

1-2014

HHP 528.01: Advanced Exercise Prescription

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The University of Montana

Department of Health and Human Performance
HHP 528: ADVANCED EXERCISE PRESCRIPTION
Spring Semester, 2014
Advanced Aerobic and Strength Training Theory

Instructors:

Brent Ruby – 243-2117, office: McGill 244. Brent.Ruby@umontana.edu

Steven Gaskill - 243-4268, office: McGill 104, Steven.Gaskill@umontana.edu

Class Time: 8:10-9:30 am. TR, **Classrooms:** Ed 241 and McGill 133

Office Hours: Dr. Brent Ruby: By appointment.

Dr. Steven Gaskill: MWF-8-9 am, T 1-2pm, and R 11-12am, or by appointment.

Textbooks: Students will have access to the Martens-Sharkey Library and the Mansfield Library where they will weekly chose appropriate books and manuscripts to study the topic of the week.

COURSE OVERVIEW: “Scientific Theory of Exercise Prescription”

This course is designed to explore their current beliefs about aerobic and muscular fitness as well as other aspects of athletic training and compare those beliefs with current scientific evidence. The course is designed as a student exploration with guided study.

Instructor’s Goals/Course Objectives: “Lifelong Skills”

1. Students will define their current beliefs in the many areas of performance exercise prescription.
2. Students will present and discuss those beliefs and ideas.
3. Each student will select a “sport” or “specialty” to focus their research.
4. Students will research the fundamentals of “science based” exercise prescription.
5. Students will present the scientific evidence and discuss that evidence across a wide range of athlete types.
6. Students will compare the scientific evidence to their current beliefs and design new personal paradigms by which they will prescribe athlete training.
7. Students will maintain a portfolio of new ideas and fundamentals that they will establish as their foundation for future work in exercise physiology and athlete training.

GRADING:

Participation-20%, Weekly Writing-25%, Presentations-25%, Final Exam-15%, Portfolio-15%

A- 90-100% B- 80-89.9% C- 70-79.9% D- 60-69.9% F- Below 60%

Plus/minus grades will be assigned: Example 80-82=B-, 83-86=B, 87-89=B+

COURSE REQUIREMENTS:

Class Participation and Attendance: Required

Weekly Assignments:

- Each Thursday class will begin a new topic. Students must bring:
 - A typed page (1” margins, double spaced 12 point Arial Font) describing your current fundamental beliefs in that area of discussion. This should be written without any references. On a separate page you may include hand drawn graphs and diagrams. These will be evaluated for English grammar and clarity of content.
 - A 3x5 index/note card with notes to use to present your current beliefs to the class. (See Presentations)
- Every Tuesday, students must bring:
 - A maximum 1 page typed (1” margins, double spaced 12 point Arial Font) summary of your reading (with citations imbedded and listed at the end). You may include well drawn figures/tables/diagrams on a separate page. The weekly reading is to include:
 - Appropriate sections from one or more books in your area of specialization

- One original research manuscript completely read
- One review paper when possible or a second original manuscript
- Evaluation will be on English grammar and clarity of research summary.
- Two 3x5 cards with notes ready to present one of their manuscript reviews.

Weekly Presentations:

- Every Thursday, two students will randomly be drawn to present their current beliefs on a topic. The first student will have up to 15 minutes to give a thorough overview of their guiding principles in that area. The second student will have up to 10 minutes to add to or adjust what the first student presented. These presentations are to be done without prior research of the literature, but after careful organization of the student's thoughts and beliefs about an area of training.
- Every Tuesday, two students will present using a similar format of 15 and 10 minutes, but this time presenting new material that they have learned what beliefs have changed or modified and current science based evidence on that training topic.
- Discussions: After each set of student presentations there will be a class discussion to bring in additional ideas, thoughts, evidence and myth and to discuss how prescription, within the specific topic varied to adapt to the specific needs of different groups or even individuals.

