EXS 297 - MOTOR BEHAVIOR SUNY Cortland Kinesiology Department

Course InformationProfessor InformationCredit Hours: 3.0Instructor: Joy L. HendSemester/Year: Fall 2012Phone: (607) 753-570'Lecture Location: PRST 1176Office Location: PRSTLab Location: PRST 1146Office Hours: MondayTexts Required:Wednesdays 9:Hendrick, J. L. (2009). Motor behavior lab manualOthers by appo(2nd ed.). Dubuque, IA: Kendall/Hunt.ISBN 978-0-7575-7002-5Coker, C. A. (2009). Motor learning & controlJohn Cottone, Ifor practitioners (2nd ed.). Scottsdale,Eileen GravaniAZ: Holcomb Hathaway Publishers.PRST 1175; płISBN 978-1-890871-95-6ebook ISBN 978-1-934432-31-0 (discount code: FalleB20)

Professor Information Instructor: Joy L. Hendrick, Ph.D. Phone: (607) 753-5707 Office Location: PRST 1154 Office Hours: Mondays 1:30 – 4:30 pm; Wednesdays 9:00 – 11:00 am; Others by appointment Email: Joy.Hendrick@cortland.edu School of Professional Studies Dean's Office: John Cottone, Dean Eileen Gravani, Associate Dean PRST 1175; phone: 607-753-2701(2)

COURSE DESCRIPTION:

(A) Introductory course in motor behavior encompassing motor learning and motor control. The course emphasis is on the application of principles which affect behavior, learning, and performance. (3 cr. hr.)

COURSE ATTENDANCE POLICY:

LECTURE: Class attendance is required, however, students will not be penalized for up to three (3) unexcused lecture absences. After three unexcused absences there will be up to a ¹/₃ letter grade deduction on the final grade for *each* additional absence. Illness, travel, appointments, registration, and subpoenaed court appearances are some examples of **un**excused absences. Hospitalization, death in immediate family, and away athletic contests are examples of excused absences. Students should refer to the Kinesiology department Illness procedures on class website. Students are fully responsible for monitoring attendance by signing-in on the attendance sheet during each class period. Neither handouts nor notes will be given for material distributed or covered during an unexcused absence (or an excused absence without <u>prior</u>, written notification). *Students are 100 percent responsible for all work missed, regardless of the type of absence*.

LAB: Laboratory attendance <u>is mandatory</u> and students are expected to report to <u>all</u> labs <u>on time</u> and be prepared (bring lab manual and/or handouts, calculator, pencil and occasionally graph paper and text book (or pages) in order to actively participate). In the seldom occasion of an excused absence, <u>prior</u> arrangements <u>must</u> be made to make-up the missed lab within one week and/or to obtain the data.

TARDINESS: Arriving late to class and/or lab twice will count as one class absence.

EVALUATION OF STUDENT PERFORMANCE: Requirements and Evaluation:

I.	Examinations (13%, 16%, 16%, 20%)	65%
II.	Class and Laboratory Assessments	20%
III.	Group Project	<u>15%</u>
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EXAMS: No make-ups will be allowed for <u>unexcused</u> absences. Make-ups for excused absences (which may be in a different format) can be arranged only if made <u>prior</u> to the date of the scheduled exam. **NOTE:** Students must pass at least two exams (including the final exam) in order to meet *minimum* requirements to pass the course.

EXPECTATIONS: With only two lecture classes per week, the majority of student learning must take place *outside* of class. Therefore, for optimal student success, expectations include: coming prepared and on-time to all classes and labs, staying up-to-date and <u>studying</u> all assigned readings (this equates to *at least* 1-2 hours of out-of-class time between *each* class/lab session, with *additional time* for studying before each exam and for working on the group project), completing all review sheets, eagerly participating in lab experiences, and becoming actively engaged in group activities.

CLASSROOM/LAB ATMOSPHERE: Because texting and cell phones have become such an annoyance in college classrooms, the Kinesiology Department has discussed the following policy for our classes: "Out of respect for your fellow students, your professor and the educational process, cell phones, MP3 players and other electronic devices must be turned off and put away before class begins. Please clear any necessary exceptions, such as a potential emergency situation, with the professor before class. Also, while drinking water is acceptable, eating is inappropriate and a distraction to others. Please eat your meals before and after class." Failure to comply with the above policy could result in point deductions on the next exam. Laptop computers will be allowed for class use only and users must sit within the first two rows of the classroom; using them for non-class use during class time will result in loss of this privilege.

