San Diego State University  
School of Exercise and Nutritional Sciences  
ENS 307-Motor Learning and Performance  
Fall 2012

Contact Information  
Dr. Roger Simmons  
Office: ENS 316  
Phone/email: 594-5543  
rsimmons@mail.sdsu.edu  
Office Hrs: T/Th 8.00-9.00am  
TBA at student/instructor convenience

Course Prerequisites  
Psychology 101 and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, or Statistics 119. Limited to Kinesiology Majors

Course Materials  


Course Guide: AVAILABLE ONLY AT KB BOOKS

Purpose of the Course  
ENS 307 builds on the prerequisite psychology course by applying principles of learning and motor control to understand the acquisition and retention of motor skills as seen by professionals in the areas of Athletic Training; Fitness, Nutrition, and Health; Physical Education; Teacher Education; and Physical Therapy. The emphasis of the class will be on the integration of psychological principles to facilitate and optimize motor learning and the use of pedagogical strategies to enhance long-term skill acquisition.

Course Description  
This course begins with an overview of terminology specific to the discipline of motor learning and how motor learning and performance are assessed, quantified and analyzed. This section is followed by an examination of learning theories and the role of motor control systems in long-term retention. The final section of the course systematically explores factors that can positively or negatively facilitate skill acquisition and the use of appropriate instructional strategies. Active participation is strongly encouraged. I will pose questions to the class and I also invite questions that better clarify a concept. The class consists of three section examinations, and four quizzes concerning specific reading assignments.

School Learning Goals and Objectives  
ENS 307 will provide multiple learning opportunities to support the following goals and objectives of the School of Exercise and Nutritional Sciences:
Learning Goal 1. Demonstrate core critical thinking skills and dispositions to ask and answer questions relevant to exercise and nutritional science.

Objective 1.2: Evaluate alternative solutions to a discipline-based problem.

Objective 1.3: Present opposing viewpoints and alternative hypotheses on issues in exercise and nutritional science.

Learning Goal 3. Demonstrate understanding of scientific concepts, principles, and methods used in the study of exercise and nutritional science

Objective 3.1: Identify and explain the underlying assumptions of different research paradigms used in exercise and nutritional science.

Objective 3.2: Identify the steps in the scientific method of research.

Objective 3.4: Articulate the strengths and limitations of various research designs.

Learning Goal 7. Use the principles of assessment to evaluate a variety of measurement tools in exercise and nutritional science.

Objective 7.5: Evaluate the feasibility of different measurement tools in various settings.

Course Learning Objectives

1. Describe basic terms of measurement and evaluation and biomechanics as applied to motor learning.

2. Describe the essential characteristics of motor learning and performance, the relationship between the two states and the application to practical settings.

3. Calculate the degree of generality and specificity inherent to motor transfer.

4. Describe four theories of motor learning and two motor control systems.

5. Identify two essential characteristics of a theory.

6. Describe the pre-and post-instructional factors that affect learning rates.

7. Describe the organization of scheduling practice and periodization.

8. Identify the safety concepts of motor learning settings
Course Outline

Aug 28  Introduction
30  A Question of Learning
Sept 4  Classification of motor skills  10-29
6  Response measurements 1  30-53
11  Response measurements 2
13  Response error lab
18  Learning and performance 1  161-184
20  Learning and performance 2
25  Learning and Performance 3
27  Can Science Build a Champion Athlete?

Oct 2  Quiz 1: Generality and specificity  54-67
4  Examination 1
9  Human information processing  133-145
11  Signal Processing
16  Theories of skill acquisition 1  69-95
18  Theories of skill acquisition 2  282-304
23  Theories of Skill Acquisition 3
25  Theories of Skill Acquisition 4
30  Quiz 2: Memory

Nov 1  Attention: S-R compatibility
6  Examination 2
8  Models  223-245
13  Mental Practice  336-348
15  Quiz 3: Overlearning  305-319
20  Practice schedules
22  THANKSGIVING
27  Speed versus accuracy effects  96-102
29  Quiz 4: Part versus whole learning  320-335

Dec 4  Transfer of training  205-221
6  Putting it altogether!!

