
<td>PES 345 Skill Acquisition and Performance</td>
</tr>
<tr>
<td>3</td>
<td>PES 3XX Advanced Performance</td>
</tr>
<tr>
<td></td>
<td>* BIO 221 or the equivalent is a pre-requisite for these courses</td>
</tr>
</tbody>
</table>

   Total: 21

   B. Elective Courses: (12 credits)
   Students in each of the professional concentrations will complete the physical education major by taking 12 credits of upper-division liberal arts electives identified by the professional concentration.

   Students in each of the professional concentrations may not exceed six credits of elective, upper division, liberal arts performance courses for the completion of the academic major. Additional performance electives include both advanced sport and honors performance courses.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PES 3XX Advanced Performance</td>
</tr>
<tr>
<td>3</td>
<td>PES 350 History of Sport, Play, and Exercise</td>
</tr>
<tr>
<td>3</td>
<td>PES 360 Philosophy of Sport</td>
</tr>
<tr>
<td>3</td>
<td>PES 396 Women in Sport</td>
</tr>
<tr>
<td>1–3</td>
<td>PES 399 Independent Study</td>
</tr>
<tr>
<td>3</td>
<td>PES 401 Physical Activity in Adulthood</td>
</tr>
<tr>
<td>3</td>
<td>PES 405 Obesity in Society</td>
</tr>
<tr>
<td>3</td>
<td>PES 410 Physiology of Exercise II</td>
</tr>
<tr>
<td>3</td>
<td>PES 411 Introduction to Sport Medicine</td>
</tr>
<tr>
<td>3</td>
<td>PES 412 Sport Medicine</td>
</tr>
<tr>
<td>3</td>
<td>PES 413 Human Development and Movement</td>
</tr>
<tr>
<td>3</td>
<td>PES 414 Assessment in Physical Education and Sport</td>
</tr>
<tr>
<td>3</td>
<td>PES 416 Lab Techniques in Exercise Physiology</td>
</tr>
<tr>
<td>3</td>
<td>PES 420 Biomechanical Skill Analysis*</td>
</tr>
<tr>
<td>3</td>
<td>PES 430 Psychology of Sport</td>
</tr>
<tr>
<td>3</td>
<td>PES 441 Sport and Society</td>
</tr>
<tr>
<td>3</td>
<td>PES 445 Social Psychology of Sport</td>
</tr>
<tr>
<td>3</td>
<td>PES 446 Sports Spectating in the United States</td>
</tr>
<tr>
<td>3</td>
<td>PES 451 The Modern Olympic Games</td>
</tr>
<tr>
<td>3</td>
<td>PES 460 Ethics of Sport</td>
</tr>
<tr>
<td>3</td>
<td>PES 461 Theories of Play</td>
</tr>
<tr>
<td>1–3</td>
<td>PES 475 Physical Education Honors—Performance</td>
</tr>
</tbody>
</table>
PES 485 Physical Education Honors—Theory 1–3
PES 490 Physical Education Exchange Program 15
PES 495 Topics in Physical Education 1–3
PES 499 Independent Study 1–3

* BIO 221 or the equivalent is a pre-requisite for this class.

Electives Total: 12

2. Contractual Liberal Arts Physical Education Major (Total for Major 33)
The Contractual Liberal Arts Physical Education Major (CLAPEM) is an option that permits
the student to design an individualized physical education major program drawn from the total
academic offerings of the Department of Physical Education and Sport. This option is intended
to accommodate the interests of physical education major students who choose not to apply to
any of the department’s professional concentrations. While the student is required to take the
six-course, 21-credit academic core, the remaining 12 credits are elective opportunities to be
decided upon in consultation with the student’s major advisor.

3. Professional Programs (A through F below)

A. Teacher Certification
The teacher education program leads to “initial certification” to teach physical education in
grades PreK-12 in New York State. To obtain “professional certification” students must earn a
master’s degree within five years of completing the bachelor’s degree. This program also certifies
successful candidates to coach in New York. Depending on how students meet requirements
in General Education, the academic major in physical education, and in teacher certification,
may take more than 120 credits to complete this program.

Admission: In order to meet New York State Department of Education standards for teacher
certification programs, only a limited number of students each semester can be admitted to the
program as evidenced by enrollment in PEP 441. To be eligible for a seat in PEP 441, students
must have a 2.5 SUNY Brockport grade point average for at least 12 credits of work of which
no more than 25 percent of the credits are in "activity" classes.

Other Requirements:
(a) Pre-acceptance requirements
   1. Completion of the required application form
   2. Payment of the College-mandated application fee

(b) Field experience requirements
   1. Completion of the required application forms

(c) Pre-student teaching requirements:
   1. Completion of at least 108 credits prior to student teaching
   2. Completion of all General Education requirements
   3. Completion of the foreign language requirement
   4. Completion of all physical education major requirements
   5. A minimum 2.0 GPA in the physical education major (transfer classes do not
      count)
   6. Completion of all teacher certification courses with a grade of “C” or better (a
      grade of “C” or better is required in all teacher certification methods classes,
      teacher certification elective pool classes, and all activity classes)
   7. Satisfactory completion of the health-related physical fitness test
   8. Completion of a student teaching application
   9. Attainment of an overall Brockport GPA of 2.5 or better
1. Required Courses for the Elective Component in the Major (12 credits)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PES 413</td>
<td>Human Development and Movement</td>
</tr>
<tr>
<td>3</td>
<td>PES 414</td>
<td>Assessment in Physical Education and Sport</td>
</tr>
<tr>
<td>3</td>
<td>PES 420</td>
<td>Biomechanical Skill Analysis</td>
</tr>
<tr>
<td>3</td>
<td>PES XXX</td>
<td>Elective</td>
</tr>
</tbody>
</table>

Total: 12

2. Required Professional Sequence (29 credits). Students must receive a “C” or better in all of these courses.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PEP 441</td>
<td>Introduction to Teaching Physical Education</td>
</tr>
<tr>
<td>4</td>
<td>PEP 442</td>
<td>Secondary Instruction and Methods*</td>
</tr>
<tr>
<td>4</td>
<td>PEP 444</td>
<td>Elementary Instruction and Methods</td>
</tr>
<tr>
<td>3</td>
<td>PEP 445</td>
<td>Adapted Physical Education</td>
</tr>
<tr>
<td>3</td>
<td>PEP 483</td>
<td>Early Childhood Physical Education</td>
</tr>
<tr>
<td>2</td>
<td>PEP 476</td>
<td>Student Teaching/Coaching Seminar</td>
</tr>
<tr>
<td>5</td>
<td>PEP 487</td>
<td>Elementary Student Teaching</td>
</tr>
<tr>
<td>5</td>
<td>PEP 488</td>
<td>Secondary Student Teaching</td>
</tr>
</tbody>
</table>

* PES 413 is a pre- or co-requisite for PEP 442

Total: 29

3. Required Cognate Course (1 credit)*

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PRO 370</td>
<td>Health and Drug Education for Teacher Candidates</td>
</tr>
</tbody>
</table>

Total: 1*

* Plus a state-approved and current First Aid (including AED training) and CPR certification.

4. Skill Requirements (13 credits)

In addition to the advanced performance and physical fitness requirements in the major, teacher education students are required to take 10 PEP activity classes totaling 13 credits. These PEP classes incorporate individual skill development, information regarding curriculum development along with teaching/pedagogical techniques. Students must receive a “C” or better in all of these courses.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PEP 201</td>
<td>Educational Dance</td>
</tr>
<tr>
<td>2</td>
<td>PEP 202</td>
<td>Adventure/Challenge Activities</td>
</tr>
<tr>
<td>1</td>
<td>PEP 203</td>
<td>Multicultural/Contemporary Activities</td>
</tr>
<tr>
<td>1</td>
<td>PEP 204</td>
<td>Track and Field/Softball</td>
</tr>
<tr>
<td>1</td>
<td>PEP 205</td>
<td>Golf/Archery</td>
</tr>
<tr>
<td>2</td>
<td>PEP 206</td>
<td>Educational Gymnastics</td>
</tr>
<tr>
<td></td>
<td>Invasion 1 &amp; 2 (Lax/Field Hockey or Speedball/Team Handball or Soccer/Frisbee or Basketball/Football)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Net-Wall</td>
<td>(Volley/Racquetball or Tennis/Badminton)</td>
</tr>
<tr>
<td>2</td>
<td>Aquatics</td>
<td>(Swimming, Lifeguarding or WSI)</td>
</tr>
</tbody>
</table>

Total: 13

5. Electives (5 credits)

Each student is required to select a minimum of five credits from the list of courses below. The intent of these options is to offer the student opportunities to pursue special areas of interest and/or to develop new strengths in areas of limited experience. Students must receive a “C” or better on all of these courses.
### B. Adapted Physical Education Concentration

The concentration in adapted physical education prepares the student for a position in the field, provides a background for graduate study and offers elective opportunities for physical education majors.

The concentration includes completion of the 33-credit physical education major, the teacher certification program in physical education and the nine credit adapted physical education program listed below. Several prerequisites/corequisites and courses in the adapted physical education program may be completed in meeting requirements for the physical education major and teacher education certification program.

**Admission:** The adapted physical education concentration is open to any teacher certification student who has successfully completed PEP 441.

#### 1. Requirements for the concentration

Student must be pursuing the academic major in physical education and teacher certification program in physical education.

#### 2. Course Prerequisites/Corequisites

- **PES 413** Human Development and Movement 3
- **PES 445** Adapted Physical Education 3
- **PSH 110** General Psychology 3
- **PEP 483** Early Childhood 3

#### 3. Adapted Physical Education Program

- **PEP 481** Instructional Strategies in Adapted Physical Education 3
- **PEP 482** Adapted Physical Activity and Sport 3
- **PEP 485** Adapted Physical Education Practicum 3

(PEP 485 may be waived if at least 50 percent of the 10-credit student teaching requirement for teacher certification involves pupils with unique physical education needs.)

### C. Sport Management Concentration

This program prepares students for a career in the management of sports in profit and nonprofit organizations. The sport management concentration includes a core of 15 credits and 12 credits in cognate courses related to each student’s special professional interests. Cognate courses may be taken in a variety of departments. Students must complete an internship experience in sport management. The internship, at a minimum, requires one semester working full time or a full-time summer experience. Students must be prepared to meet all transportation and living expenses while interning.

**Admission:** Students applying for and continuing in the sport management program must have and maintain an overall GPA of 2.0 and must complete a major in physical education or in another approved academic area.
For Physical Education Majors and Non-physical Education Majors

1. Sport Management Core (required—15 credits)
   (A 2.2 GPA must be maintained in the Sport Management Core.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEP 360</td>
<td>Introduction to Sport Management Theory</td>
<td>3</td>
</tr>
<tr>
<td>PEP 460</td>
<td>Administrative Practices in Sport Management</td>
<td>3</td>
</tr>
<tr>
<td>PEP 461</td>
<td>Problems in Sport Management</td>
<td>3</td>
</tr>
<tr>
<td>PEP 467</td>
<td>Internship in Sport Management</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

2. Cognate Courses (required—12 credits)
   Cognate courses are selected from business administration, computer science, communication, recreation, and public administration departmental offerings. Other courses may be chosen with departmental permission.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 317</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BUS 335</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 365</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 366</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BUS 375</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUS 435</td>
<td>Senior Conference in Marketing—Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BUS 437</td>
<td>Promotional Policy and Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 438</td>
<td>Marketing Channels and Logistics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 439</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 465</td>
<td>Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>CMC 312</td>
<td>Argumentation and Debate</td>
<td>3</td>
</tr>
<tr>
<td>CMC 316</td>
<td>Interpersonal Communication in Business and the Professions</td>
<td>3</td>
</tr>
<tr>
<td>CMC 332</td>
<td>Public Relations Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>PEP 351</td>
<td>Coaching Sports</td>
<td>3</td>
</tr>
<tr>
<td>PEP 353</td>
<td>Administration of Intramurals</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An Approved Statistics Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An Approved Computer Literacy Course</td>
<td>3</td>
</tr>
<tr>
<td>PEP 399</td>
<td>Independent Study (with prior approval)</td>
<td>3</td>
</tr>
</tbody>
</table>

   Students majoring in physical education and also pursuing the sport management concentration must select an additional 12 credits (in addition to the 21 credits comprising the Academic Core) from the list provided below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 350</td>
<td>History of Sport, Play, and Exercise</td>
<td>3</td>
</tr>
<tr>
<td>PES 360</td>
<td>Philosophy of Sport</td>
<td>3</td>
</tr>
<tr>
<td>PES 399</td>
<td>Independent Study (with prior approval)</td>
<td>3</td>
</tr>
<tr>
<td>PES 430</td>
<td>Psychology of Sport</td>
<td>3</td>
</tr>
<tr>
<td>PES 441</td>
<td>Sport and Society</td>
<td>3</td>
</tr>
<tr>
<td>PES 445</td>
<td>Social Psychology of Sport</td>
<td>3</td>
</tr>
<tr>
<td>PES 446</td>
<td>Sports Spectating in the United States</td>
<td>3</td>
</tr>
<tr>
<td>PES 460</td>
<td>Ethics of Sport</td>
<td>3</td>
</tr>
<tr>
<td>PES 490</td>
<td>Physical Education Exchange Program</td>
<td>15</td>
</tr>
<tr>
<td>PES 495</td>
<td>Topics in Physical Education (with prior approval)</td>
<td>3</td>
</tr>
<tr>
<td>PES 499</td>
<td>Independent Study (with prior approval)</td>
<td>1–3</td>
</tr>
</tbody>
</table>

   Other courses approved by the advisor of the sport management concentration.