LABORATORY ASSIGNMENTS and OTHER PROJECTS: Each week in lab, students will participate in a mini-experiment which focuses on a concept(s) discussed in a class. Students will be expected to be actively engaged in all discussion, data collection and analysis procedures and to complete the associated handouts or pages in the *Motor Behavior Lab Manual*. Assignments could include preparing a written laboratory report, answering written questions, preparing an abstract of a research article, participating in oral in-class assessments or taking a written quiz. No late labs will be accepted for credit. All students are expected to submit their own work. Any written assignments submitted with identical content (in part or whole) will be considered plagiarized, a violation of the college's policy on academic dishonesty, and will be treated as such (refer to the *College Handbook*). With group-related projects, specific instructions will be given as to the expectations of each person's effort within the group. NOTE: *Minimum* requirements for passing the course include attending at least 80% of the labs, completing 75% of all assignments, and completion of the group project (including being part of culminating activity).

ACADEMIC INTEGRITY: The College is an academic community which values academic integrity and takes seriously its responsibility for upholding academic honesty. All members of the academic community have an obligation to uphold high intellectual and ethical standards. Students will not cheat or plagiarize in this course. Plagiarism, a serious academic offense, is defined as expropriating the ideas of others and using them as one's own without due credit. For more information on academic integrity and how academic dishonesty can occur, please ask your instructor and/or refer to the *College Handbook* (Chapter 340), *Code of Student Conduct and Related Policies*, and the following web site http://www2.cortland.edu/departments/english/wrc/students/integrity.dot. Any work submitted (in part or whole) that is not unique will be considered plagiarized and will be treated as such per academic policy. This includes, but is not limited to, material retrieved from references; therefore proper documentation of cited material (using quotation marks with associated page numbers) in APA is a must!

STUDENTS WITH DISABILITIES: SUNY Cortland is committed to upholding and maintaining all aspects of the federal Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. If you are a student with a disability and wish to request accommodations, please contact Student Disability Services located in Van Hoesen or call 753-2066 for an appointment. Any information regarding your disability will remain confidential. Because many accommodations require early planning, requests for accommodations should be made as early as possible. Any requests for accommodations will be reviewed in a timely manner to determine their appropriateness to this setting.

OBJECTIVES OF THE COURSE:

The student will be able to:

- 1. describe and apply the various theories, models, and stages of the learning process.
- 2. understand and describe the neurological and cognitive develop from infancy to adulthood and relate this to working with children and adults in motor performance examples.
- 3. identify the various factors that affect the acquisition of motor skills and plan a program incorporating these factors.
- 4. describe the function of basic neuromuscular processes in the control of movement and develop illustrations which indicate understanding of those functions.
- 5. use computers to collect, analyze and present data in lab in a logical and functional manner to enhance the quality of the information gathered, communicate it more effectively and to learn more about the concepts being examined.

COURSE OUTLINE:

- I. Learning Processes
 - A. Theories and Concepts
 - 1. Terminology (motor behavior, motor control, motor development, motor learning, psychomotor behavior, psychology...)
 - 2. Traditional Theories of Learning
 - 3. Dynamical Systems Theory
 - B. Stages of Learning
- II. Acquisition of Skill
 - A. Stages of Skill Acquisition
 - B. Practice Variables
 - 1. Distribution of Practice
 - 2. Task Structure
 - 3. Types of Practice
 - 4. Modeling
 - 5. Overlearning
 - 6. Goal Setting
 - 7. Motivation/Arousal
 - C. Transfer
 - D. Augmented Feedback and Knowledge of Results
 - E. Retention and Forgetting
- III. Control of Movement
 - A. Neuromuscular Organization
 - B. Control processes
 - 1. Open loop Closed loop
 - 2. Serial vs. Discrete
 - 3. Ecological Approaches
 - C. Units of Behavior
 - 1. Reflex
 - 2. Motor Programs
 - D. Perceptual-Motor Integration
- IV. Issues, Trends, and Current Practices

