

PPE 500: Movement and Brain Function

Fall 2016

Syracuse University

Department of Exercise Science

Instructor: Dr. Tunur

Office Hours: **By appointment ONLY**, Tuesday 1:30-12:30am, WB #202

E-mail: ttunur@syr.edu

Class day: Fridays

Locations and time: 10:35-11:35am Gym B
11:45-1:35pm* WB #303

** The class may end earlier than 1:35pm –up to 45 min- depending on the day*

Required Textbook: N/A

Required Equipment: **Clickers** (TurningPoint) – can be purchased from SU bookstore.

Course Description:

This special topic course will discuss the role the brain plays in the planning and coordination of movement as well as the effects of movement on brain function. A goal of the course will be to compare and contrast the effects of exercise and dance on brain health, cognitive function, and well-being. We will explore the underlying cellular, chemical, and neural mechanisms involved in the beneficial effects of movement on learning and memory, mood regulation and the relief of symptoms associated with neurodegenerative diseases, among others.

Course format will include an hour long movement (including mostly dancing or exercise) followed by lectures, group activities, clicker quizzes, student projects, and discussions of original research papers or videos in class and on Blackboard.

Learning Objectives

This is special topic course which aims to discuss the common grounds of neuroscience and dance/exercise. At the completion of the course, students should be able to:

- 1) Compare and contrast the effects of exercise and dance on brain health, cognitive function, and well-being.
- 2) Illustrate how movement is initiated, executed, and supported.
- 3) Summarize how movement can alter brain function.
- 4) Critically evaluate dance or athletic performances.
- 5) Deconstruct one's belief about traditional view of learning and memory.

- 6) Implement movement as a tool to deal with the problems that are relevant to their own lives.
- 7) Experiment with the range and ability of movement in their own bodies and reflect on the changes they notice freely.
- 8) Produce a video that utilize dance to describe a research project.

Course Attendance Policy:

Attendance in all lectures is highly encouraged. No assignments/handouts, quizzes will be given out after the class session in which they were distributed, unless previous arrangements had been made. No handouts, notes or assistance will be provided for material distributed or covered during an unexcused absence (or an excused absence without prior, written notification). Participation points will be lost for the day of the unexcused absences. All absences are immediately considered unexcused. However, absences may be excused at the discretion of the instructor if all of the following procedures are applied:

- 1) The instructor is notified in person, by email, or by telephone no later than one hour prior to the beginning of the respective lecture.
- 2) The reason for the absence is legitimate.
- 3) The absence can be validated.
- 4) In the case of an extended absence, written evidence from the associate dean is required.

Late Arrival for Lecture:

Please note that any student arriving late to lecture is responsible for all in-class assignments, quizzes, or announcements missed. If the class is already in the middle of an activity or a quiz, the student will be expected to wait quietly until the classmates complete the work.

Students are 100 percent responsible for all work missed, regardless of type of absence. There are no MAKE UPS for any of the assignments or quizzes (including clicker questions).

Daily expectations:

1. Professional bearing (on time, conduct, speech, dress).
2. Prepared for content and activity. Bring notebook and text daily for notes.
3. Positive attitude and contribution to the class.
4. Active participation in the classroom and gymnasium.
5. No use of computers, tablets, music or video players, cameras, or cell phones is allowed during the class time. **If these practices are discovered during class, the student will receive**

a warning the first time. After a second offense, 5 points of the FINAL Grade will be deducted each time. If you have special needs that require you to use any of these devices mentioned above, please contact your instructor in the first week of the semester.

The instructor reserves the right to excuse the student from class for not meeting one or more of these expectations listed above. In that case, the student will be responsible for all work missed.

Dress Policy:

Activity courses are an important part of professional preparation and students should dress in a manner that reflects positively on their professional aspirations. Clothing should be modest; permit unrestricted and safe movement; be appropriate to the demands of the particular activity; and appear neat, clean and free of stains/tears. Footwear should match the characteristics of the surface/activity. No hats or hoodies are allowed during class. For more detail, talk to the course instructor. ***During the movement portion of the class no short shorts, skirts, or jeans allowed. If during lab activities students are not dressed appropriately they will be asked to leave the classroom and they will not receive the points for the lab.***

Class Behavior:

Students should not engage in any type of disruptive behavior during class. This is to include reading the newspaper, using the cell phone, tablets, computers (unless approved by the instructor) talking, eating, etc. The instructor reserves the right to excuse the student from class for such behavior. If behavior problems become habitual the student will be referred to the Department Chair and/or the Dean of Education and Performance, possibly resulting in further sanctions.