   In addition to taking 15 credits from the Sport Management Core and 12 credits from the cognate courses, non-majors must complete 9–12 credits from the academic major in physical
education. It is recommended that students complete as many prerequisite courses as possible before taking PEP 360 Introduction to Sport Management. Students must complete three of the following courses (9–12 credits):

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 305</td>
</tr>
<tr>
<td>PES 315</td>
</tr>
<tr>
<td>PES 325</td>
</tr>
<tr>
<td>PES 335</td>
</tr>
<tr>
<td>PES 345</td>
</tr>
<tr>
<td>PES 3XX</td>
</tr>
<tr>
<td>PES 350</td>
</tr>
<tr>
<td>PES 360</td>
</tr>
</tbody>
</table>

In addition, non-physical education majors must complete an additional three credits from the following upper-division physical education courses for a grand total of 39–42 credits.

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEP 351</td>
</tr>
<tr>
<td>PEP 352</td>
</tr>
<tr>
<td>PES 396</td>
</tr>
<tr>
<td>PES 399</td>
</tr>
<tr>
<td>PES 430</td>
</tr>
<tr>
<td>PES 441</td>
</tr>
<tr>
<td>PES 445</td>
</tr>
<tr>
<td>PES 446</td>
</tr>
<tr>
<td>PES 460</td>
</tr>
<tr>
<td>PES 490</td>
</tr>
<tr>
<td>PES 495</td>
</tr>
<tr>
<td>PES 499</td>
</tr>
</tbody>
</table>

**NOTE:** Non-physical education majors must successfully complete the requirements for a major in another academic discipline offered at SUNY Brockport with the approval of the sport management coordinator.

**D. Athletic Training Concentration**

Athletic training is an allied health profession dealing with the prevention, recognition, management and rehabilitation of athletic injuries. In this role, the athletic trainer can successfully decrease injury time and promote a quick, safe return to competition. Certified Athletic Trainers (ATC’s) typically work in a variety of settings including colleges and universities, with professional teams, high schools and sports medicine clinics. Recently, the recognition and demand for ATC’s has increased greatly due to the athletic and recreational nature of our society.

The undergraduate Athletic Training Program at SUNY Brockport is accredited through the Commission on Accreditation of Athletic Training Education (CAATE). Athletic training is a concentration within the Department of Physical Education and Sport. The concentration is open to any major, although physical education is the most common choice of our students. The program is carefully designed to meet competencies identified by the National Athletic Trainers’ Association (NATA) and prepares students to successfully complete the NATA Board Certification exam. The program at Brockport is supervised by Certified Athletic Trainers who have teaching and clinical responsibilities.

**Admission** Admission into the Athletic Training Concentration is competitive and requires formal application (refer to the Athletic Training Web site for the current admission criteria). The application process occurs in the spring semester of each academic year. Students may apply to the Athletic Training Concentration if they are enrolled in or have completed PES 385
Basic Athletic training and BIO 221 Survey of Anatomy and Physiology with grades of “C” or better. Current certification in First Aid and CPR/AED (Professional Rescuer) must also be demonstrated prior to admission.

The following must be completed prior to admission:
1. Application for Admission to Athletic Training Program
2. Copies of all previous transcripts:
   • Freshmen send high school and all college transcripts
   • Transfers send all college transcripts
3. Provide two letters of recommendation from former or present supervising athletic trainer, team physician, instructor, coach, etc.
4. Must possess a current GPA of 2.5 or better on a 4.0 scale
5. Must have attained a grade of “C” or better in all courses required for athletic training
6. Provide documentation of current certification in First Aid and CPR/AED (Professional Rescuer)
7. Documentation of fulfillment of Technical Standards for Athletic Training (includes health screening and proof of immunizations)
8. After completion of 1-7, interview with athletic training staff
   During the interview the athletic training staff will be considering the following factors:
   • Motivation
   • Enthusiasm for athletic training
   • Established professional goals
   • Confidence
   • Good academic ability
   • Good study habits
   • Professional appearance
   • Reliability
   • Understanding of the time commitment to athletic training
   • Initiative

The following must be completed in order to be retained in the program:
To be retained in the Athletic Training Concentration, students must:
1. Complete all required course work
2. Complete required clinical experiences (four consecutive semesters)
   All clinical proficiencies associated with each semester of clinical experiences must be completed in order to progress to the next clinical experience course.
3. Complete required competencies and clinical proficiencies
4. Maintain a minimum grade of “C” in all courses within the curriculum
5. Compliance with technical standards and immunization requirements (see Athletic Training Web site)
6. Adhere to all policies and procedures outlined in the Athletic Training Handbook
7. Adhere to regulations governing the practice of Athletic Training in New York State (Article 162, Section 8350)
8. Adhere to National Athletic Trainers’ Association Code of Ethics
9. Maintain certification in First Aid and CPR/AED
Failure to comply with the above criteria will result in dismissal from the Athletic Training Program.
For Physical Education Majors:

Academic core in physical education (21 credits) plus 12 credits of electives in the academic major in physical education and 37 credits from the professional concentration as described below.

(1) Electives in the Academic Major (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 411</td>
<td>Advanced Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>PES 412</td>
<td>Athletic Injury Assessment</td>
<td>3</td>
</tr>
<tr>
<td>PES 414</td>
<td>Assessment in Physical Education and Sport</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following courses: (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 343</td>
<td>Advanced Weight Training</td>
<td>3</td>
</tr>
<tr>
<td>PES 410</td>
<td>Physiology of Exercise II</td>
<td>3</td>
</tr>
<tr>
<td>PES 413</td>
<td>Human Development and Movement</td>
<td>3</td>
</tr>
<tr>
<td>PES 416</td>
<td>Lab Techniques in Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PES 420</td>
<td>Biomechanical Skill Analysis</td>
<td>3</td>
</tr>
<tr>
<td>PES 430</td>
<td>Psychology of Sport</td>
<td>3</td>
</tr>
<tr>
<td>PES 460</td>
<td>Ethics of Sport</td>
<td>3</td>
</tr>
</tbody>
</table>

(2) Professional Concentration (37 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLS 301</td>
<td>Principles of Healthful Living</td>
<td>3</td>
</tr>
<tr>
<td>HLS 306</td>
<td>Contemporary Issues in Health</td>
<td>3</td>
</tr>
<tr>
<td>HLS 311</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PEP 255</td>
<td>Taping for Athletic Training</td>
<td>1</td>
</tr>
<tr>
<td>PEP 356</td>
<td>Therapeutic Modalities</td>
<td>3</td>
</tr>
<tr>
<td>PEP 357</td>
<td>Muscle Testing</td>
<td>3</td>
</tr>
<tr>
<td>PEP 358</td>
<td>Therapeutic Exercise</td>
<td>3</td>
</tr>
<tr>
<td>PEP 359</td>
<td>Organization and Administration of Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>PEP 471</td>
<td>Clinical Experience in Athletic Training I</td>
<td>1</td>
</tr>
<tr>
<td>PEP 472</td>
<td>Clinical Experience in Athletic Training II</td>
<td>1</td>
</tr>
<tr>
<td>PEP 473</td>
<td>Clinical Experience in Athletic Training III</td>
<td>1</td>
</tr>
<tr>
<td>PEP 474</td>
<td>Clinical Experience in Athletic Training IV</td>
<td>1</td>
</tr>
<tr>
<td>BIO 221</td>
<td>Survey of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 321</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 322</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>PSH 110</td>
<td>Principles of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 52

For Non-physical Education Majors

In addition to the courses required in the professional concentration listed above, non-majors must complete the following 14 credits:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 325</td>
<td>Kinesiological Bases for Exercise and Sport</td>
<td>4</td>
</tr>
<tr>
<td>PES 335</td>
<td>Physiological Bases for Exercise and Sport</td>
<td>4</td>
</tr>
<tr>
<td>PES 411</td>
<td>Advanced Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>PES 412</td>
<td>Athletic Injury Assessment</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 14

Clinical Experience

The Athletic Training Program at SUNY Brockport requires that all students in the concentration complete four semesters of clinical experience under the supervision of an NATA-certified athletic trainer before taking the certification examination. At SUNY Brockport, students are supervised by certified athletic trainers and by the team physician. Students acquire their clini-
Physical Education and Sport 309

cal hours through PEP 471–474. Clinical Experience in Athletic Training I–IV course work. These Clinical Experience classes are taken over a period of four consecutive semesters after acceptance into the program.

A clinical instruction fee (liability insurance) will be charged to each student enrolled in PEP 471-PEP 474.

**Certification**

The National Athletic Trainers’ Association Board of Certification (NATABOC) requires that all candidates seeking certification meet the following criteria:

1. Complete two years of clinical practical experience (four semesters) under the supervision of an NATA Certified Athletic Trainer
2. Possess current First Aid and CPR/AED (Professional Rescuer) Certification
3. Possess a bachelor’s degree, and
4. Successfully complete the NATA BOC examination

For the most current information on the Athletic Training Program, please refer to the program Web site: http://www.brockport.edu/pes/undergrad/atrain/index.html.

**E. Exercise Physiology Concentration**

This concentration prepares students for graduate study in exercise physiology and for employment in clinics, fitness corporations, industrial settings, and sport research centers. It will also prepare students for certification exams conducted by organizations such as the American College of Sports Medicine, Aerobics Institute, and National Strength and Conditioning Association.

**Admission:** The exercise physiology curriculum is open to all interested students. Upon completion of the required course work, however, students must apply for acceptance into the internship component of the program. Assignment to an internship site is based upon meeting the following criteria:

- Minimum concentration GPA of 2.5 or above,
- Minimum of a “C” grade in each course in the concentration, including BIO 221, PES 325 and 335, and
- Satisfactory performance in an interview and oral exam conducted by the exercise physiology faculty.

**Course Requirements for Physical Education Majors**

Academic core in the physical education major (21 credits) plus elective component in the major (12 hours) and professional concentration (29–31 credits).

1. **Required Courses in the Elective Component of the Major (12 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 360</td>
<td>3</td>
</tr>
<tr>
<td>PES 460</td>
<td>3</td>
</tr>
</tbody>
</table>

   Students may elect any three upper-level PES electives EXCEPT PES 410 and PES 416 to complete the major.

2. **Professional Concentration (29–31 credits)**

   (a) **Corequisites (8 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 205</td>
<td>4</td>
</tr>
<tr>
<td>CHM 206</td>
<td>4</td>
</tr>
</tbody>
</table>

   (b) **Required Exercise Physiology Core (12 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 410</td>
<td>3</td>
</tr>
<tr>
<td>PES 416</td>
<td>3</td>
</tr>
</tbody>
</table>
310 Physical Education and Sport

PEP 361 Cardiac Rehabilitation 3
PEP 458 Internship 3

(c) Electives (9–11 credits)
PEP 343 Advanced Weight Training 3
BIO 321 Anatomy and Physiology I 4
BIO 322 Anatomy and Physiology II 4
BIO 466 General Endocrinology 3
BIO 467 Biochemistry I 3
BIO 468 Biochemistry II 3
CHM 305 Organic Chemistry I 4
CHM 306 Organic Chemistry II 4
HLS 311 Nutrition 3
MTH 201 Calculus I 3
CSC XXX Computer Programming 3
An approved statistics course 3
PES 401 Physical Activity in Adulthood 3
PES 405 Obesity in Society 3

For Non-physical Education Majors
In addition to meeting all requirements described above under (2) Professional Concentration, non-majors also must complete the following:
BIO 221 Survey of Anatomy and Physiology 4
PES 325 Kinesiological Bases for Exercise and Sport 4
PES 335 Physiological Bases for Exercise and Sport 4

F. Minor in Coaching Athletics
The regulations of the Commissioner of Education of the New York State Department of Education require individuals who coach an interscholastic athletic team to complete an approved program for coaches prior to or within the first three years of their employment. (Valid First Aid, CPR and child abuse certificates are required for initial employment.)
The SUNY Brockport coaching minor, which is designed for students who are not in the physical education teacher certification program, fulfills this requirement and also provides greater depth in preparation for prospective coaches in schools, sports clubs, community programs, colleges, or other athletic organizations.

