# **New Course Proposal**

Subject Occupational Ther (Dept-Kines) (695) Status Under Review by Subject Owner

Proposer Ruth Benedict

# **Basic Information**

What is the primary divisional affiliation of this course?

Interdivisional

### **Course Title**

Doctor of Occupational Therapy: Capstone Project I-IV

**Transcript Title (limit 30 characters)** 

OTD Capstone

Three-digit course number

881

Is this an honors course?

No

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

No

Will this course be crosslisted?

No

Note the crosslisted subjects

Is this a topics course?

No

Can students enroll in this course more than once for credit?

Yes

### If yes, please justify

Each OTD student must complete a Capstone Project as a requirement for the degree. It is a non-thesis, culminating project in which students demonstrate mastery of the content and competencies learned through other didactic coursework. The Capstone Project provides students with direct experience in an inter-professional collaborative activity under the guidance of a mentor committee. Students will design and develop this project in a series of capstone project courses. Occ Ther 881 is an on-line 4 credit, multi-semester graduate course designed to facilitate the development and initial implementation of the OTD Capstone Project. Starting with the spring semester of the first year the OTD program, students will register for one credit of Occ Ther 881 - Capstone Project I-IV and continue enrollment for each subsequent fall and spring semester through the fall semester of the 3rd year. The Capstone Project will be completed, analyzed and disseminated in a subsequent 3 credit course, Occ Ther 882 - Project Completion, Presentation and Dissemination during the final spring semester of the program.

## **Typically Offered**

Fall, Spring

# **Catalog Information**

Minimum credits

4

**Maximum credits** 

4

**Grading System** 

A-F

**Course Description (will be published in Course Guide)** 

Multi-semester graduate course designed to facilitate the development and initial implementation of the OTD Capstone Project.

Does the course have prerequisites or other requirements?

No

List the prerequisites and other requirements for the course

Indicate the component(s) that comprise the course. Check all that apply

Discussion Seminar

# **Administrative Information**

**Chief Academic Officer** 

Ruth Benedict

Designee of chief academic officer for approval authority

Theresa A Pope; Zoe Elizabeth Hurley

If there are additional contacts, please list

Will any courses be discontinued as a result of this proposal?

No

List course number(s) and complete a course discontinuation proposal for each course

**Beginning Term** 

Spring 2016-2017

# **Academic/Program Information**

Is this course intended for a new academic program for which UAPC approval has not yet been finalized?

Which program?

Explain the relationship and importance of the proposed course to existing programs or future programs. (A program is a certificate, major or degree.)

The proposed course is specific to the OTD curriculum. Students in the post-professional Doctor of OT program enter with a Masters degree. The capstone project requirement was designed to be consistent with the accreditation requirements for entry-level training of occupational therapists at the OTD level. The capstone requirement is designed to encourage the integration and synthesis of content across the entire curriculum into the design and implementation of a major project applicable to a practice setting. As practitioners working in the field, students will identify a gap in knowledge or specific programmatic need in the health delivery system.

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this course meets, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement).

Partially fulfills the capstone requirement for the OTD. A subsequent course (Occ Ther 882 - Capstone Project V) in which students will complete the implementation, evaluation, interpretation of findings and dissemination of their capstone project is under development.

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit? *No* 

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

# **Course Content**

#### Describe the course content

Development of the Capstone Project will be achieved during the course under the guidance of the instructor in collaboration with the student's Professional Mentoring Committee (PMC). The Capstone Project will be organized around the student's proposed evaluation or innovation of an area related to practice. A series of qualifying tasks, each of which represents a critical phase of the proposal and project implementation, will be the focus of the course. The course instructor for Occ Ther 881 is responsible for facilitating and overseeing each student's progress on a project. The primary focus for each semester of enrollment is as follows: Capstone Project I - Need Identification: Development of Problem Statement (Spring Semester Yr.1) Capstone Project II - Gathering Evidence: Theoretical, Clinical & Empirical (Fall Semester Yr. 2) Capstone Project III - Project Design & Proposal: Program Description, Evaluation, Funding & Dissemination Plan (Spring Semester Yr.2) Capstone Project IV - Project Implementation (Fall Semester Yr.3) During each semester, the course instructor will hold 3-5 synchronous, collaborative online seminars and/or discussions with all of the enrolled students. Content will be relevant to the expected Capstone Project activities for the semester as well as the learning needs of the cohort based on their selected projects. Additionally, there will be asynchronous online discussions relevant to the students' projects and the semester's focus. Individualized interactive discussions, readings, and applied assignments will be used to accomplish course objectives. Students will work collaboratively with a Professional Mentoring Committee and the course instructor to accomplish specified learning activities.