Important Note:

Professional behavior and attire are at all times considered minimum competencies for the course. Please see me if you have any questions as to the nature of professional behavior and attire. Additionally, during an exam late comers will not be accepted once another student has submitted his/her exam.

Academic Honor:

Syracuse University's Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the policy and know that it is their responsibility to learn about course-specific expectations, as well as about university policy. The university policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same written work in more than one class without receiving written authorization in advance from both instructors. The presumptive penalty for a first offense by an

undergraduate student is course failure, accompanied by a transcript notation indicating that the failure resulted from a violation of Academic Integrity Policy. The standard sanction for a first offense by a graduate student is suspension or expulsion. For more information and the complete policy, see the [Academic Integrity Webpage](#). Note: this syllabus will be posted on blackboard. You will be able to access to hyperlink online

Academic integrity is important to the proper conduct of any class. Key points to keep in mind are:

- Presenting other people's ideas without proper reference to the source is plagiarism and is considered academic dishonesty.
- Fabricating data in laboratory exercises is considered academic dishonesty.
- Talking during exams, other than to the instructor or other proctor is considered academic dishonesty, as is looking at others' papers or using "cheat sheets."
- Signing in for another on attendance or sign-in sheets is considered academic dishonesty.

Sanctions for academic dishonesty include:

- An "F" grade for the assignment in question or for the entire course.
- Official warning or probation.
- Permanent dismissal from the college.

Disability Statement:

If you believe that you need accommodations for a disability, please contact or visit the [Disability Services Webpage](#), located at 804 University Avenue, room 309, or call 315-443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities "Accommodation Authorization Letters," as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

Religious Observation:

SU's Religious Observance Policy, recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice/Student Services/Enrollment/My Religious Observances from the first day of class until the end of the second week of class.

FERPA:

The Family Educational Rights and Privacy Act (FERPA) sets forth requirements regarding the privacy of student records. FERPA governs both the access to and release of those records,

known as education records, and the information they contain. Under FERPA, faculty have a legal responsibility to protect the confidentiality of student records. For additional information about FERPA and SU's FERPA policy, see [FERPA Policy](#) or contact your school/college records office or the Registrar's Office (315-443-3535).

Students Athletes:

Student athletes are obligated to meet both their academic and athletic commitments; however, there are times when required travel schedules do conflict with class schedules and other academic commitments. If you have student athletes enrolled in your course(s), you will receive a letter from the Student-Athlete Support Services within the Department of Athletics, verifying the student's status and providing you with a specific travel schedule. It's a good idea to talk with student-athletes early in the semester about how course requirements can be met given required absence(s). Kevin Wall, in the Athletic Department, (315) 443-2702, is available to answer questions.

Student Assignments:

All written work for lab must be submitted on the date and time the assignment is due (during class time). **LATE ASSIGNMENTS WILL NOT BE ACCEPTED.** In general, students may not make up daily assignments. These are often cooperative, interactive events that cannot be re-created outside of the classroom experience. All assignments are intended as opportunities for students to communicate their knowledge and perspectives individually. As such, communication skills are part of the grade that includes spelling, grammar, and composition. **All out-of-class assignments have to be word processed and printed** (hard copy only, assignments delivered via email will NOT be accepted; unless indicated by the instructor). Hand written work will not be accepted and not graded. **Plagiarism WILL NOT be tolerated and will result in disciplinary action.** If you are not sure how to cite sources to avoid plagiarism please contact me in advance. **The final project for this course will be submitted online by Nov 18th.**

Safety:

In the event that a participant goes down and a phone needs to be located, the instructor remains with the participant while another member of the class goes for help. AED's (Automated External Defibrillators) are located: Flanagan Exercise studio, outside the studio under the stairway. Ernie Davis, outside studio by the main desk. Archbold, located in the lobby outside service center. Women's Building, located in main hallway before Exercise Science office.

Emergency

Campus Phone 711

Campus Pay Phone *711

From AT&T, Verizon, or Sprint cell phones #SU (#78)

Emergency email and text messaging, from any cell phone 711@syr.edu

From any phone 315-443-2224

PPE-500 TENTATIVE Course Outline and Schedule

"The syllabus is subject to change: This course outline is simply for guidance, we may spend more time on certain topics depending on interest and discussion level generated. I will however expect your full cooperation, professionalism in lab as well as integrity on all assignments and test."