Courses: Credits
PEP 351 Coaching Sports 3
PEP 352 Scientific Foundations of Coaching 3
PEP 3XX Coaching Clinics (3 required) 3
PEP 3XX Advanced Performance 3
PEP 354 Coaching Practicum 4
PEP XXX Elective (approved by coaching coordinator) 2

**Total:** 18*

* Plus a state-approved child abuse class/workshop (typically two-three clock hours in length).
** Plus a state-approved and current First Aid (including AED training) and CPR certification.
### Physical Education Major Courses

#### Beginning-level Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 112</td>
<td>Beginning Diving</td>
<td>1</td>
</tr>
<tr>
<td>PES 114</td>
<td>Beginning Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PES 121</td>
<td>Aerobic Dance</td>
<td>1</td>
</tr>
<tr>
<td>PES 122</td>
<td>Rhythmic Skills I</td>
<td>1</td>
</tr>
<tr>
<td>PES 131</td>
<td>Beginning Gymnastics</td>
<td>1</td>
</tr>
<tr>
<td>PES 141</td>
<td>Beginning Bowling (fee)</td>
<td>1</td>
</tr>
<tr>
<td>PES 142</td>
<td>Beginning Handball</td>
<td>1</td>
</tr>
<tr>
<td>PES 143</td>
<td>Beginning Weight Training</td>
<td>1</td>
</tr>
<tr>
<td>PES 144</td>
<td>Beginning Fencing</td>
<td>1</td>
</tr>
<tr>
<td>PES 145</td>
<td>Beginning Ice Skating</td>
<td>1</td>
</tr>
<tr>
<td>PES 146</td>
<td>Beginning Judo</td>
<td>1</td>
</tr>
<tr>
<td>PES 147</td>
<td>Tae Kwon Do</td>
<td>1</td>
</tr>
<tr>
<td>PES 151</td>
<td>Beginning Archery</td>
<td>1</td>
</tr>
<tr>
<td>PES 152</td>
<td>Beginning Cycling</td>
<td>1</td>
</tr>
<tr>
<td>PES 154</td>
<td>Beginning Golf (fee)</td>
<td>1</td>
</tr>
<tr>
<td>PES 155</td>
<td>Beginning Jogging</td>
<td>1</td>
</tr>
<tr>
<td>PES 156</td>
<td>Beginning Skiing (fee)</td>
<td>1</td>
</tr>
<tr>
<td>PES 157</td>
<td>Beginning Track &amp; Field</td>
<td>1</td>
</tr>
<tr>
<td>PES 161</td>
<td>Beginning Badminton</td>
<td>1</td>
</tr>
<tr>
<td>PES 162</td>
<td>Beginning Racquetball</td>
<td>1</td>
</tr>
<tr>
<td>PES 163</td>
<td>Beginning Table Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PES 164</td>
<td>Beginning Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PES 171</td>
<td>Beginning Basketball</td>
<td>1</td>
</tr>
<tr>
<td>PES 172</td>
<td>Beginning Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PES 181</td>
<td>Beginning Baseball</td>
<td>1</td>
</tr>
<tr>
<td>PES 183</td>
<td>Beginning Lacrosse</td>
<td>1</td>
</tr>
<tr>
<td>PES 186</td>
<td>Beginning Soccer</td>
<td>1</td>
</tr>
<tr>
<td>PES 187</td>
<td>Beginning Softball</td>
<td>1</td>
</tr>
<tr>
<td>PES 137</td>
<td>Beginning Field Hockey</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Intermediate Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 212</td>
<td>Intermediate Diving</td>
<td>1</td>
</tr>
<tr>
<td>PES 213</td>
<td>Scuba Diving (fee)</td>
<td>2</td>
</tr>
<tr>
<td>PES 214</td>
<td>Intermediate Swimming</td>
<td>1</td>
</tr>
<tr>
<td>PES 222</td>
<td>Rhythmic Skills II</td>
<td>1</td>
</tr>
<tr>
<td>PES 231</td>
<td>Intermediate Gymnastics</td>
<td>1</td>
</tr>
<tr>
<td>PES 241</td>
<td>Intermediate Bowling (fee)</td>
<td>1</td>
</tr>
<tr>
<td>PES 243</td>
<td>Intermediate Weight Training</td>
<td>1</td>
</tr>
<tr>
<td>PES 244</td>
<td>Intermediate Fencing</td>
<td>1</td>
</tr>
<tr>
<td>PES 245</td>
<td>Intermediate Ice Skating</td>
<td>1</td>
</tr>
<tr>
<td>PES 246</td>
<td>Intermediate Judo</td>
<td>1</td>
</tr>
<tr>
<td>PES 248</td>
<td>Intermediate Wrestling</td>
<td>1</td>
</tr>
<tr>
<td>PES 251</td>
<td>Intermediate Archery</td>
<td>1</td>
</tr>
<tr>
<td>PES 252</td>
<td>Intermediate Bicycle Touring</td>
<td>1</td>
</tr>
<tr>
<td>PES 253</td>
<td>Intermediate Climbing/Backpacking</td>
<td>2</td>
</tr>
<tr>
<td>PES 254</td>
<td>Intermediate Golf (fee)</td>
<td>1</td>
</tr>
<tr>
<td>PES 255</td>
<td>Intermediate Distance Running</td>
<td>1</td>
</tr>
<tr>
<td>PES 256</td>
<td>Intermediate Skiing (fee)</td>
<td>1</td>
</tr>
<tr>
<td>PES 257</td>
<td>Intermediate Track and Field</td>
<td>1</td>
</tr>
<tr>
<td>PES 261</td>
<td>Intermediate Badminton</td>
<td>1</td>
</tr>
<tr>
<td>PES 262</td>
<td>Intermediate Racquetball</td>
<td>1</td>
</tr>
<tr>
<td>PES 263</td>
<td>Intermediate Table Tennis</td>
<td>1</td>
</tr>
<tr>
<td>PES 264</td>
<td>Intermediate Tennis</td>
<td>1</td>
</tr>
</tbody>
</table>
Physical Education and Sport

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 271</td>
<td>Intermediate Basketball</td>
<td>1</td>
</tr>
<tr>
<td>PES 272</td>
<td>Intermediate Volleyball</td>
<td>1</td>
</tr>
<tr>
<td>PES 281</td>
<td>Intermediate Baseball</td>
<td>1</td>
</tr>
<tr>
<td>PES 282</td>
<td>Intermediate Football</td>
<td>1</td>
</tr>
<tr>
<td>PES 283</td>
<td>Intermediate Lacrosse</td>
<td>1</td>
</tr>
<tr>
<td>PES 286</td>
<td>Intermediate Soccer</td>
<td>1</td>
</tr>
<tr>
<td>PES 287</td>
<td>Intermediate Softball</td>
<td>1</td>
</tr>
<tr>
<td>PES 237</td>
<td>Intermediate Field Hockey</td>
<td>1</td>
</tr>
</tbody>
</table>

**Advanced Courses**
(Also meet requirements in physical education major)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PES 314</td>
<td>Advanced Swimming</td>
<td>3</td>
</tr>
<tr>
<td>PES 331</td>
<td>Advanced Gymnastics</td>
<td>3</td>
</tr>
<tr>
<td>PES 343</td>
<td>Advanced Weight Training</td>
<td>3</td>
</tr>
<tr>
<td>PES 348</td>
<td>Advanced Wrestling</td>
<td>3</td>
</tr>
<tr>
<td>PES 353</td>
<td>Advanced Climbing/Backpacking</td>
<td>3</td>
</tr>
<tr>
<td>PES 354</td>
<td>Advanced Golf (fee)</td>
<td>3</td>
</tr>
<tr>
<td>PES 355</td>
<td>Advanced Distance Running</td>
<td>3</td>
</tr>
<tr>
<td>PES 356</td>
<td>Advanced Alpine Skiing (fee)</td>
<td>3</td>
</tr>
<tr>
<td>PES 357</td>
<td>Advanced Snowboarding</td>
<td>3</td>
</tr>
<tr>
<td>PES 361</td>
<td>Advanced Badminton</td>
<td>3</td>
</tr>
<tr>
<td>PES 362</td>
<td>Advanced Racquetball</td>
<td>3</td>
</tr>
<tr>
<td>PES 364</td>
<td>Advanced Tennis</td>
<td>3</td>
</tr>
<tr>
<td>PES 371</td>
<td>Advanced Basketball</td>
<td>3</td>
</tr>
<tr>
<td>PES 372</td>
<td>Advanced Volleyball</td>
<td>3</td>
</tr>
<tr>
<td>PES 373</td>
<td>Advanced Ice Hockey</td>
<td>3</td>
</tr>
<tr>
<td>PES 381</td>
<td>Advanced Baseball</td>
<td>3</td>
</tr>
<tr>
<td>PES 382</td>
<td>Advanced Football</td>
<td>3</td>
</tr>
<tr>
<td>PES 386</td>
<td>Advanced Soccer</td>
<td>3</td>
</tr>
<tr>
<td>PES 387</td>
<td>Advanced Softball</td>
<td>3</td>
</tr>
</tbody>
</table>

**Athletic Elective Skill Area**

Please note: Each course in the athletic elective skill area can be taken only once per season for credit toward graduation requirements. Students must complete a full season in order to receive credit.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATH 200</td>
<td>Varsity Baseball (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 201</td>
<td>Varsity Basketball—Men (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 202</td>
<td>Varsity Cross Country—Men and Women (fall)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 203</td>
<td>Varsity Football (fall)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 206</td>
<td>Varsity Lacrosse</td>
<td>1</td>
</tr>
<tr>
<td>ATH 207</td>
<td>Varsity Soccer—Men (fall)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 208</td>
<td>Varsity Swimming—Men and Women (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 210</td>
<td>Varsity Track and Field—Men and Women (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 211</td>
<td>Varsity Wrestling (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 212</td>
<td>Varsity Ice Hockey (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 221</td>
<td>Varsity Basketball—Women (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 224</td>
<td>Varsity Field Hockey (fall)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 226</td>
<td>Varsity Gymnastics (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 229</td>
<td>Varsity Softball (spring)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 230</td>
<td>Varsity Tennis (fall)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 231</td>
<td>Varsity Volleyball (fall)</td>
<td>1</td>
</tr>
<tr>
<td>ATH 234</td>
<td>Varsity Soccer—Women (fall)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Participation in a varsity sport does not satisfy the advanced performance requirements in the major.
Physical Education Professional Skill Area

Professional skill classes are open only to students who intend to pursue the physical education teacher certification curriculum. Professional skill classes place a premium on learning to teach skills associated with a specific physical activity and include development of lesson plans and practice teaching.

- **PEP 201 Educational Dance**
- **PEP 202 Adventure/Challenge Activities**
- **PEP 203 Multicultural/Contemporary Activities**
- **PEP 204 Track and Field/Softball**
- **PEP 205 Golf/Archery**
- **PEP 206 Educational Gymnastics**
- **PEP 211 Lacrosse/Field Hockey**
- **PEP 212 Speedball/Team Handball**
- **PEP 213 Soccer/Frisbee**
- **PEP 214 Basketball/Flag Football**
- **PEP 221 Volleyball/Racquetball**
- **PEP 222 Tennis/Badminton**

Physical Education Major Courses

**PES 290 Ethics of Fair Play in Sport and Life (A,H).** Enables students to examine and understand fair play as a moral concept, and to develop students’ abilities to ascertain the demands of fair play in sports contests and other applicable life situations. Provides for clarification and evaluation of different types of reasons for action, examination of different standards for fair action, and an opportunity to evaluate fair actions in areas of interest to students. Gives attention to the evaluation of moral maturity. 3 Cr.

**PES 305 Significance of Physical Activity (A).** Examines the intrinsic and extrinsic values of physical activity across the lifespan from philosophical and historical perspectives. Includes a critical analysis of the contribution physical activity makes to the liberating consequences of healthful living, personal pleasure, self-knowledge, and skill acquisition. Major societal trends impacting on physical activity and its related professions are identified and examined. 3 Cr. Every Semester.

**PES 315 Physical Fitness for Healthful Living (A).** Requires student to pass all components of a health-related fitness test. Emphasizes developing health-related components of physical fitness through physical activity. Allows student to gain understanding of how physical activity enhances health-related physical fitness. Includes laboratory. 3 Cr. Every Semester.

**PES 325 Kinesiological Bases for Exercise and Sport (A).** Prerequisites: BIO 221 or either BIO 321 or BIO 322. Involves study of the anatomical bases of movement in exercise and sport and application of kinesiological principles to movement and sport-specific skills. Includes laboratory experiments to provide opportunity for the analysis of exercise and sport from both anatomical and mechanical perspectives, muscle roles, types of muscle contractions, movement sequencing, and kinesiological analyses. Offered every semester. 4 Cr. Every Semester.

**PES 335 Physiological Basis for Exercise and Sport (A).** Prerequisites: BIO 221, BIO 321 or BIO 322. Focuses on the physiological bases of active living. Addresses functional capacity of the human body to adjust to demands of work entailing various duration, intensities and technical requirements. Considers all age populations, as well as both genders. Makes comparisons between sedentary and nonsedentary or trained individuals. Assesses individual limitations to performance, as well as possibilities for safely extending these limitations. Includes laboratory. 4 Cr.

**PES 345 Skill Acquisition and Performance (A).** Focuses upon the study of the acquisition and performance of motor skills emphasizing relevant concepts from motor learning, motor development and sport psychology. Provides students with an opportunity to learn new sport skills. Includes laboratory. 4 Cr. Every Semester.

**PES 350 History of Sport, Play and Exercise (A).** Provides a broad look at the history of physical activity from ancient to modern times, and the effects of social institutions (e.g., war, religion, politics) on the development and role of sport in the Western world. 3 Cr.
PES 358 Advanced Snowboarding (A). Advanced snowboarding is an advanced level activity course designed to improve the intermediate level snowboarder, to refine the advanced snowboarder, and to explore the extremes of snowboarding. Skill related topics include advanced skills in body position, stability and board control to effectively and efficiently perform on increasingly varied, faster, and steeper terrains. Additional topics include history, safety, etiquette, technique, biomechanics, physiology, and limitations. 3 Cr.

PES 360 Philosophy of Sport (A). Examines fundamental issues in sport from a philosophical perspective. Focuses on the theoretical frameworks through which these issues can be understood. Emphasizes the practical import that different theories of sport have and institutional decision-making and practices. Examines the philosophical underpinnings of the experience of sport participation. 3 Cr.

PES 385 Basic Athletic Training (A). Prerequisite: BIO 221 (may be taken concurrently). Focuses on the fundamental knowledge of sports injuries and their care. Introduces and explains various techniques in treatment, prevention and rehabilitation of sports injuries. 3 Cr. Every Semester.

