2009

Exercise Science (EXSC)

Montclair State University

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### EVAL530
**Title**  
Applied Field Experience in Program Evaluation.

**Prerequisites**  
EVAL 501 and EVAL 505 and EVAL 520.

**Number and type of credits**  
3 hours lecture.

**Course Description**  
In this course students apply the principles and methods of program evaluation through a variety of applied activities that relate to pertinent topical areas in the educational, human services and public health fields. Through group and individual activities, students practice and refine skills in: identifying program goals and objectives; creating measurements for these goals, designing appropriate data collection instruments; analyzing and interpreting data; and using data to modify and improve programs. Students explore issues of program implementation and fidelity, working within local contexts and cultures, evaluation ethics, and managing competing expectations.

### EXSC151
**Title**  
Yoga, Relaxation and Stress Reduction.

**Number and type of credits**  
1.5 hours lab.

**Course Description**  
Provides for the development of basic skills in the performance and teaching of hatha yoga and basic neuromuscular relaxation. Each student will be able to plan and implement stress reduction programs for individuals in a one-to-one counseling situation and teach sessions in a classroom format. Previous course PEMJ 151 effective through Winter 2012.

### EXSC231
**Title**  
Fitness Assessment and Exercise Prescription.

**Prerequisites**  
PEMJ 131 and Exercise Science (ESCI) majors only and departmental approval.
Special Fee
Number and type of credits
Course Description
Special fee.
3 hours lecture, 1.5 hours lab.
This course provides the student with the knowledge and basic skills necessary to effectively perform a variety of fitness evaluations prior to the development of individualized exercise recommendations tailored to the needs and goals of each client. Students will be exposed to all aspects of equipment and instrumentation commonly used in the fitness industry to determine cardiovascular and neuromuscular fitness. In addition, assessment protocols for estimating body composition and flexibility will also be reviewed. Meets the University Writing Requirement for majors in Exercise Science. Previous course PEMJ 231 effective through Winter 2012.

EXSC233  Title
Leadership in Aerobic Exercise.
Prerequisites
PEMJ 131; and Exercise Science (ESCI), Physical Education w/ conc: Adult Fitness (PEAF) majors only and departmental approval.
Number and type of credits
2 hours lecture, 2 hours lab.
Course Description
Students will acquire skills in performing, demonstrating, and teaching aerobic activities. Previous course PEMJ 233 effective through Winter 2012.

EXSC234  Title
Leadership in Anaerobic Exercise.
Prerequisites
PEMJ 131 and Exercise Science (ESCI) majors only and departmental approval.
Number and type of credits
2 hours lecture, 1 hour lab.
Course Description
Students will acquire skills in performing, demonstrating, and teaching strength training and anaerobic conditioning. Previous course PEMJ 234 effective through Winter 2012.

EXSC300  Title
Seminar I in Exercise Science.
Prerequisites
EXC 231 and EXSC 233 and EXSC 234 and Exercise Science (ESCI) majors only and departmental approval.
Number and type of credits
2 hours lecture.
Course Description
This course provides the student with the knowledge and basic skills necessary to evaluate potential career choices in the exercise science and fitness industries. Students will visit and observe a variety of fitness related work sites and then apply this knowledge as they engage in real and practical leadership experiences while under the supervision of a fitness professional.

EXSC420  Title
Theories in Strength and Conditioning.
Prerequisites
PEMJ 320 and PEMJ 321; and Exercise Science (ESCI) majors only and
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<td>EXSC420</td>
<td>An advanced course about the scientific</td>
<td>3 hours lecture.</td>
<td>Special fee</td>
<td>3 hours lecture.</td>
<td>An advanced course about the scientific principles, concepts, and theories of strength training and conditioning and their application to athletic performance. Students examine the effects of both acute and chronic anaerobic training on several physiological systems. Students also investigate the bioenergetics, biomechanics, and administrative concerns of anaerobic training. Additionally, students analyze the effects of age, sex, performance-enhancing substances, nutrition, and psychology on athletic performance.</td>
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<td>EXSC430</td>
<td>Exercise for Special Populations.</td>
<td>PEMJ 320 and Exercise Science (ESCI) majors only and departmental approval.</td>
<td>Special fee</td>
<td>3 hours lecture.</td>
<td>This course provides the student with the knowledge to apply principles of personalized fitness to individuals in special populations. Students examine responses to exercise and special considerations for individuals of varying age (children, older adults) and clinical conditions other than heart disease (arthritis, diabetes, dyslipidemia, hypertension, metabolic syndrome, obesity, osteoporosis, pregnancy, pulmonary disease). Emphasis is placed on preparing students to develop safe and effective exercise programs for individuals with special needs.</td>
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<td>EXSC475</td>
<td>Foundations and Practices in Cardiac</td>
<td>PEMJ 320 and Exercise Science (ESCI) majors only and departmental approval.</td>
<td>Special fee</td>
<td>3 hours lecture.</td>
<td>This course provides the student with the knowledge and basic skills necessary for patient care in a cardiac rehabilitation setting. Students examine the underlying pathology of coronary disease and learn to apply concepts of exercise testing and exercise prescription to patients in this population. Substantial time is allotted to developing student competences in electrocardiographic interpretation necessary for patient monitoring during exercise. Previous course PEMJ 375 effective through Winter 2012.</td>
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<td>EXSC476</td>
<td>Seminar II in Exercise Science.</td>
<td>EXSC 300 and EXSC 420 and EXSC 430 and EXSC 475 and Exercise Science (ESCI) majors only and departmental approval.</td>
<td>3 hours lecture.</td>
<td>This course is specifically designed to allow the Exercise Science major to synthesize information from a series of background topics. Presented in a seminar format, this course will include discussions regarding: the role of the exercise practitioner, critical health issues as they relate to exercise, evaluation of criteria for individual and group exercise programs in a variety of settings, individual factors which influence participation and adherence to exercise programming and professional preparation for employment in health and fitness industry.</td>
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<td>EXSC480</td>
<td>Internship in Exercise Science.</td>
<td>EXSC 300 and EXSC 476; Exercise Science (ESCI) majors only and departmental approval.</td>
<td>8 hours internship.</td>
<td>The internship offers the student an opportunity to work as a trainee with professionals in organizations and/or agencies. Previous course PEMJ 380 effective through Winter 2012.</td>
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<td>FCST100</td>
<td>Professional Orientation.</td>
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<td>2 hours lecture.</td>
<td>Orientation to the philosophy of the profession. Field experiences in a variety of settings to provide exposure to the breadth of professional opportunities.</td>
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<td>FCST120</td>
<td>Mindfulness: Theory, Research and Practice across the Life Course.</td>
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<td>3 hours lecture.</td>
<td>In this course, students study the practice of mindfulness for stress reduction. They practice and use mindfulness practice to reduce emotional distress and promote positive states of mind in their individual and family life, and work settings. Students examine current work in the fields of neuroscience, family and child studies, health, medicine, psychology, and</td>
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