

MONTGOMERY COLLEGE

Department of Health Enhancement, Exercise Science and Physical Education
Rockville Campus

SYLLABUS**PHED 230: Advanced Weight Training: Theory & Design (3 credits)****I. Instructor Information**

Instructor:
Office:
Phone:
Email:
Office Hrs:

II. General Course Information

PHED 230
Dates and Time
Room:

Catalog Description:

Emphasis is on instructional techniques and skill development in progressive resistance strength training. Anatomical, physiological and biomechanical principles are studied and applied to design effective programs for individuals and specific populations. Equipment considerations, maintenance, safety, organization, and injury prevention are covered in the use of free weights, resistance machines, and plyometric training methods. Students develop the skills to assess, develop and evaluate muscular strength and endurance programs. Course assignments include in-class practice teaching experiences. **Assessment levels: A grade of C or better in PHED 206. Three hours each week.**

III. Common Course Student Learning Outcomes

- ◆ The student will identify the major benefits of weight training as it relates to lifetime fitness and sports performance.
- ◆ The student will demonstrate an understanding of muscle and skeletal anatomy including fiber types and muscle structures. Apply these basic principles of the biomechanics and applied physiology of human movement in order to select appropriate exercise which promote safety, enhance sport performance and ensure effectiveness of weight training programs.
- ◆ The student will recognize acute and chronic physiological responses and adaptations to training and their implications to the design of fitness and sport specific training programs.
- ◆ The student will effectively demonstrate proper weight training and spotting techniques with free weight and resistance machines for the major muscle groups.

- ♦ The student will design and manipulate acute and chronic weight training variables to meet the needs of the athletes involved in various sports, individuals interested in personal fitness and persons with special needs and health concerns, physical disabilities and other limitations.
- ♦ The student will identify various training systems evaluate the potential advantages and disadvantages of such systems based on research data and in-class practical experiences.

IV. Textbooks and Supplies

Required Text:

Ratamess, N. (2012). ACSM's Foundations of Strength Training and Conditioning. Baltimore: Lippincott, Williams & Wilkins

Delavier, Frederic (2006). Strength Training Anatomy (2nd ed.). Champaign: Human Kinetics.

Link to MC Bookstores:

<http://cms.montgomerycollege.edu/edu/departments2.aspx?id=6511>

Other Required Materials:

Montgomery College Student Handbook -

<http://cms.montgomerycollege.edu/edu/secondary5.aspx?urlid=55>

Access to the PHED 230 Course website -

1. Login to <http://www.montgomerycollege.edu>
2. Click on the  button at the top of the page.
3. Log into My MC with your user name and password.
4. In the upper right hand corner, click on the "Blackboard" tab
5. This will automatically log you into Blackboard. Look for the PHED 230 class and click on this tab.

Various course materials, syllabus, assignments, and labs are posted here.

Students are responsible for checking and participating in the site on a weekly basis.

V. Course Requirements

General

In order for students to be successful in this course they will need to prepare for each class by completing the assigned readings, completing all assignments (including labs, homework assignments, projects, etc.) by the appropriate due dates and coming to classes prepared to participate in all activities.

Course Grade

Class Assignments 10 each)	60 points (6@
Class Project	100 points
Homework Videos 10 pts each)	30 points (3@
Labs points	60
Tests points (2@100 pts each)	200
Final Exam	50 points
TOTAL POINTS	500 points

Standards

Final grades will be determined by total points accumulated through the semester. The final points necessary for a given letter grade will be based upon the following percentage scale:

points	90% of total possible points = A	450-500
points	80% of total possible points = B	400-449
points	70% of total possible points = C	350-399
points	60% of total possible points = D	300-349
	Less than 60% of total possible points = F	0 – 299 points

Class Assignments (60 points):

- Class assignments will vary throughout the semester. Some will focus on in-class workouts and others will involve students participating in college activities.
- Students are expected to come prepared and participate on all class workout days (see course schedule). This includes proper dress (see participation).
- For in-class assignments, students will participate in the scheduled workout, complete and submit the outside assignment by the due date (see course schedule).
- Students who are not present to complete the in-class workout will not be able to submit the class workout assignment.
- For college activities, students will be required to attend the event and submit a summary for each. Instructions will be discussed in class.