PES 391 Stress and Tension (A,I). Thoroughly evaluates concepts of stress and tension in terms of their philosophic bases (mind-oriented, body-oriented or interactional models), and supported by evolutionary explanations of physical, mental and cultural phenomena contributing to a variety of stress and tension-related disorders. Critically evaluates contemporary approaches in therapy designed to impact upon stress and tension, enabling the student to construct a personal coping strategy. 3 Cr.

PES 396 Women in Sport (A,I,W). Cross-listed as WMS 396. Examines the historical, contemporary and future perspectives of women in sport. Reviews insights from history, psychology and sociology related to women in sport, as well as athletes’ perceptions of their performance. Focuses on information and issues which are fundamental to understanding women’s participation in sport. 3 Cr. Every Semester.

PES 399 Independent Study (A). To be defined in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. 1-6 Cr. Every Semester.

PES 401 Development in the Aging Adult (A). Focuses on how people age physically and how physical activity affects various aspects of life. The class will cover influences on physical activity and the quality of life from young to older adulthood. The course will be beneficial for a wide range of disciplines including physical education, exercise physiology, cardiac rehabilitation, physical therapy, athletic training, health promotion, counseling psychology, gerontology, etc. 3 Cr. Summer.

PES 405 Obesity in Society (A,I). Provides an interdisciplinary overview of the causes, treatment and prevention of obesity/overweight among children, adolescents and adults in the United States. The complex interaction between psychological, sociological, biological, physiological and environmental factors will be explored. The effectiveness of individual, community and school-based obesity prevention programs will be discussed, as well as safe and appropriate methods of weight loss. Exercise, physical activity and dietary guidelines for Americans will be examined. 3 Cr.

PES 410 Physiology of Exercise II (A). Examines the physiologically related effects of sport activities on the body’s systems, including fatigue, strength, flexibility; physiological responses of the body before, during and after training; scientific research in exercise physiology; and the use of lab equipment for sport physiology. 3 Cr. Every Semester.

PES 411 Advanced Athletic Training (A). Prerequisite: PES 285. Covers muscles, tendons and ligaments, and the injury mechanism involved in given injuries for each major articulation of the body; inflammatory responses and wound healing; the effects of locally applied heat and cold on each; prevention, care and reconditioning techniques for sport injuries; and methods used during each phase of injury conditioning-reconditioning. 3 Cr. Every Semester.

PES 412 Athletic Injury Assessment (A). Prerequisite: PES 411. Focuses on various anatomical/physiological systems of the human body as they relate to athletic injury. Emphasizes identifying anatomical structures and landmarks in the human body, as well as recognizing and assessing injuries occurring during athletic participation. 3 Cr. Spring.

PES 413 Human Development and Movement (A). Focuses on the relationship between physical activity and selected aspects of physiological, psychological, intellectual and social growth and development. Investigates atypical, as well as typical, human conditions influencing movement. 3 Cr. Every Semester.

PES 414 Assessment in Physical Education (A). Explores how to measure and evaluate performance in physical activity and sport. Includes content related to understanding and applying the
following criteria when selecting tests: purpose, types, technical adequacy, nondiscriminatory considerations, economy, and flexibility. Teaches students basic statistical protocols used to analyze and interpret test data. 3 Cr. Every Semester.

PES 416 Laboratory Techniques in Exercise Physiology (A). Prerequisite PES 335: Cross-listed as BIO 416. Complements the theoretical preparation of students in exercise physiology. Provides experiences in the measurement of acute and chronic adaptations to exercise, the use of technology in the measurement and assessment of physiological functioning during such conditions, and the maintenance and calibration of such equipment. Active immerses students in the subject to better conceptualize, and internalize, what it means to administer tests, and analyze and interpret data in a meaningful and systematic manner. 3 Cr. Spring.

PES 420 Biomechanics (A). Corequisite: PES 325. Focuses on the observation, analysis, and description of movement skills. Includes quantitative and qualitative analyses; descriptive systems; the applications of basic laws and principles of physics; and applications to basic movements, sport training, and technique 3 Cr.

PES 430 Psychology of Sport (A). Studies the application of such psychological concepts as cognition, emotions, perception and memory to sport and sport participation. Discusses factors such as motivational cognition, imagery and cognitive interventions. 3 Cr.

PES 441 Sport and Society (A). An introductory survey course which investigates the linkage between sport and society from a sociological perspective. The sport-society nexus is examined from functionalist, conflict critical, and feminist theoretical frameworks. Organized around several intellectual discourses, sport is analyzed and discussed within multiple social and cultural contexts. Challenges students to discover how sport can be made more democratic, more socially just, more accessible to all. 3 Cr. Every Semester.

PES 445 Social Psychology of Sport (A). Study of individuals and groups engaged in physical activity and sport and the social influence processes which affect self, behavior and performance. Emphasis on the social context in which individuals and groups participate in physical activity and sport and the impact social processes have on athlete’s individual and group variables. Topics include self-esteem, formal leadership, coach-athlete dyad, group dynamics and social facilitation. 3 Cr. Fall.

PES 446 Sports Spectating in the United States (A). An interdisciplinary study of the phenomenon of sports spectatorship/sport fandom in American society; discussion of issues pertaining to sports spectating from theoretical, empirical and experiential perspectives, e.g., patterns of sport spectatorship, the ‘business’ of sports spectating, psychology of sport fandom, sports spectating as popular culture, spectator violence, and the importance of sport spectatorship in society; opportunities for student-initiated field research projects. 3 Cr. Spring.

PES 451 The Modern Olympic Games (A). Examines the development of the Modern Olympic Games from an interdisciplinary approach. Focuses on the Olympic Movement as an evolving cultural phenomenon in which local as well as global social, economic and political forces are contested. Addresses the dynamic character of the Olympic Movement by studying its history, the philosophy of Olympism, and current and past problems (commercialism, gigantism, boycotts) associated with the Olympic Games. 3 Cr. Spring.

PES 460 Ethics of Sport (A). Examines how basic ethical theories relate to problems facing sport communities and professionals today. Provides critical analysis of ethical dilemmas in contemporary sport. Emphasizes the understanding of ethical frameworks and the application of these frameworks to ethical problems arising in sport contexts. 3 Cr. Every Semester.

PES 475 Physical Education Honors - Performance (A). Emphasizes the refinement of one activity skill at the level of master. Theory work determined in consultation with instructor. 3 Cr. By Arrangement.

PES 490 Physical Education Exchange Program (A). Provides several opportunities for physical education majors of at least junior status to spend one or more semesters studying in Canada (Dalhousie University), or at one of several overseas locations, e.g., Chelsea School of Human Movement (England), Dunfermline College of Physical Education (Scotland), University of Ulster (Northern Ireland), College of Winneba (Ghana), or Zinman College of Physical Education (Israel). 15 Cr. Every Semester.

PES 495 Problems in Physical Education (A). To be defined by the instructor in accordance with the specific topic to be covered that semester. May be repeated, but under another topic area in physical education. Additional information may be obtained from the department. 1-3 Cr.
PEP 255 Taping for Athletic Training (B). *Prerequisite: PES 285.* Provides the entry-level athletic training student with knowledge of supplies utilized for taping and strapping in athletics; and provides instruction in functional application of taping and wrapping in order to prevent/reduce athletic injury. 1 Cr.

PEP 276 Softball Officiating (B). Spring. 1 Cr.

PEP 277 Volleyball Officiating (B). Fall. 1 Cr.

PEP 278 Basketball Officiating (B). Fall. 1 Cr.

PEP 279 Football Officiating (B). Spring. 1 Cr.

PEP 281 Water Safety Instructor (B). Provides for the analysis and correction of skills, sound teaching progressions, and learning proper techniques of swimming and life-saving skills. Successful completion results in Red Cross FIT (Fundamentals of Instructor Training) Certification. 2 Cr. Fall.

PEP 282 Lifeguard Training (B). Improves life guarding skills necessary to save one’s own life or the lives of others in the event of an emergency, in accordance with American Red Cross requirements. Includes certification in CPR and AED training. 2 Cr. Fall.

PEP 350 Scientific Foundations of Coaching (B). For non-physical education majors who wish to develop a beginning understanding of the scientific foundations of coaching athletic teams. Includes exposure to the biological sciences, the psycho-social aspects of sport, as well as growth and development of athletes. Meets New York state requirements for Health Sciences Applied to Coaching. 3 Cr.

PEP 351 Coaching Sports (B). Covers the rules, duties, legal aspects and administrative methods of coaching an athletic team, and the philosophies, methods and strategies involved in coaching. 3 Cr. Every Semester.

PEP 352 Conditioning Programs in Athletics (B). For non-physical education majors who wish to develop a beginning understanding of the scientific foundations of coaching athletic teams. Includes exposure to the biological sciences, the psycho-social aspects of sport, as well as growth and development of athletes. Meets New York state requirements for Health Sciences Applied to Coaching. 1 Cr. Spring.

PEP 353 Administration of Intramurals (B). Covers the philosophy of intramural sport organization and administration of an intramural activity, administrative problems, and current trends in intramural programming. 3 Cr. Every Semester.

PEP 354 Coaching Practicum (B). *Course fee.* Prerequisites: PEP 285 and PEP 351. Requires students to perform as members of a coaching staff for one season; also requires goal setting and planning communication. 4 Cr. Every Semester.

PEP 356 Therapeutic Modalities (B). *Corequisite: PES 385.* Emphasizes the use and knowledge of various therapeutic modalities used in athletic training. Stresses a working knowledge of each modality as well as its practical application. 3 Cr. Every Semester.

PEP 357 Muscle Testing (B). *Prerequisites: PES 411, PES 412, PEP 356 and PEP 357.* Provides extensive experience with an athletic team, including applying techniques related to preventive, protective and emergency care measures. 3 Cr. Spring.

PEP 358 Therapeutic Exercise (B). *Prerequisites: PES 411, PES 412, PEP 356 and PEP 357.* Provides intensive experience in athletic training in a seminar format. Examines athletic training room techniques, and the design of a training room facility including budget, equipment and supplies. 3 Cr. Spring.

PEP 359 Organization and Administration Athletic Training (B). *Prerequisites: PES 385, PES 411, PES 412, PEP 356 and PEP 357.* Provides intensive experience in athletic training in a seminar format. Examines athletic training room techniques, and the design of a training room facility including budget, equipment and supplies. 3 Cr. Spring.

PEP 360 Introduction to Sport Management Theory (B). Examines the implications of management theory for sport organizations, and management considerations in retail, manufacturing, professional sports, sport services and athletic settings. 3 Cr. Fall.

PEP 361 Cardiac Rehabilitation: Theory and Applications (B). *Prerequisite: PES 335.* Studies physiological responses to exercise, graded exercise testing, and program prescriptions for prevention and rehabilitation. Provides experience in exercise tolerance testing and the reading of EKGs. 3 Cr. Spring.

PEP 379 Athletic Training for the Teacher/Coach (B). Focuses on the fundamental knowledge of athletic injuries; their prevention and care. Introduces and explains various techniques in prevention and care of injuries, strength and condi-
tioning, pre-in-off-season training, nutrition, taping and wound care. 3 Cr. Every Semester.

PEP 381 Coaching Basketball (B). Exposes students to sport-specific aspects of coaching, including instructional techniques, strategies, conditioning, organizational techniques and safety considerations, as appropriate. 1 Cr.

PEP 382 Coaching Football (B). Exposes students to sport-specific aspects of coaching, including instructional techniques, strategies, conditioning, organizational techniques and safety considerations, as appropriate. 1 Cr.

PEP 383 Coaching Gymnastics (B). Exposes students to sport-specific aspects of coaching, including instructional techniques, strategies, conditioning, organizational techniques and safety considerations, as appropriate. 1 Cr.

PEP 384 Coaching Soccer (B). Exposes students to sport-specific aspects of coaching, including instructional techniques, strategies, conditioning, organizational techniques and safety considerations, as appropriate. 1 Cr.

PEP 385 Coaching Softball (B). Exposes students to sport-specific aspects of coaching, including instructional techniques, strategies, conditioning, organizational techniques and safety considerations, as appropriate. 1 Cr.

PEP 386 Coaching Swimming (B). Exposes students to sport-specific aspects of coaching, including instructional techniques, strategies, conditioning, organizational techniques and safety considerations, as appropriate. 1 Cr.

PEP 387 Coaching Volleyball (B). Exposes students to sport-specific aspects of coaching, including instructional techniques, strategies, conditioning, organizational techniques and safety considerations, as appropriate. 1 Cr.

PEP 388 Coaching Wrestling (B). Exposes students to sport-specific aspects of coaching, including instructional techniques, strategies, conditioning, organizational techniques and safety considerations, as appropriate. 1 Cr.

PEP 399 Independent Study (B). To be defined in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. 1-3 Cr. Every Semester.

PEP 441 Introduction to Teaching Physical Education (B). Course fee. Focuses on factors which influence the development of a PreK-12 curriculum. Allows students to examine various curricu-

lum models. Provides opportunities for observing and learning about school. Examines variables associated with the teaching and learning process. Includes the use of observation instruments for systematic development of teaching skills. Includes laboratory/clinical field experiences. 3 Cr.

PEP 442 Secondary Methods and Instruction (B). Prerequisites: PEP 441. Allows students to develop a knowledge of current concepts and trends in secondary physical education and the ability to plan and implement a physical education program designed to meet the needs of middle school and high school youth. Requires a field experience. 4 Cr.