The Weekly Plan

Thursday

1. Written Assignment (belief paper) and associated 3x5 card ready.
2. Two students are drawn to present what they think/believe about a topic
 - a. 1st student 15 minutes, 2nd student 10 minutes to add or suggest differently (25 minutes)
3. Faculty leader may present a few thoughts (10 minutes)
4. Group discussion – especially focused on different sports or specialties (25 minutes)
 - a. During presentations and discussion students should add written notes to back of belief's page.
5. Visit to Martens-Sharkey Library to pick out new appropriate material to research topic.(20 minutes)

Tuesday

1. Have completed Tuesday reading and writing assignments plus 3x 5 cards and bring to class.
2. One student asked to present an original manuscript. (10 min w questions)
3. One student asked to present a review manuscript or their 2nd paper. (10 min w questions)
4. Two students are drawn to present their overall reading and what they now believe/science based principles.
 - a. 1st student 15 minutes, 2nd student 10 minutes to add or suggest differently (25 minutes)
5. Faculty Comments (10 minutes)
6. Group Discussion with a focus on the different needs of specific sports or specialties. (20 minutes)
7. Summarize (neatly) additional new ideas you would like to remember or use (on back of literature review) (5 min)

Portfolio

1. Individual weekly assignments may be picked up for grading at the discretion of the instructor. At least 4 times during the semester (but possibly many more) your assignments will be collected for grading. The grading will include content, logical flow and use of English. These will be returned and added to your portfolio. Graded assignments must include the original grading AND a corrected copy.
2. All assignments (with notes on the back of the beliefs and literature review pages) with 3x5 cards attached with paperclips must be kept in order in the portfolio.
3. At the end of the semester each student must write the following and add to their portfolio:
 - A summary of how their beliefs have changed in a two column format (1st column –Original belief; 2nd column-Science based principles).
 - A list of major training principles and how you will use them to prescribe training to athletic or special groups.

Exams: There will be a final exam. The format will be determined by the instructors. Given only on Wednesday, May 14, 8-10am

WEEK SCHEDULE (A week is considered Thursday to Tuesday)

<u>Week</u>	<u>Dates</u>	<u>Topic (Dates with and R or G after date indicates Ruby or Gaskill)</u>
1 st class	Jan 28	Introduction – Rules, Library access and other topics.
		<u>Foundations and Basic Principles</u>
1	Jan 30 & Feb 4	Basic Principles
2	Feb 6 ^R & 18	Fitness Assessment-Determining Baselines and Starting Points
3		NOTE: There will be no class meetings Feb 11 and 13. Both Drs. Gaskill and Ruby are out of town.
		<u>Aspects of Athletic Training Programs</u>
4	Feb 20 & 25	Mental Training and Skills plus Prescribing Technique Training
5	Feb 27 & Mar 4	Training for Strength
6	Mar 6 & 11	Training for Power
7	Mar 13 & 18	Training for Power-Endurance
8	Mar 20 ^G & 25 ^G	Periodization of Resistance Training
9	Mar 27 ^R & Apr 8 ^G	Long Duration Aerobic Training (Base) (Yes-you have an assignment over spring break)
10	Apr 10 ^G & 15	Aerobic Training – Developing Speed
11	Apr 22	Periodization of Aerobic Training (No class on 17 th – Prepare belief paper, then do research paper)
		<u>Putting It all Together</u>
12	Apr 24 & 29	Putting together mental, technique, aerobic and resistance periodization/programs
13	May 1 & 6	Advising parents and athletes on multi-year development
14	May 8	Advising parents and athletes on planning a year and planning individual workouts
	May 14 (Wed)	8-10am – Final Exam

STUDENTS WITH DISABILITIES OR MEDICAL CONDITIONS: If you have a known medical condition that could occur during class and which it would be helpful for the instructor to be forewarned, please make an appointment with the instructor, or visit him during office hours. If you feel that you might need assistance during an emergency, please recommend a plan to the instructor and let him know if you will need help. Students with disabilities are encouraged to discuss learning, testing and emergency need accommodations with the instructor.

ACADEMIC HONESTY – Students must read: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at <http://www.umt.edu/SA/VPSA/index.cfm/page/1321>.

HHP Vision Statement:

***Health and Human Performance Professionals
Creating a Healthy, Progressive Global Community.***

HHP Mission Statement:

Within the liberal arts tradition of The University of Montana and the mission of the PJ Washington College of Education and Human Services, the Department of Health and Human Performance (HHP) engages in professional education, scholarly activity, and meaningful public service. The department emphasizes all dimensions of health and human movement to advocate healthy lifestyle choices and enhance quality of life. The student-centered curriculum in HHP prepares quality graduates to be ethical and competent entry-level professionals in health and human performance related occupations or candidates for advanced study in associated disciplines.