- *All Class Assignments will be submitted in person by the due date.*

Class Project (100 points) – More information TBA

- Students will develop a comprehensive weight training program for an assigned individual. Further details will be given in class. See the course schedule for due dates.
- For those students currently enrolled in PHED 237, this project will be linked to your PHED 237 class project. Details will be discussed in class.
- Students must submit all three parts of the paper by the appropriate due dates. If you do not submit Part I of the project by the due date, you will not be able to submit Parts II, III & IV. If you submit Part I but do not submit Part II of the project by the due date you will not be able to submit Part III, etc.
- ***Parts I & II will be submitted via Blackboard AND Part III will be submitted in person by the due date.***

Homework Videos (30 points):

- Students will be required to watch and complete homework assignments for three assigned videos. A link to the videos can be found on the course website (Blackboard) under the "Homework Videos" module.
- Each video will be accompanied by a homework assignment. Students are responsible for completing and submitting each assignment, in class on their assigned due date (see course schedule).
- ***All work will be submitted through Blackboard. No assignments will be accepted in class.***

Labs (60 points):

- Throughout the semester each student will complete **three assigned** (3 labs @ 20 points each) Labs are designed to measure your current fitness level and assess your knowledge of strength training. Portions of each lab will be completed during class and each lab will contain critical thinking questions that will be completed outside of the class meeting time. See course outline for lab due dates. Students who are absent on assigned lab dates will not be able to make up the work outside of class time.
- All labs are due by their assigned due dates. **No labs will be accepted late** (Please see late policy for more information). ***All work will be submitted through Blackboard. No assignments will be accepted in class.***
- Students are expected to come prepared to participate in all labs. This includes proper dress (see participation), completion of assigned readings and familiarization with lab protocols as assigned by the professor. Students who are not completely prepared to participate in the lab will be asked to leave and will receive a zero for the lab.

Tests (200 points)

There will be two non-cumulative exams (100 points each). The exams will consist of multiple choice, true/false, short answer, and essay questions. Exams will cover all of the material that is presented in class and assigned from the text. **No makeup exams will be given.** In case of an emergency, you must contact the professor within 24 hours of the exam and may be asked to provide proof of the emergency in order to take the exam. These exams will be given in-person and/or online through Blackboard.

Final Exam (50 points)

Students will participate in a practical exam based on the information submitted with the class project. More information regarding the procedures for the final will be discussed in class.

Late Policy

Work will NOT be accepted after the day it is due. Deadlines and due dates are not negotiable. This applies to in-class activities, labs, and long-term assignments. *Assignments will be considered LATE if they are not in the instructor's hands by the time the class period ends (2:15 pm) on the day they are due.* **Therefore, if you are ill or have a conflict with class, you should e-mail your assignment or drop it off BEFORE class begins. If you are working on an assignment in class that was already due, you will not receive credit for the assignment, and may be asked to leave the class.**

If a student forgets an assignment, leaves it in the car, has a printer problem, or any other excuse, he or she MAY turn in the assignment (by fax, e-mail, or in-person) up until MIDNIGHT on the due date. However, 5% of the grade will be AUTOMATICALLY deducted for each hour it is late. For example, if you turn in your assignment at 5:15 pm, you will lose 15% of the total grade in addition to any points deducted through the grading process. Any work turned in after midnight on the due date will automatically receive a zero.

Therefore, stay aware of the syllabus and class announcements for due dates, and do not be late to class.

Suggestion: When sending an email to your professor, save a copy of the email to your "sent" mailbox.

VI. Participation and Communication

Attendance

Students are expected to attend class and to be on time. Graded assignments might be completed at the beginning of each class. Thus, excessive absences or lateness will affect final grades. If a student has excessive absences, as defined in the Student Handbook, the instructor reserves the right to drop them from the course. However, if the student decides that they no longer want to participate in the course withdrawal by

the appropriate "drop" date is ultimately the responsibility of the student.

Participation

PHED 230 is a professional major's class. Student's are expected to act on a professional level this includes; class attendance, dress and class behavior. Attendance will be recorded each class period, students are expected to arrive on time and prepared for the class's scheduled activities. Student's who miss class, arrive late or leave early and cannot complete scheduled class assignments will lose points on these assignments.

*** Throughout the semester the class will be meeting in the gym (PE 140/ PE 119) to exercise and complete assessments of physical fitness, students must be dressed in appropriate workout attire to participate in these class activities. Students who are not dressed in appropriate workout attire will not be permitted to participate in class and will not be allowed to make up the assigned lab. Appropriate workout attire includes proper athletic footwear and comfortable clothing. Jeans and hiking boots are not appropriate attire. Workout days will be announced in class the week prior. If you miss class, you are still responsible for being prepared to exercise.

Communication

Student e-mail (montgomerycollege.edu) is an official means of communication for the College. It is expected that you check your student e-mail regularly and frequently, as you are responsible for information that will be sent to you from the College. If you contact me through e-mail, you must use your student MC e-mail account.