PEP 444 Elementary Methods and Instruction (B). Prerequisite: PEP 441. Allows students to acquire the skills and knowledge for a fundamental foundation necessary for sequencing and teaching physical education activities in the elementary school setting. Requires a field experience. 4 Cr.

PEP 445 Adapted Physical Education (B). Prerequisite: PEP 441. Develops a knowledge of current concepts and trends in adapted physical education and students’ ability to assess, plan and implement a physical education program designed to meet the unique needs of individuals with disabilities. 3 Cr.

PEP 451 Multicultural Perspectives in Physical Education (B). Prerequisite: PEP 441. Issues of race, class, gender, etc. relative to physical activity are emphasized. Practical applications for teaching physical education in culturally diverse settings are also discussed. 3 Cr.

PEP 458 Internship in Exercise Physiology (B). Course fee. Provides a supervised, practical experience in a fitness organization, including opportunities for students to participate in the day-to-day duties of a fitness organization and to observe techniques of medical personnel. 3 Cr. Every Semester.

PEP 460 Administrative Practices in Sport Management (B). Prerequisite: PEP 360. Covers the management functions involved in amateur, business, services, educational and professional sports organizations. Includes topics such as business procedures, legal and financial responsibilities, management of sporting events, health aspects, staff requirements and relationships, public relations, players recruiting and eligibility, employee relationships, and leadership techniques. 3 Cr. Spring.

PEP 461 Problems in Sports Management (B). Prerequisite: PEP 460. Considers current problems in sport management in a seminar format. Re-
requires solution of practical problems, and visits to
sport facilities to consider management problems.
3 Cr. Every Semester.

PEP 467 Internship in Sport Management (B).
Course fee. Prerequisites: PEP 360, PEP 460 and
PEP 461. Provides entry-level experience in a se-
lected sport organization, including participation
in its day-to-day duties and observation of higher
level management operations. 6 Cr. Every
Semester.

PEP 471 Clinical Experience in Athletic Train-
ing I (B). Course fee. Prerequisite: PES 385. Pro-
vides initial athletic training clinical experience.
Focuses on the application of basic psychomotor
skills involved in the prevention, management,
and rehabilitation of athletic injuries and the daily
operation of the athletic training room.
1 Cr. Fall.

PEP 472 Clinical Experience in Athletic Train-
ing II (B). Course fee. Prerequisites: PES 385, PES
411 and PEP 471. Provides intermediate level
athletic training clinical experience. Focuses on
evaluation and management of athletic injuries as
well as performing daily practice and game cover-
age for athletic teams. 1 Cr. Spring.

PEP 473 Clinical Experience in Athletic Train-
ing III (B). Course fee. Prerequisites: PES 385, PES
411, PES 412, PEP 471 and PEP 472. Provides
advanced-level athletic training clinical experi-
ce. Focuses on evaluation and management
of athletic injuries as well as the application of
therapeutic modalities and therapeutic exercise in
the rehabilitation of athletic injuries. In addition,
includes daily practice and game coverage. 1 Cr.
Fall.

PEP 474 Clinical Experience in Athletic Train-
ing IV (B). Course fee. Prerequisites: PES 411, PES
412, PEP 471, PEP 472 and PEP 473. Provides
advanced-level athletic training clinical experi-
ce. Focuses on organization and administrative
aspects of athletic training, as well as interaction
with other allied health personnel. Begins focus
toward NATA certification exam. 1 Cr. Spring.

PEP 476 Seminar in Student Teaching/Coach-
ing (B). Provides the opportunity to discuss issues
and problems which arise in student teaching.
Also provides for coaching competencies to be
met in the student teaching practicum, including
such topics as planning, assessment and evaluation
in a coaching environment. 2 Cr. Every Semester.

PEP 481 Instructional Strategies in Adapted
Physical Education (B). Provides a study of in-
structional strategies relevant and appropriate to
adapted physical education. Emphasizes instruc-
tion for students with mental retardation, learning
disabilities, and/or behavioral/emotional disabili-
ties. 3 Cr. Fall.

PEP 482 Adapted Physical Activity and Sport
(B). Prerequisite: PES 413. Examines the effects of
physical and sensory disabilities on the physical/motor performance of children and youth. Em-
phasizes the effects of spinal cord injuries, cerebral
palsy, and auditory and visual impairments. In ad-
novation, discusses implications for the selection and
modification of appropriate activities. 3 Cr. Fall.

PEP 483 Early Childhood Physical Education
(B). Involves teaching physical education to chil-
dren ages birth through 5 with and without dis-
abilities. Emphasizes developmentally appropriate
practices for providing motor programs to young
children. Incorporates a 15 hour field experience
to supplement lectures and discussion. 3 Cr. Every
Semester.

PEP 485 Adapted Physical Education Practi-
cum (B). Prerequisite: PEP 445. Requires students
to teach physical education under the supervision
of a sponsor-teacher. May take place off-campus
at a school or agency. Requires students to teach
a minimum of 90 hours and to utilize knowledge
obtained in prerequisite and co-requisite courses.
3 Cr. Every Semester.

PEP 487 Elementary Student Teaching/Coach-
ing (B). Requires working cooperatively for a
quarter in an elementary school with a master
teacher and a college supervisor to achieve a vari-
ety of specified teaching competencies. 5 Cr. Every
Semester.

PEP 488 Secondary Student Teaching/Coaching
(B). Requires working cooperatively for a quarter
in a secondary school with a master teacher and
College supervisor to achieve a variety of specified
teaching competencies. 5 Cr. Every Semester.

PEP 499 Independent Study (B). To be defined
in consultation with the instructor-sponsor and in
accordance with the procedures of the Office of
Academic Advisement prior to registration.
1-6 Cr. Every Semester.
DEPARTMENT OF PHYSICS
125 Smith Hall
(585) 395-2182

Chair and Professor: Stanley F. Radford, PhD, Wayne State University; Associate Professor: Mohammed Z. Tahar, PhD, Boston University; Assistant Professor: Eric M. Monier, PhD, University of Pittsburgh; H. Trevor Johnson-Steigelman, PhD, University of Wisconsin-Milwaukee.

Physics is the study of the physical properties of the universe and of the fundamental properties and interactions of matter and energy. It has applications in every field of pure and applied science, such as engineering, optics, materials science, space science, and medicine. A degree in physics is excellent preparation for:

- Graduate study in physics, engineering, astronomy, or mathematics, leading to a career in university and college teaching and research, or a leadership position in industrial or government research projects;
- Teaching at the secondary level (grades 7-12);
- Employment as an engineer or technician in an industry, government, or university laboratory;
- Professional school in law, medicine, or business.

Physics Major

Students majoring in physics must take the physics core courses as well as required supporting courses in mathematics, chemistry and computer science. These courses will prepare students to attend graduate school in physics or a related field; work as technicians or engineers in academia, industry, or government; or attend law or medical school.

In addition to the physics major, the department also offers a Minor in physics.

Certification for Secondary Teaching in Physics

The Department of Physics, in conjunction with the Department of Education and Human Development, offers a program that leads to provisional certification in secondary level (grades 7-12) physics teaching. Students pursuing this option must satisfy the course requirements for the physics major; however, additional course work outside the department is needed to satisfy the requirements for certification. For a complete listing of the requirements for secondary Teacher Certification, consult the Department of Education and Human Development section – in this catalog.

Mathematical Preparation

Students planning to major in physics should have completed algebra, geometry, trigonometry and pre-calculus in high school; calculus is a desirable but not necessary preparation. Students who are unable to take Calculus I (MTH 201) in their first semester will be unable to complete a degree in physics in four years without summer study.

While at SUNY Brockport, students majoring in physics must complete courses in calculus and differential equations. Students who plan to go on to graduate study in physics or engineering are advised to take additional mathematics courses.

Requirements for a Major in Physics

<table>
<thead>
<tr>
<th>Physics Core</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHS 201-202 College Physics I and II with Laboratory</td>
<td>8</td>
</tr>
<tr>
<td>PHS 300 Classical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHS 301 Mathematical Methods of Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHS 302 Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHS 303 Classical Physics Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>
PHS 317  Modern Physics  3
PHS 318  Modern Physics Laboratory  1
PHS 320  Electricity and Magnetism  3
PHS 411  Quantum Mechanics  3
PHS 400-401  Physics Seminar I and II  2
PHS 408-409  Physical Methods Laboratory I-II  2
PHS 300/400  a 300/400-level Physics elective  3

Total: 35

Supporting Courses:
MTH 201-202-203  Calculus I-II-III  9
MTH 255  Ordinary Differential Equations  3
MTH 456  Partial Differential Equations  3
CHM 205-206  College Chemistry I-II  8
CSC 203  Fundamentals of Computer Science 1  4

Total: 27

Total credit hours for the physics major  62

Students pursuing Teacher Certification should refer to the requirements of the Department of Education and Human Development.

Requirements for a Minor in Physics
PHS 201-202  College Physics I-II with Laboratory  8
PHS 300  Classical Physics  3
PHS 301  Mathematical Methods of Physics  3
PHS 303  Classical Physics Laboratory  1
and one of the following
PHS 317  Modern Physics  3
OR
PHS 302  Classical Mechanics  3
OR
PHS 320  Electricity and Magnetism  3

Total: 18

The Physics Major can be completed in four years. To make normal progress toward this goal, students should have completed the following courses by the end of the sophomore year: PHS 201, 202, 300, 301, 303, 317, 318, MTH 201, 202, 203, CHM 205 and 206.

Transfer students with a two-year degree from a community college wishing to major in physics will most likely have to take PHS 300, 301 and 303 at SUNY Brockport, since these courses are usually not offered at community colleges. In addition, it would be beneficial for transfer students to have had a course in differential equations. The physics major can still be completed in two years. It is important that transfer students meet with a physics advisor before they register for their first semester courses. At this meeting their two-year schedule of courses can be established.

Teacher Certification can be completed in five years. Students wishing to pursue this option should have completed the courses listed above by the end of the sophomore year. Students should meet with an advisor in the first semester to plan courses for the five years, including one semester entirely devoted to practice teaching. In addition to the requirements for the physics major, Teacher Certification also requires two semesters of biology and two semesters of earth science. Students must also meet the requirements of the Department of Education and Human Development.
Transfer students pursuing Teacher Certification can expect to spend at least three years at SUNY Brockport. Students in this category should have completed the same courses as those listed above. Transfer students interested in Teacher Certification should seek advisement prior to registering for their first semester of Brockport courses.

Physics Courses

PHS 101 The Physics in Toys (A,N). Explores the theoretical bases, scientific method, general principles of classical physics, mechanics, electricity, magnetism and optics at an introductory college level. Presents important physical principles in these areas using lectures and demonstrations with an extensive collection of machines and toys such as Glug-Glug Tug (rocket), Danseuse Magnetique (interacting magnets) and the Two-Speed Gripper (a toy car with interesting motion). Three hours of lecture/demonstration per week. 3 Cr. Every Semester.

PHS 111 General Physics I (A,N). Corequisite: MTH 112. Algebra-based introductory physics. Covers the fundamental principles of mechanics including kinematics, Newton's laws, energy, momentum and their conservation laws; and heat. Closed to anyone who has successfully completed PHS 115. Three hours of lecture per week. 3 Cr. Fall.

PHS 112 General Physics II (A). Prerequisite: PHS 111 or PHS 115. Algebra-based introductory physics. Covers sound, electricity and magnetism, light and quantum physics. Closed to anyone who has successfully completed PHS 116. Three hours of lecture per week. 3 Cr. Spring.

PHS 115 General Physics I With Laboratory (A,L). Corequisite: MTH 112. Algebra-based introductory physics. Covers the fundamental principles of mechanics and heat. Includes experiments in mechanics, including kinematics, Newton's Laws, energy, momentum, and their conservation laws; and heat. Closed to anyone who has successfully completed PHS 111. Three hours of lecture and three hours of lab per week. 4 Cr. Fall.

PHS 116 General Physics II With Laboratory (A). Prerequisite: PHS 111 or PHS 115. Algebra-based introductory physics. Covers sound, electricity and magnetism, light and quantum physics. Includes experiments on sound, electricity and magnetism, optics and modern physics. Closed to anyone who has successfully completed PHS 112. Three hours of lecture and three hours of lab per week. 4 Cr. Spring.

PHS 201 College Physics I with Laboratory (A,L). Corequisite: MTH 201. Introduces the fundamentals of mechanics from kinematics to Newton's laws, energy, momentum and their conservation laws, rotational and harmonic motions, then statics and equilibrium. Three hours of lecture and three hours of lab per week. 4 Cr. Fall.

PHS 202 College Physics II with Laboratory (A). Prerequisites: PHS 201 or PHS 211. Corequisite: MTH 202. Introduces fluids, waves and their propagation, thermodynamics, kinetic theory of gases, and the first and second laws of thermodynamics; and the fundamentals of electricity and magnetism, including fields and potentials, electrical circuits, and Maxwell's equations. Three hours of lecture and three hours of lab per week. 4 Cr. Spring.

PHS 211 College Physics I (A,N). Corequisite: MTH 201. Introduces the fundamentals of mechanics from kinematics to Newton's laws, energy, momentum and their conservation laws, rotational and harmonic motions, then statics and equilibrium. Three hours of lecture per week. 3 Cr. Fall.