Tentative Lecture Schedule:

Date	<u>Lecture Topic</u>	Assigned Reading*
M 8/27	Introduction to Motor Behavior	Chapter 1
W 8/29	Skill Classification	Chapter 1 continued
W 9/5	Individual Differences and Motor Abilities	Chapter 1 continued
M 9/10	Information Processing and Reaction Time	Chapter 2 (pp. 23-36)
W 9/12	RT continued and Attention	Chapter 2 continued
M 9/17	Attention and Information Processing Demands	Chapter 2 continued
W 9/19	Anticipation Timing	Chapter 2 continued
M 9/24 W 9/26	EXAM 1 (chapters 1-2) Behavior Theories of Motor Control	Chapter 3
M 10/1	Motor Programming and Dynamical Systems	Chapter 3 continued
W 10/3	Stages of Learning	Chapter 5
M 10/8	Assessing Learning	Chapter 5 continued
W 10/10	Learning Styles and Transfer of Learning	Chapter 6
M 10/15	Skill Presentation	Chapter 7
W 10/17	Practice Design, and Speed/Accuracy Trade-off	Chapter 8
M 10/22 W 10/24	EXAM II (chapters 3, 5, 6 & 7) Group Project Overview; Goal Setting	Handouts; Chapter 8
M 10/29	Mental Practice	Chapter 8 continued
W 10/31	Practice Schedules; Contextual Interference	Chapter 9
M 11/5	Practice Schedules continued; Massed/Dist.	Chapter 9 continued
W 11/7	Diagnosing Errors	Chapter 10
M 11/12 W 11/14	Correcting Errors/Feedback EXAM III (chapters 8, 9 & 10)	Chapter 11
M 11/19	Augmented Feedback	Chapter 11 continued
M 11/26 W 11/28	Augmented Feedback; Neural Mechanisms Vision	Chapter 11 and 4 Chapter 4 (pp. 81-90)
M 12/3	Proprioception	Chapter 4 continued
W 12/5	Reflexes; Memory	Chapter 4 continued
T 12/11	FINAL EXAM (10:30 – 12:30)	

*Assigned readings refer to chapters in required textbook.

Graduate Assistant/ Lab Instructor – Justin Vanderbeck Office: PRST 1165 Phone: email: justin.vanderbeck@cortland.edu; Office Hours: tba

Lab Sections:	Thursday	8:00 - 9:50 am	L11	crn 92790
	Thursday	10:05 – 11:55 am	L13	crn 98048
	Thursday	12:40 - 2:30 pm	L12	crn 92792
	Thursday	2:50 - 4:40 pm	L14	crn 92807

Tentative Lab Schedule:

<u>Week</u> 1	<u>Dates</u> 8/30	Lab Title/Topic Introduction	<u>Lab Manual</u> pp. 1-3
2	9/6	Motor Skill Class (part I) & Individual Diff.	p. 5 plus handouts
3	9/13	Reaction Time	pp. 15-16
4	9/20	Anticipation Timing and Task Complexity	рр. 25-26
5	9/27	Open- versus Closed-loop Processes	pp. 11-12
6	10/4	Motor Skill Class. & Learning (parts II & III)	pp. 5-6
7	10/11	External versus Internal Focus	pp. 45-46
8	10/18	Fitt's Law: Speed-Accuracy Trade-Off	рр. 27-28
9	10/25*	Goal Setting	pp. 43-44
10	11/1*	Constant vs. Varied Practice	pp. 37-38
11	11/8*	Massed versus Distributed Practice	pp. 33-36
12	11/15*	Project work	
13	11/29*	Project work	
14	12/6	Group Project Event	

* A portion of each of these lab days will be devoted to group work

Please Note: Written lab reports, abstracts, and other lab assignments, when assigned, may be collected at the end of lab or assigned for the following week. In case of the latter, they will be collected at the very <u>beginning</u> of lab (i.e. labs are due at 8:00 for 8:00 lab start time, not 8:05 or 8:10). **Regardless of the type of absence, no late labs or assignments will be accepted for credit (even if you arrive to lab late).** Therefore, please arrive to lab *on time* with lab in hand. All make-ups for excused absences (with *prior* notification only) must be made up *prior to* the following week's lab.