IMPORTANT: E-mails do not express tone of voice or body language so strive to use careful wording to convey your desired message. Please take an extra minute when sending an e-mail to think about what you want to say, spell-check your e-mail, and use appropriate, courteous, and professional language. Your professor will strive to do the same in all communications. E-mails will be answered within 24 - 48 hours during week days. If an e-mail is sent during a weekend or holiday, please expect a reply the following working day.

Use of Technology during class

Turn off cell phones, MP3 players, beepers and all other electronic devices prior to class. Students are not allowed to use these electronic devices during class time. Students who using these devices during class time will be asked to leave the classroom for the remainder of the class period (this includes phones that ring or vibrate during the class period).

Laptop computers may be used for note taking only. Students using laptops that do not directly involve classroom activities will be asked to leave for the remainder of the class period.

Blackboard – Technology:

It is the student's responsibility to be familiar with how to use Blackboard. If you are unfamiliar with the technology, you should visit the following web addresses to prepare for this course.

<http://cms.montgomerycollege.edu/EDU/Department2.aspx?id=9294>

VII. Montgomery College Information

In addition to course requirements and objectives that are in this syllabus, Montgomery College has information on its web site (see link below) to assist you in having a successful experience both inside and outside of the classroom. It is important that you read and understand this information. The link below provides information and other resources to areas that pertain to the following: student behavior (student code of conduct), student e-mail, the tobacco free policy, withdraw and refund dates, disability support services, veteran services, how to access information on delayed openings and closings, how to register for the Montgomery College alert System, and finally, how closings and delays can impact your classes. If you have any questions please bring them to your professor. As rules and regulations change they will be updated and you will be able to access them through the link. If any student would like a written copy of these policies and procedures, the professor would be happy to provide them. By registering for this class and staying in this class, you are indicating that you acknowledge and accept these policies. All students must review this link prior to signing the syllabus acknowledgement form.

<http://cms.montgomerycollege.edu/mcsyllabus/>

Date	Topic	Due Dates/ Info
Week 1	Introduction & Review of Syllabus	
	Ch 1. Introduction to Strength Training and Conditioning Class Project Overview	
Week 2	Ch. 3 Neural Adaptations to Training	
	Ch. 4 Muscle Adaptations to Training	Class Project Partner Assigned
Week 3	Ch. 5 Connective Tissue Adaptation to Training	
	Muscle and Movements Safety and Weight Room Regulations Be Dressed to Exercise	Meet In PE 140
Week 4	Class Project – Initial Client Meeting	Meet In PE 140
	Muscle Movement Assignment- Be Dressed to Exercise	Meet In PE 140
Week 5	Ch. 9 Principles of Strength Training and Conditioning	Muscle Movement Assignment Due
	Ch. 11 Resistance Training Program Design	Homework #1 (BB)
Week 6	1 RM Worksheet – Class Project	Homework #2 (BB)
	1 RM Worksheet – Class Project	Homework #3 (BB)
Week 7	Goal Setting and Basic Program Design	1 RM Worksheet Due
	Ch. 10 Warm Up and Flexibility Be Dressed to Exercise	Meet In PE 119
Week 8	Lab #1 Muscle Endurance Assessments – Be Dressed to Exercise	TEST #1 Due (BB) Meet in PE 140
	Ch. 15 Sprint and Agility Training (SAQ)	Meet in PE 119
Week 9	Lab #2 – Corrective Exercise Assessments - Be dressed to exercise	Meet in PE 140 Lab #1 Due (BB)
	Ch. 17 Periodization and Tapering	
Week 10	Lab #3 – Power/Skills Assessments – Be Dressed to Exercise	Lab #2 Due (BB) Meet In PE 140
	Tempo Demo – Be Dressed to Exercise	Meet In PE 140
Week 11	ATS Assignment – Be dressed to Exercise	Lab #3 Due (BB) Part I – Class Project Meet in PE 140
	Power Lifting Demo – Be dressed to Exercise	Meet in PE 140 Review Ch. 12
Week 12	Ch. 14 Plyometric Training	ATS Assignment Due
	Plyometric Assignment – Be Dressed to Exercise	Meet in PE 140 TEST #2 Due (BB)
Week 13	Alt. Equipment Assignment – Be Dressed to Exercise	Meet in PE 140 Part II – Class Project Plyometric Assignment Due

Week 14	Form and Correction Demo – Be Dressed to Exercise	Meet in PE 140 Alt. Equipment Assignment Due
	Teaching Demo – Be Dressed to Exercise	Meet in PE 140
Week 15	Teacher's Choice Workout – Be Dressed to Exercise	Meet In PE 140
	Teacher's Choice Workout – Be Dressed to Exercise Part III Class Project Due	
TBD	**FINAL EXAM Practical** 10:15 – 2:30	

***ALL BB Assignments are due on Blackboard by 11:59 PM!!**