PHS 212 College Physics II (A). Prerequisites: PHS 201 or PHS 211; corequisite: MTH 202. Introduces fluids, waves and their propagation, thermodynamics, kinetic theory of gases, and the first and second laws of thermodynamics; the fundamentals of electricity and magnetism, including fields and potentials, electrical circuits, and Maxwell's equations. Three hours of lecture per week. 3 Cr. Spring.

PHS 300 Classical Physics (A). Prerequisite: PHS 202 or PHS 212; corequisite: MTH 203. The first part of a one-year transition to advanced physics. Discusses topics in classical physics with an emphasis on mathematical methods. Includes topics such as linear oscillators, mechanical waves, statistical thermodynamics, electromagnetic fields and geometrical optics. Three hours of lecture per week. 3 Cr. Fall.
PHS 301 Mathematical Methods of Physics (A). Prerequisite: PHS 300. Presents a survey of mathematical methods used in the physical sciences. Includes topics such as vector analysis, linear algebra, partial differentiation, multiple integration, Fourier series and complex analysis. Three hours of lecture per week. 3 Cr. Spring.

PHS 302 Classical Mechanics (A). Prerequisite: PHS 301. Covers the theory of mechanical systems, including Newton’s Laws, conservation principles, the Lagrangian and Hamiltonian formulations, and their applications. Additional topics may include the calculus of variations, special relativity, chaos, and the use of computer software in problem solving. 3 Cr. Fall.

PHS 303 Classical Physics Laboratory (A). Corequisite: PHS 300. Students perform experiments in mechanics, electricity and magnetism, and optics. Introduces methods of data analysis, such as curve fitting and error propagation. Three hours of lab per week. 1 Cr.

PHS 306 Circuits Laboratory (A). Corequisite: PHS 309. Includes experiments such as basic DC and AC measurements, circuit theorems, transient response, frequency response, impedance measurement, and Fourier analysis. Three hours of lab per week. 1 Cr.

PHS 309 Circuit Theory (A). Prerequisite: PHS 301. Treats the operation of resistors, capacitors, and inductors; phasors; circuit theorems; network theorems; signal wave forms; transient and steady-state circuit response; and general network analysis. Three hours of lecture per week. 3 Cr.

PHS 310 Electronics Laboratory (A). Corequisite: PHS 311. Allows students to perform experiments including direct and alternating current circuits, power supplies, solid-state devices, amplifiers, oscillators, and elementary digital circuits. Three hours of lab per week. 1 Cr.

PHS 311 Electronics (A). Prerequisite: PHS 309. Treats the operation of semiconductor devices, diode circuits, single-transistor amplifier design and analysis, multistage amplifiers, feedback amplifiers, oscillators, op-amp circuits, digital circuits, noise, and transducers. Three hours of lecture per week. 3 Cr.

PHS 315 Statics (A). Prerequisite: PHS 301. Presents a detailed study of forces in equilibrium. Applies treatment to single particles, rigid bodies and systems of particles including the analysis of trusses, frictional forces, potential energy, conditions of stability and virtual work. Three hours of lecture per week. 3 Cr.

PHS 317 Modern Physics (A). Prerequisite: PHS 300. Provides an introduction to the theory of special relativity; kinetic molecular theory; the concept of quantization as it applies to matter, charge and energy; the postulates of quantum mechanics; and the solutions of the quantum mechanical wave equation for the simple harmonic oscillator and the hydrogen atom. Three hours of lecture per week. 3 Cr. Spring.

PHS 318 Modern Physics Laboratory (A). Corequisite: PHS 317. Allows students to perform experiments, including charge-to-mass ratio of the electron, photo-electric effect, microwave diffraction, electron diffraction, atomic spectra, the Compton Effect, and measurement of nuclear radiation. Three hours of lab per week. 1 Cr. Spring.

PHS 320 Electricity and Magnetism (A). Prerequisites: PHS 300 and PHS 301. Covers the theory of electromagnetic fields using vector calculus. Includes electrostatic and magnetic fields in vacuum and in matter, time-varying fields, magnetic induction, Maxwell’s Equations and the propagation of electromagnetic waves. May include applications to superconductors, wave guides and radiation fields. Three hours of lecture per week. 3 Cr.

PHS 399 Independent Study in Physics (A). Arranged in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. 1-6 Cr.

PHS 400 Seminar I (A). For juniors or seniors. Includes attendance at seminars, preparation and presentation of short technical talks and participation in career and employment workshops. One hour per week. 1 Cr. Fall.

PHS 401 Seminar II (A). Prerequisite: PHS 400. Includes attendance at seminars and preparation and presentation of a technical talk by each registrant. One hour per week. 1 Cr. Spring.

PHS 408 Physical Methods Laboratory I (A). Prerequisites: MTH 203, PSH 202 and CHM 206. Covers the statistical treatment of data, propagation of errors, graphs, and report writing. Requires students to conduct experiments using modern physical measurement techniques, produce written scientific reports, and make oral presentations describing and analyzing the methods and their results. Three hours lab per week. 1 Cr. Fall.
PHS 409 Physical Methods Laboratory II (A). Prerequisite: PHS 408. Requires students to conduct experiments using modern physical measurement techniques, produce written scientific reports, and make oral presentations describing and analyzing the methods and their results. 1 Cr. Spring.

PHS 411 Quantum Mechanics (A). Prerequisites: PHS 317 and PHS 302 or CHM 405 and CHM 406. Provides an introduction to quantum mechanics, including solutions of the Schrödinger equation and development of matrix formulations. Includes topics such as potential wells, potential barriers, hydrogen-like atoms and time-independent perturbation theory. Three hours of lecture per week. 3 Cr. Fall.

PHS 413 Thermodynamics and Statistical Mechanics (A). Prerequisites: PHS 302 and PHS 317 or CHM 405 and CHM 400. Studies the laws of thermodynamics, the statistical description of systems of particles, and application of these laws to microscopic and macroscopic systems. Three hours of lecture per week. 3 Cr.

PHS 414 Optics (A). Prerequisite: PHS 300. Covers geometrical and physical optics, including ray optics, interference, diffraction and polarization, the wave theory of light; and the interaction of light and matter. Three hours of lecture and three hours of lab per week. 4 Cr.

PHS 415 Condensed Matter Physics (A). Prerequisites: PHS 301 and PHS 317. Provides an introduction to the principles of condensed matter physics. Covers topics including crystal structure, the free electron model of solids, band theory, magnetism and super conductivity. Three hours of lecture per week. 3 Cr.

PHS 499 Independent Study in Physics (A). Arranged in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. 1-6 Cr. By Arrangement.

Astronomy Courses

AST 201 General Astronomy (A,L). Prerequisite/corequisite: MTH 110 or equivalent (may be taken concurrently). Introduces students to the solar system, stars, galaxies, and cosmology. Explores the basic physics of gravity, matter, and light. Emphasis is on what we know and how we know it. Special topics may include black holes, relativity, dark matter, and extraterrestrial life. Lab section provides for observation, both with unaided eye and telescope, and will use the College planetarium to develop some concepts. Three hours of lecture and three hours of lab per week. 4 Cr. Every Semester.

AST 211 General Astronomy (A,N). Prerequisite/corequisite: MTH 110 or equivalent (may be taken concurrently). Introduces students to the solar system, stars, galaxies, and cosmology. Explores the basic physics of gravity, matter, and light. Emphasis is on what we know and how we know it. Special topics may include black holes, relativity, dark matter, and extraterrestrial life. Three hours of lecture per week. 3 Cr. Every Semester.

AST 399 Independent Study in Astronomy (A). Arranged in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. 1-6 Cr. By Arrangement.

AST 499 Independent Study in Astronomy (A). Arranged in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. 1-6 Cr. By Arrangement.
The Department of Political Science and International Studies offers two majors. The political science major provides concentrations designed for careers in the public and private sectors—ranging from government service and practical politics to fields such as law, state and local government, international affairs and diplomacy, teaching, journalism, and intergovernmental organizations. The political science major is well-suited to many careers where knowledge of government behavior and institutions is useful. The international studies major is multidisciplinary in nature—training students for careers associated with foreign policy—international business, international organizations, and other occupations requiring individuals who are “globally skilled.” International studies is well-suited to a host of professions associated with the emergence of a globally interdependent world.

Political Science Major
Political science is the study of the state and of power relations within states and among them, as they are and as they ought to be. It seeks a better understanding of political and governmental behavior and institutions in order to enable society to use its collective resources more effectively for the general welfare. The principal sub-fields in the SUNY Brockport Department of Political Science and International Studies are political philosophy, American politics and government, comparative government and politics, and international relations.

Political science is a liberal arts discipline, therefore, the SUNY Brockport Department of Political Science and International Studies emphasizes its contributions to the general intellectual development of students. Its subject matter is essential for informed, effective citizenship and is especially pertinent for those entering the fields of law, government service, politics, journalism, and social and global studies.

The department administers several student award funds for the Brockport College Foundation, including the James A. Schiller Memorial Award, given to an incoming student who has demonstrated an interest in practical politics or public service, intends to major in political science, and plans a career in politics or public service; the Harold Rakov Memorial Award, intended for an upper-division political science major and which is awarded on the basis of academic performance; and the Paul Hanks Memorial Award, presented to a pre-law student.

Service Courses in Political Science
The Department of Political Science and International Studies offers courses to meet a variety of student educational needs and graduation requirements. These include:

I. General Education
   A. Social Sciences Knowledge Area Courses:
      PLS 111 International Relations
      PLS 112 Comparative Politics
      PLS 113 American Politics
   B. Humanities Knowledge Area Courses:
      PLS 203 Political Thought
   C. Comparative Perspective Courses:
      PLS 112 Comparative Politics
D. Contemporary Issues Courses:
PLS 314 Issues in American Politics
PLS 338 Global Issues
PLS 356 Political Economy
PLS 362 Women in Western Political Thought
PLS 435 Legal Rights of the Disadvantaged

E. Perspectives on Women Courses:
PLS 313 Gender Politics
PLS 362 Women in Western Political Thought
PLS 435 Legal Rights of the Disadvantaged

II. Corequisites for other majors: Some political science courses are corequisite requirements for academic majors offered by other departments, such as the Department of Criminal Justice.

III. Free electives: Political science courses may be used as free electives to satisfy intellectual curiosity or to complement other aspects of a student’s program.

IV. Overseas academic programs: The department participates in the SUNY Brockport social science programs in London and Paris. SUNY Brockport is home of the most comprehensive overseas education program in the SUNY system; more students study abroad through SUNY Brockport than through any other SUNY overseas program.

V. Academic internship programs: The department operates the SUNY Washington Program, the premier internship program in Washington, DC. It also participates in the Albany Semester Programs, which introduces students to New York state government. In addition, the department offers internships in campaigns, county and local governments, political parties and law offices.

Major in Political Science
The following requirements were effective fall 2002: Students who declared their major prior to fall 2002 and have taken and completed either PLS 300 Political Statistics or PLS 302 Political Analysis (or both) do not need to take PLS 303 Political Science Methods.

The political science academic major program requires a total of 36 credits, distributed as follows:

A. 15 credits in the following required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PLS 111</td>
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<td>PLS 112</td>
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<tr>
<td>PLS 113</td>
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<td>PLS 203</td>
<td>3</td>
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<tr>
<td>PLS 303</td>
<td>3</td>
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</tbody>
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Total: 15

B. Twelve credits in upper-division courses (300/400 level), including at least one course from each of the four sub-fields: American politics, political philosophy, international relations and comparative politics.


Comparative Politics Courses: PLS 305, 337, 340, 342, 343, 346, 348, 364, 367*, 383, 447, 448, 470, 475*

International Relations Courses: PLS 304, 333, 338, 339, 410, 444, 445, 475*

Political Philosophy Courses: PLS 313*, 353, 354, 362

* Course is eligible to be applied as upper-division requirement in more than one sub-field. Appropriate sub-field to be determined by course instructor.
C. Nine additional credits in PLS electives.
Every political science major must have a faculty advisor who must be consulted at least once each semester.

Minor in Political Science
The political science academic minor program requires 18 credits in political science courses, including two of the four required lower-division courses for majors, and 12 additional credits in upper-division political science courses. Every political science minor must have a faculty advisor who must be consulted at least once each semester.

Pre-law Preparation
Students preparing to enter law school may do so through any of SUNY Brockport’s many academic major programs, provided their undergraduate program is broad and liberal in the classic sense. More important than specific subject matter, according to law educators, is the development of skills and habits conducive to legal reasoning. Special advisement for students preparing for law school is available through Brockport’s Pre-law Advisement Committee. Contact the Department of Political Science and International Studies, Albert W. Brown Building, (585) 395-2584.

Combined Political Science/Master of Public Administration (MPA). The Combined Political Science/Master of Public Administration Program allows a limited number of qualified political science majors to complete their combined bachelor’s degree and master’s in public administration degree in five years. Students must have met the College’s admission criteria and been admitted to the undergraduate Political Science Program at SUNY Brockport to be eligible for the combined program. Students must have at least a cumulative 3.0 or better GPA through the end of their sophomore year and may apply to the Combined Program in the first semester of their junior year. A cumulative 3.0 or better GPA through the student’s senior year must be maintained in order to remain eligible for the Combined Program. The BS degree is awarded at the end of the senior year, and the MPA is awarded at the end of the fifth year upon successful completion of the MPA course requirements.

For more information about the MPA program, please consult the Department of Public Administration Web page at www.brockport.edu/pubadmin.