Final Exam Schedule:  Tuesday December 13th, 8:00 – 10:00 am

Assessment and Grading

EXAMINATIONS: Three examinations will be given on those days indicated on the course outline. The points for exams will be as follows:

Exams 1 and 2 will be comprised of 60 questions. Questions will be true/false and multiple-choice.

Exam 3 will be comprehensive and comprised of 60 questions from unit 3, and 25 additional questions from units 1 and 2.
**QUizzes:** Four quizzes will be administered on those dates indicated on the course outline. Quizzes will cover the material selected from the reading assignment on:

- **Learning and Performance** (5 questions: 1 pt each)
- **Gallwey’s book** (8 questions: 1 pt each)
- **Mental Practice** (7 questions: 1 pt each)
- **Speed versus accuracy** (5 questions: 1 pt each)

**Grading Criteria**
The grading scale is based on an evaluation system with defined cut-off points that represent standards of performance typical of a major four-year institution of higher education. The scale is designed to allow all students to complete work within the A level range while eliminating competition between students.

The maximum number of points for the course is 230. A final grade will be awarded according to the scale below.

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<td>230-207</td>
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<td>200-192</td>
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**Student Add Policy**
1. Graduating ENS majors for whom the course is required, conditionally classified ENS graduate students, and international students.
2. ENS majors for whom the course is required for the major and in order of total number of units completed in the major. This total must be verified prior to issuing an add code.
3. Undergraduate non-majors for whom the course is required and in order of total number of units earned at or transferred to SDSU.
4. Other students the instructor wishes to add in order of total number of units earned at or transferred to SDSU.

**Students with Disabilities**
If you have a documented disability and anticipate needing accommodations in this course, be certain that you work with the Disabled Student Services Office to secure appropriate documentation. Course accommodations will not be applied retroactively (e.g., after an examination).

**Plagiarism (General Catalog, page 449)**
“Work shall be deemed plagiarism: (1) when prior work of another has been demonstrated as the accessible source; (2) when substantial or material parts of the source have been literally or evasively appropriated; and (3) when the work lacks sufficient or unequivocal citation so as to indicate or imply that the work was neither a copy nor an imitation. In short, if one purports to present an original piece but copies ideas word for word or by paraphrase, those ideas should be duly noted.”
Course Policies:

1. If the instructor believes the reading assignments are not being completed, he reserves the right to administer a 'pop' quiz, without notice, on the day the assignment is due. Each new quiz will be worth 5 pts and will cover only the material in the reading assignment. A new grade scale will be distributed at the time of the quiz.

2. Make-up exams will be given only when special (very special) circumstances prevent attendance at the scheduled exam time. Attendance at the exam is your number 1 priority.

3. You will be allowed to make up one quiz with the permission of the instructor. Permission will only be granted if you have an acceptable excuse for missing the quiz in the first place. The quiz make-up will be administered on Thursday December 8th at 10.45 am in PG 153. No other make-up times will be provided.

4. You will need 7 (seven) ParSCORE sheets (Form NO. F-289-PAR-L Red color) for the exams and quizzes. You will not be allowed to re-use answer sheets.

5. Class begins three minutes after the scheduled time. If you cannot make it by that time, DO NOT come into the class.

6. In accordance with university policy, the final examination shall NOT be given on "study and consultation" days. Additionally, students will not be allowed to take the final exam earlier than the time and date scheduled in the SDSU class schedule. You must plan your schedule accordingly.

7. Cell phones must be turned off before the beginning of class. All forms of electronic communication such as text messaging etc., are not permitted in the classroom. Individuals who violate this policy will be asked to leave the classroom. Persistent use of non-classroom related electronic devices will result in the student being dropped from the class.

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