Sept 2	Syllabus & Introduction – Intro to skeletal system
Sept 9	Skeletal system & joints
Sept 16	Muscular System
Sept 23	Muscular System - Final Project Part I due
Sept 30	Sensory motor system
Oct 7	Association cortex & Secondary motor cortex
Oct 14	Primary motor cortex, cerebellum, spinal cord, & motor pathways
Oct 21	Reflexes / (Research and choreography)
Oct 28	Exercise and metabolism - Final Project Part II due
Nov 4	Learning and memory
Nov 11	Learning and memory
Nov 18	Parkinson's disease - Final Project Part III due
Nov 25	THANKSGIVING
Dec 2	Dance for PD
Dec 9	Final project video viewing

Breaking | Movement | Strengthening/Conditioning | Sensory Integration | Taekwondo

Prerequisites

Prerequisites can be adjusted for non-BIO majors.

Class attire

This class will contain an exercise/dance portion. Please come dressed ready to move around the floor. No short SHORTS, no tight JEANS, no SKIRTS!! Not having the right attire may result in exclusion of the exercise along with losing participation points for that day.

Required Equipment

Please have your clickers registered and licensed. Set your **clickers** to channel **42**.

Grading

Exams: 0%

There will not be any mid-terms or finals for this course.

Participation & movement: 10%

*Class participation points are subjective. It will depend on the instructor's assessment as well as peer- and self- assessment during group activities and class discussions. The grading for the movement portion of the class is not based on the ability or the performance level of the students, but on the **interest** and **effort** they show. If a student does not dress appropriately for the movement portion he/she will get zero for that day. If a student does not show enthusiasm, does not engage in the activities or discussion, or is late to the class etc. he/she will lose points.*

ICA & OCA: 10%

There will be in- and out-of-class assignments. No late assignments will be accepted. You have 1 week for OCAs.

Journal entries: 10%

Students will be asked to write about their experiences about the movement portion of the class on journals on Blackboard. My Reaction function on Blackboard will be used. You have one day to complete the journal for each class (due Sat at 1:30pm). No late journals will be accepted. Although informal and subjective they may be, these journals should still reflect good quality of academic writing and respect. The content should be clear and well thought out.

Clicker questions/ quizzes: 30%

No attendance will be taking in class; however, there will be random in-class-assignments and pop-quizzes given. Pop-quizzes will cover the material we have covered thus far, and the assignments given. There will be no make-up assignments for in-class work. The lowest in-class assignment grade, however, will be dropped at the end of the semester.

Final project: 40%

Final project consists of:

- *A paper including an abstract of a chosen research article and related background information (10%)*
- *A paper summarizes and discusses the findings of the selected article (15%)*
- *A video, produced and danced by you, of a "Dance Your Research Article" (15%)*

Final letter grades will be determined by the following scale: Percent	Letter Grade
93 and above	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
60-66	D
59 and below	F

Academic Integrity

Academic dishonesty will not be tolerated in this classroom. It is the responsibility of each student to know and understand the university's policies on academic integrity (see below and online at: <http://academicintegrity.syr.edu/>). If you have further questions, feel free to contact your instructor.

"Syracuse University sets high standards for academic integrity. Those standards are supported and enforced by students, including those who serve as academic integrity hearing panel members and hearing officers. The presumptive sanction for a first offense is course failure, accompanied by the transcript notation "Violation of the Academic Integrity Policy." The standard sanction for a first offense by graduate students is suspension or expulsion. Students should review the Office of Academic Integrity online resource "Twenty Questions and Answers About the Syracuse University Academic Integrity Policy" and confer with instructors about course-specific citation methods, permitted collaboration (if any), and rules for examinations. The Policy also governs the veracity of signatures on attendance sheets and other verification of participation in class activities. Additional guidance for students can be found in the Office of Academic Integrity resource: "What does academic integrity mean?""

Faith Tradition Observances

Students will have the opportunity to make up examinations and/or assignments that are missed due to religious observances as long as they notify the instructors within the first two weeks of classes. To notify instructors, please fill out the online notification of religious observances that is available through your MySlice. Important note: This notification must take week before the end of the second week of classes.

Medical Absences

As per Syracuse policies, "Excuses for class absences for medical reasons will be given only if such absences are advised by a health care provider at the Health Center, based on clinical findings and prescribed treatment recommendations. Excused notes will not be given solely to confirm a visit to the Health Center. For complete details on excuse notes, visit: <http://health.syr.edu/students/policies.html> "

Accommodations for Disabilities

If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.