Political Science Courses

PLS 111 International Relations (A,O,S). Studies the macro international political system, traditional power politics and theories, emerging global interdependence, and the challenge represented by terrorism and globalization. 3 Cr.

PLS 112 Comparative Politics (A,D,S,W). Examines the government and politics of selected foreign countries. Both industrialized and developing countries will be studied. 3 Cr.

PLS 113 American Politics (A,D,S). Assesses and describes the organization and interaction of the components of American national government. Covers topics such as elections, Congress, the presidency, courts and the US Constitution. 3 Cr.


PLS 303 Political Science Research Methods (A). Introduces students to the research methods and techniques used in the discipline of political science. Covers elementary statistics and other approaches to political analysis including content analysis, experiments and survey research techniques. 3 Cr.

PLS 304 International Relations Simulation (A). Consists of student preparation for and participation in simulations of parts of the decision making process of various Great Powers. 3 Cr.
PLS 305 The Politics of European Integration (A). An examination of the largest transnational regional experiment in European and world history. Prepares students for participation in simulation of decision-making process of the European Union. Simulation alternates annually between SUNY campuses and a European university. 3 Cr.

PLS 309 Campaigns and Elections (A). This course explores the election campaigns in the United States, with some attention to campaigns overseas. While campaigns at all levels (federal, state and local) will be discussed, the focus will be on federal elections. Topics include campaign financing, voting behavior, campaign strategies and the use of media in elections. 3 Cr.

PLS 311 Parties and Interest Groups (A). This course examines the nature, environment, and development of political parties and interest groups. Students will explore several facets of parties such as party identification and voting; activists, organization, and party activities in government; what the parties represent; and party reform. Students will then look at the nature of organized interests, single-issue politics and social movements, and, finally, the future of parties and interest groups. 3 Cr.

PLS 312 Introduction to Public Administration (A). Covers public management, inter-governmental relations, budgeting and finance, public personnel, program evaluation, and research. 3 Cr.

PLS 313 Gender Politics (A,I,W). Cross-listed as WMS 313. Explores, from a feminist perspective, the socio-political barriers that have made women the "majority minority" or "silenced majority." Includes barriers such as discriminatory legislation, political folkways, sex gender roles, and myths that have created and perpetuated a male-dominated society. 3 Cr.

PLS 314 Issues in American Politics and Government (A). Covers a selection of contemporary issues of concern to our nation. May include topics such as lobbying and democracy, the power of the president, the death penalty and school prayer. 3 Cr.

PLS 316 Congressional Politics (A). Analyzes elections to and decision making in Congress. Emphasizes factors influencing legislative behavior and the interaction of Congress with other governmental and non-governmental units, such as the media and interest groups. 3 Cr.

PLS 317 American Presidency (A). Explores the historical roots of the modern presidency. Emphasizes interaction of the presidency with other governmental and non-governmental units such as Congress, the media, the bureaucracy and public opinion. Explores the evolution of the modern presidential campaign. 3 Cr.

PLS 318 State and Local Government (A). This course introduces students to the study of state and local government and politics by examining the social, economic, and cultural context in which the politics occur. Topics include the study of federalism, the role of the media and the effects of public opinion on state and local politics. 3 Cr.

PLS 319 Urban Politics (A). Covers the politics and governments of America's cities. 3 Cr.

PLS 320 Introduction to Law and Legal Process (A). Covers the judicial process, including its structure and organization, and the political dimensions of judicial decision making. 3 Cr.

PLS 324 Constitutional Law I (A). Covers the practices, customs and traditions of the Supreme Court. Focuses on the founding of the Constitution and the early cases decided by the Court. Includes topics such as judicial review, federalism, presidential and congressional power, the Commerce Clause, and nationalization of the Bill of Rights. 3 Cr.

PLS 326 Constitutional Law II (A). Surveys 20th Century Supreme Court civil rights and civil liberties cases. Includes topics such as freedom of speech, press, religion, due process rights, equal protection, voting rights and rights of women and minorities. 3 Cr.

PLS 333 American Foreign Policy (A). Prerequisite: PLS 113 or PLS 111. Covers post-World War II American policy formation and execution. Explores the role of the presidency, Congress, the military, the intelligence branches, and public opinion in shaping policy. Examines the changing foreign policy environment as containment gives way to more pro-active doctrines. 3 Cr.

PLS 337 Politics of Nonviolent Struggle (A). Nonviolent resistance ended imperial rule in India, challenged Nazi occupation in Europe, established a civil rights regime in the United States, and dismantled dictatorships from Chile to Czechoslovakia and South Africa to Serbia. This course will draw on a range of political theory and case studies to examine issues related to the legitimacy of using nonviolent means instead of force to achieve political and social objectives. 3 Cr.

PLS 338 Global Issues (A,I,W). Covers a selection of issues such as military weapons growth, problems of world order, gender issues, terrorism, globalization, international politics of energy, food, population growth and natural resources. 3 Cr.
PLS 339 The Morality of War (A). Prerequisites: PLS 111 or PLS 112. Examines the use of force from both historical and contemporary perspectives. 3 Cr.

PLS 340 European Political Systems (A). Provides an intensive, in-depth study of the politics and governments of selected western European countries, especially Great Britain, France and Germany. 3 Cr.

PLS 342 Latin American Politics (A). Covers the major forces in Latin-American domestic and international politics and US-Latin-American relations. 3 Cr.

PLS 343 Canadian Politics and Society (A). Explores Canada’s geography, history, demography and culture; federal and provincial institutions, e.g., the Prime Minister, House of Commons, parties; and governmental policy on language and international affairs. 3 Cr.

PLS 346 Russian and Eastern European Politics (A,C). Explores the political institutions of the former Soviet Union and its neighbors, with an emphasis on challenges to democratic transition. 3 Cr.

PLS 348 Asian Politics (A). Prerequisite: PLS 112. Examines some of the important theoretical and historical questions and events challenging those who study Asian politics as the world enters a new millennium. China and Japan will be the two primary nations under examination although examples will be taken from all over Asia and the world. 3 Cr.

PLS 353 American Political Thought (A). Explores the founding roots of Federalism and Anti-Federalism via early puritan writings, the founding documents, Federalist and Anti-Federalist papers and the personal writings of several Founding Fathers. 3 Cr.

PLS 354 Politics and Literature (A). This course examines political themes through various means and literary genres. Ten works of history and fiction will be read, spanning from the ancient Greek world to the 21st century. 3 Cr.

PLS 357 Origins of Current Issues (A,I). Examines the philosophical origins underlying today’s political ideologies and issues. The ideologies and issues examined will vary from semester to semester. 3 Cr.

PLS 359 Political Behavior (A). Prerequisite: PLS 113. The study of political behavior focuses on the actions of-as opposed to the institutional constraints on-individuals, small groups, and large organizations as they interact with the political world through activities such as voting, joining parties and interest groups, protesting government actions, and consuming mass media. The course evaluates behavior from a variety of perspectives such as the psychological, economic, sociological, and political. 3 Cr.

PLS 360 Comparative Public Opinion (A). This course examines public opinion in democratic societies. Students will first explore fundamental concepts such as attitudes in the mass media and political elites, the impact of public opinion on political representation and policy making, and an introduction to opinion formation and survey methodology. Then students will investigate public opinion across a number of countries and regions such as Europe, Latin America, and Asia. 3 Cr.

PLS 361 Public Opinion (A). How do we develop our political ideas? How do these ideas relate to our personalities? In what ways does public opinion shape the decision-making process of our government? Allows students to acquire and apply research skills to find answers to these questions. 3 Cr.

PLS 362 Women in Western Political Thought (A,D,I,W). Cross-listed as WMS 362. Covers major theories of sexual politics, which include Freud’s theory of femininity, reform liberalism, socialist theory, and the theory of radical feminism. 3 Cr.

PLS 367 Press and Politics (A,I). A survey and analysis of the involvement of the press in the political process. The interaction of the press with political and governmental institutions will be examined and consideration given to the political orientation of the press, restraints upon its performance, and the role of the press in shaping domestic and foreign policy decisions. The result of this examination will be evaluated in the context of selected foreign press systems. 3 Cr.

PLS 383 Mid-East in World Politics (A). Studies political conflict of global issues and international politics. Covers the Arab-Israeli conflict. 3 Cr.

PLS 392 Topics in Political Science (A). Covers selected topics focusing on contemporary political issues and problems. May be repeated as topics change. 3 Cr.

PLS 395 Perspectives on American Democracy (A). In this course, students will learn about various disciplinary perspectives on American democracy from members of the SUNY Brockport faculty. Students will actively use this knowledge to interpret and critique current issues and events throughout the semester. Students will also select at least
one disciplinary perspective for a research project that will be designed to bridge the gap between academia and the world outside its walls. 3 Cr.

PLS 399 Independent Study (A). Defined in consultation with the instructor-sponsor and the procedures of the Office of Academic Advisement prior to registration. 1-3 Cr. Every Semester.

PLS 401 Local Government Internship (A). Enables students to serve as interns in town, city or county government, engaging in such activities as research, constituent service, and planning. Provides placements in administrative agencies, as well as local legislative bodies. 1-6 Cr. Every Semester.

PLS 402 Legal Internship (A). Provides an experiential learning opportunity. Places student interns in either a public or private law office, undertaking paraprofessional responsibilities. 3-6 Cr. Summer.

PLS 403 Introduction to Legal Studies (A). Introduction to Legal Studies is designed to help prepare students for law school. Students will receive a general understanding of the legal system and be introduced to basic legal principles in substantive areas like civil procedure, due process, contracts, torts, legal remedies, etc. 3 Cr.

PLS 410 International Political Economy (A). Prerequisite: PLS 111. Explores the political forces behind global economic relations. Includes key topics such as international trade and monetary relations, the impact of the international system on domestic politics, and the relationship between rich and poor countries. Also includes these specific issues: the importance of the World Trade Organization, regional trade blocs, and the political influence of multi-national corporations. 3 Cr.

PLS 412 Public Policy: Values, Means, Methods (A). The course is designed to be an introduction to public policy studies in general and to provide the student with an understanding of the values, means and methods used in formulating, analyzing and implementing public policy. 3 Cr.

PLS 420 Civil Liberties, Civil Rights and the Constitution (A). Examines public policy and constitutional rights, focusing on controversial constitutional issues such as affirmative action, capital punishment, adoption, and free press/fair trial. Utilizes a seminar format to discuss issues. 3 Cr.

PLS 425 Law and Social Problems (A,D,I). The purpose of this course is to understand and critically evaluate various current legal issues. The focus will be on learning to succinctly think about and opine on issues from legal, social, political, economic, moral, religious and national vs. international perspectives. 3 Cr.

PLS 435 Legal Rights of the Disadvantaged (A,D,I,W). Cross-listed as AAS 435, WMS 435. An issue-oriented course. Provides an understanding of how the US legal system can improve the status of disadvantaged blacks, Hispanics, women, prisoners, the poor, students, Native Americans, homosexuals, and those with mental and physical disabilities. 3 Cr.

PLS 440 Politics and Diversity (A,D,I). Define and examine concepts of multi-culturalism and examine different national approaches to the issue. Impart awareness of diversity’s meaning and implication and an appreciation of the connections between politics and diversity. 3 Cr.

PLS 444 National Security (A). Prerequisite: PLS 111. Examines post-WWII and post-Cold War changes in national security (military defense) policy perception, planning and implementation as a result of technological advances. In particular, focuses on military defense policies, including strategies and tactics of the Great Powers, and other powers of military consequence. Considers the challenger of asymmetrical conflict. 3 Cr.

PLS 445 International Law and Organization (A). Introduction to modern public international law and to major international organizations such as the United Nations and associated bodies as well as major regional organizations. 3 Cr.

PLS 447 Russia in Transition (A). The course will focus on current issues relevant to the transition of the former Soviet Union to a democratic form of government and a market economy. 3 Cr.

PLS 470 Nationalism (A). Cross-listed as INS 470. Examines the post-WWII force of nationalism as a driving force in the international system, with special attention to the post-Cold War period. Includes topics such as ethnic nationalism and regional conflicts, multinational states, and multi-state nations. 3 Cr.

PLS 475 Political Geography (A,C). Cross-listed as INS 475. Covers key aspects of geopolitics as it affects foreign policy and international politics in the post-WWII period. Examines topics such as resources, environment and human geography, as well as issues associated with the study of geography-politics relationships, gateway states, shatterbelts, heartland concept, and trade ties. 3 Cr.

PLS 490 Moot Court Seminar (A). Students analyze and discuss the issues and problems of a specific case. They prepare a written brief and present an oral argument related to the case. 3 Cr.
PLS 491 Advanced Moot Court Competition (A). Intense critical review of facts as applicable case law, statistics and materials are utilized by the students to write a “Supreme Court” brief. Students are responsible for reading a significant amount of legal materials whereupon they shall then argue a position by writing the brief. Students shall also argue their position in an interstate competition against other students. This shall occur before a “panel of judges.” 3 Cr.

PLS 492 Albany Internship (A). Enables selected students to serve as interns at the New York Assembly or Senate, or a state agency in Albany. Provides an experiential learning opportunity. 1-12 Cr. Every Semester.

PLS 493 Albany Internship Seminar (A). Enables selected students to serve as interns at the New York State Assembly or Senate, or a state agency in Albany. Conducted on site in Albany. 1-6 Cr. Every Semester.

PLS 495 496 Internship in National Politics I and II (Washington Program) (A). Enables selected students to serve as interns in an executive branch, Congressional office/committee, judicial office, political party organization, or a politicized private organization in Washington. Requires a major research project. 6 Cr.


PLS 499 Independent Study (A). Defined in consultation with the instructor-sponsor and the procedures of the Office of Academic Advisement prior to registration. 1-6 Cr. Every Semester.

International Studies Major

International studies is an interdisciplinary major that provides students with a broadly based course of study, focusing on the driving forces in world affairs today. As a sole major, international studies is an excellent preparation for careers in government, international business and public service. As a second major, it complements study in many fields because it centers on the international domain within which a wide range of careers operates.

At SUNY Brockport, we firmly believe that an international studies degree is an education in the future of our nation and the world because an international studies student will be versed not only in the subject areas studied, but will also be trained analytically in problem identification and problem solving where international matters are concerned. Toward this end, international studies students will speak and write at least one foreign language, will have experienced one of SUNY Brockport’s many outstanding study-abroad opportunities, and will be computer literate. Given the rise in global interdependence in communications, transportation, trade, financial transactions, and a host of other activities, a degree in international studies is a passport to the emerging challenges of the 21st Century.

SUNY Brockport also offers interdisciplinary programs in international business, Asian studies and Latin American studies, as well as programs overseas that can be integrated into the international studies major. (See the department chair for further information.)

The Curriculum

The international studies major requires 15 credits of foundation course work, six intermediate level credits, and 15 credits of upper-division course work in one of six thematic or functional tracks and a foreign language requirement.
**Foundation Courses**—Select five courses for a total of 15 credits
* (Delta College Equivalents)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>PLS 111</td>
<td>International Relations (Required)</td>
</tr>
<tr>
<td>PLS 112</td>
<td>Comparative Politics (Required)</td>
</tr>
<tr>
<td>AAS 104</td>
<td>Institutional Racism</td>
</tr>
<tr>
<td>ANT 100</td>
<td>Introduction to Cultural Anthropology (*DCC 215 or 315)</td>
</tr>
<tr>
<td>ARH 202</td>
<td>Survey of World Art II: Renaissance to Modern (*DCC 210 or 310)</td>
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<tr>
<td>BUS 345</td>
<td>International Business Environment</td>
</tr>
<tr>
<td>ECN 202</td>
<td>Principles of Economics-Macro</td>
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<tr>
<td>ENL 164</td>
<td>Literature, Arts and Culture II (*DCC 210 or 310)</td>
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<tr>
<td>ENL 165</td>
<td>International Fiction</td>
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<tr>
<td>ESC 102</td>
<td>Elements of Geography</td>
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<tr>
<td>HST 102</td>
<td>The World and the West: The Modern Era (*DCC 215 or 315)</td>
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<tr>
<td>PLS 333</td>
<td>American Foreign Policy</td>
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</tbody>
</table>

Note: The following Delta College courses have been determined to fulfill INS Core requirements:

- ANT 100 = DCC 215 or DCC 315
- ARH 202 = DCC 210 or DCC 310
- CMC 418 = DCC 220 or DCC 320
- ENL 164 or ENL 165 = DCC 210 or DCC 310
- HST 102 = DCC 215 or DCC 315

**Intermediate Level Courses**—Select two of five courses for a total of six credits.

- ANT 330  World Poverty and Economic Underdevelopment
- MC 418  Cross Cultural Communication
- CRJ 451  International Criminal Justice
- PLS 338  Global Issues
- SOC 306  Social Change in the Third World

**Upper Division Courses**—Select five courses for a total of 15 credits
Electives may not duplicate foundation or intermediate-level courses.

**I. Thematic Tracks**

A. Developing Societies

- AAS/DNS 330  African Dance II
- AAS 360  Africa Today
- AAS/ENL 367  African Novel
- AAS/HST 460  Modern Africa
- ANT 317  Culture and AIDS
- ANT 330* World Poverty and Economic Underdevelopment
- ANT 332  China in Transition
- ANT 405  Applied Anthropology
- DNS 200  Traditional Dance Styles
- ESC 432  Tropical Meteorology
- ENL 366  Arabic Culture and the West
- PLS 364  Comparative Political
- ENL 367  African Novel Development
- ENL 474  Caribbean Literature
- ENL 475  Post-Colonial Literature
- FCE/WMS 375  Latin American Women
- HST 361  History of Japan
- HST 363  Islam
- HST 376  Modern Latin America
- HST 388  Traditional China
332 Political Science and International Studies

HST 434  Modern Caribbean
HST 438  Women and Gender in Latin American History
HST 467  Modern South Asia
HST 487  Asian Survey
PLS 342  Latin American Politics
PLS 348  Politics of the Far East
PLS 410  International Political Economy
PLS 475  Political Geography
SOC 306*  Social Changes in the Third World

B. Former and Current Communist Societies
ANT 317  Culture and AIDS
ANT 332  China in Transition
ANT 405  History of the Soviet Union
HST 389  Modern China
HST 463  Revolution and Communism in China
HST 487  Asian Survey
PLS 305  Politics of European Integration
PLS 346  Russian and East European Politics
PLS 348  Politics of the Far East
PLS 364  Comparative Political Development
PLS 447  Russia in Transition
PLS 304  International Relations Simulation

C. Advanced Industrial Societies
ANT 317  Culture and AIDS
ANT 405  Applied Anthropology
ENL 355  European Mythologies
HST 300  Modern Europe
HST 337  Early Modern Europe
HST 347  Europe’s Long 19th Century
HST 351  Nazi Germany
HST 359  European Women
HST 361  History of Japan
HST 364  History of Britain
HST 449  20th Century Europe
PLS 304  International Relations Simulation
PLS 305  Politics of European Integration
PLS 339  The Morality of War
PLS 340  European Political Systems
PLS 343  Canadian Politics and Society
PLS 410  International Political Economy

D. Multi-regional Track
Concentration of three courses in one of the above areas
Two courses from two other areas

II. Functional Tracks–36 Credits
A. International Environmental Issues
ANT 310  World Health Crisis
ANT 315  The Migration Experience
ANT 321  Culture Change
ANT 330  World Poverty and Underdevelopment
BUS 345  International Business Environment
CHM 372  Environmental Issues
CRJ 440  Environmental Law
ESC 364  Water Resources Issues
B. International Business Track

Students must have taken ECN 202 from among the core INS courses to qualify for this track. Students should be aware of business/economics departmental prerequisites, which are strictly enforced. Students must choose five classes from among the following:

- BUS 335 Principles of Marketing
- BUS 345* International Business Environment
- BUS 433 International Marketing
- BUS 445 International Financial Management
- ECN 443 International Economics
- ECN 453 International Business Seminar
- PLS 410 International Political Economy

*Indicates a foundation or intermediate-level course that is also available as an upper-level course option. Students cannot use these courses to fulfill both requirements.

Foreign Language Requirement

Student must demonstrate competence in an appropriate foreign language with the completion of one year of intermediate-level study or an appropriate score on a qualifying exam. Advanced-level study is strongly recommended.

Delta College Global Studies Track

The international studies major may be elected by Delta College students pursuing Option II. (See Delta College entry for details).

Study Abroad

International studies majors are expected to take advantage of one of SUNY Brockport’s many opportunities to study abroad. Overseas programs may take the form of traditional studies or an internship program. Study abroad is possible through Brockport in England, France, Canada, Ghana, Jamaica, Japan, Greece, New Zealand, Jordan, Mexico, the Czech Republic and Russia. Internships are available with many organizations and businesses, including the British Parliament and Amnesty International’s home office in England, as well as many more in Scotland, Mexico and Costa Rica. Most study-abroad programs and internships count toward completion of the major.

Closer to home, students may also take part in the Washington Program Internship/Study Program. Work opportunities include the State Department, Amnesty International, Greenpeace, the World Bank, congressional committees on international affairs, and the World Health Organization.

Contact Pat Coates, Office of International Education, Morgan III, (585) 395-2119, for more information on study abroad and international internships.

International Organization Simulations

SUNY Brockport takes part in model European Union simulations. This acquaints students with the operations of international politics and the workings of influential organizations.

International Studies Minor

Students choosing to minor in international studies must complete 18 credits of course work, including a minimum of six credits at the upper-division level. PLS 111 International Relations and PLS 112 Comparative Politics are required. A minimum of two additional courses must be selected from the following list:

- ANT 100 Introduction to Cultural Anthropology
- ENL 164 Introduction to World Literature
- ENL 165 International Fiction
- COM 418 Cross-cultural Communication
International Studies Courses

**INS 470 Nationalism.** Cross-listed as PLS 470. Examines the post-World War II force of nationalism as a driving force in the international system, with special attention to the post Cold War period. Includes topics such as ethnic nationalism and regional conflicts, multinational states and multistate nations. 3 Cr.

**INS 475 Political Geography (A,C).** Covers key aspects of geopolitics as it affects foreign policy and international politics in the post-World War II period. Examines topics such as resources, environment and human geography, as well as issues associated with the study of geography-politics relationships: gate-way states; shatterbelts; heartland concept; and trade ties. 3 Cr.

Professions

**International Courses**

The School of Professions sponsors several courses whose interdisciplinary content is applicable to students in many majors, both in the School of Professions and beyond. For information, contact the course professors or Dean of the School of Professions, 264 Albert W. Brown Building, (585) 395-2510.

**PROFESSIONS**

**PRO 204 Developmental Assessment (A).** Cross-listed as NUR 304. Investigates the physiological, psychological, sociocultural, spiritual and developmental influences on the client. Emphasizes the use of multi-disciplinary tools in assessing clients along the age continuum. Examines environmental forces that influence developmental outcomes. Investigates variables which will promote the optimal stability for each of eight stages of life. Examines normal lines of defense for each stage to retain the greatest internal resistance. 3 Cr. Fall.

**PRO 310 Research: Process and Critique (A).** Introduces and examines the research process as it is evidenced in published professional journals. Includes the scientific method as utilized in research: problem formulation, literature review, research design and methodology, data analysis, and interpretation of findings. Presents and applies criteria for critically evaluating research to current published research. Emphasizes active learning throughout. 3 Cr. Fall.
PRO 370 Health and Drug Education for Teacher Candidates (B). Fosters childhood, adolescence, and physical education teacher candidates awareness of personal health, safety, nutrition and other factors that affect students readiness to learn. Enhances skills used to create a learning environment free of alcohol, tobacco and other drugs, and which foster the health and learning of all students. Provides Schools Against Violence Education (SAVE)) Legislation Certification and Child Abuse Detection Training. Every semester. 1 Cr. Every Semester.

PRO 401 Professional Preparation in REL (A). Prerequisite: Senior status. Focuses on developing the professional competencies of recreation and leisure students consistent with industry expectations. Examines professional career preparation including skills assessment, portfolio building and resume writing, internship application processes, interview techniques, college-to-career transition, professional ethics and selected contemporary career building seminar topics. Requires students to host outside speakers, conform to prescribed dress code and participate in professional organizations. 1 Cr. Every Semester.

PRO 407 Transcultural Issues in Health Care (A,D,I,W). Examines the issues and implications of health and culture; explores and evaluates social policy issues. Examines the issues and implications of health and culture; explores and evaluates social policy issues important to addressing the health needs of specific ethnocultural groups and women; examines a variety of historical and theoretical issues related to health and culture; discusses comparative health issues in developed and developing countries; and compares and contrasts health beliefs, values and practices of a diverse population. Includes a major service learning component, which provides students with firsthand exposure to a cultural group different from their own. 3 Cr.

PRO 410 Grants Writing Seminar (B). A basic, practical, how-to course for the beginning grants writer. Includes types of funding sources, how to identify funding sources, and how to write foundation and government proposals. Requires writing a brief sample proposal. Appropriate for all majors. 1 Cr. Spring.

PRO 421 Field Experience I (ARP) (B). Provides an introductory practicum experience for students who may work with adults with special needs in a recreational setting; e.g., adults with mental retardation, visual impairments, hearing impairments, or physical disabilities. Takes place on campus on Thursday evenings only. 1.5 Cr. Every Semester.

PRO 422 Field Experience II (ARP) (B). Provides an introductory practicum experience for students who may work with adults with special needs in a recreational setting; e.g., adults with mental retardation, visual impairments, hearing impairments, or physical disabilities. Takes place on campus on Thursday evenings only. 1.5 Cr. Every Semester.

PRO 423 Field Experience III (ARP) (B). Provides an introductory practicum experience for students who may work with adults with special needs in a recreational setting; e.g., adults with mental retardation, visual impairments, hearing impairments, or physical disabilities. Takes place on campus on Thursday evenings only. 1.5 Cr. Every Semester.

PRO 424 Field Experience IV (ARP) (B). Provides an introductory practicum experience for students who may work with adults with special needs in a recreational setting, e.g., adults with mental retardation, visual impairments, hearing impairments, or physical disabilities. Takes place on campus on Thursday evenings only. 1.5 Cr. Every Semester.

PRO 425 Field Experience V (ARP) (B). Provides an introductory practicum experience for students who may work with adults with special needs in a recreational setting, e.g., adults with mental retardation, visual impairments, hearing impairments, or physical disabilities. Takes place on campus on Thursday evenings only. 1.5 Cr. Every Semester.

PRO 426 Field Experience VI (ARP) (B). Provides an introductory practicum experience for students who may work with adults with special needs in a recreational setting, e.g., adults with mental retardation, visual impairment, hearing impairments, or physical disabilities. Takes place on campus on Thursday evenings only. 1.5 Cr. Every Semester.