Address the relationship of this course to other UW-Madison courses, including possible duplication of content *None* 

Is there a relationship to courses outside your subject?

Indicate the outside affected subject(s). The proposal will be sent to those subjects for review.

List the instructor name and title (list multiple if applicable)

Ruth E. Benedict, Professor

If the instructor is not a tenured or tenure-track faculty member at UW-Madison, please explain the instructor's qualifications here. Then, go to the "Justifications" tab and upload the instructor's c.v. in the "Additional Attachments" section.

Attach a syllabus. See "help" for an explanation of what must be included in the syllabus.

OTD 881 - Capstone project I-IV.pdf

# **Justifications**

## Explain how this course contributes to strengthening your curriculum

The requirement is designed to promote students' integration of content across the OTD curriculum. It provides students the opportunity to apply newly acquired skills in leadership, needs assessment, program development, project management, analysis, synthesis, advocacy and dissemination of information to an inter-professional context. It strengthens the curriculum by providing a mechanism for higher level cognitive skills including collaboration, creation of a new idea or product, and evaluation of their learning.

Provide an estimate of the expected enrollment

15-20

Justify the number of credits, following the federal definition of a credit hour (see help). Include the number of contact hours or, if contact hours are not an accurate measure of credit, provide an explanation of how credits are measured Each semester, as a part of the seminar, students will be required to engage in 6-10 direct contact hours with the course instructor, experts in content areas, and their peers. Students will also participate in weekly facilitated asynchronous discussions and will engage in an additional 5-10 hours of direct individual interaction and guidance with the course instructor. Students will also have periodic interactions with the members of their Professional Mentoring Committee.

If this is a variable credit course, provide rationale

Additional comments (optional)

Additional attachments (optional) (please read " help" before uploading an attachment)

# **Designations**

Should this course have the graduate course attribute?

If yes, this course:

Should the course be reviewed for L&S liberal arts and science (LAS) credit?

No

What is the rationale for seeking LAS credit?

Level of the course, for L&S attributes (value required for all L&S courses and courses requesting LAS credit)

Should the course be reviewed for L&S breadth requirements? *No* 

Indicate which:

# **General Education Designations**

Should the course be reviewed for the general education requirement?

No

Which requirements?



UNIVERSITY OF WISCONSIN
Department of Kinesiology
Occupational Therapy Doctorate Program

# Course Syllabus Occupational Therapy 881: Capstone Project I-IV

Capstone Project I - Need Identification: Development of Problem Statement (Spring Semester Yr.1)

Capstone Project II - Gathering Evidence: Theoretical, Clinical & Empirical (Fall Semester Yr. 2)

Capstone Project III - Project Design & Proposal: Program Description, Evaluation, Funding & Dissemination Plan (Spring Semester Yr.2)

Capstone Project IV - Project Implementation (Fall Semester Yr.3)

Credits: I credit per semester – 4 total credits

Format: Seminar and Discussion

Instructor:

Ruth Benedict, DrPH, OTR 608 890-0160

rbenedict@wisc.edu

Office hours/Chat hours: By Appointment

# **COURSE DESCRIPTION, OBJECTIVES, & POLICIES**

## **Course Description**

Each OTD student must complete a Capstone Project as a requirement for the degree. It is a non-thesis, culminating project in which students demonstrate mastery of the content and competencies learned through other didactic coursework. The Capstone Project provides students with direct experience in an inter-professional collaborative activity under the guidance of a mentor committee. Students will design and develop this project in a series of capstone project courses (7 credits) with faculty mentor guidance.

# Course Objectives\*

Upon course completion, the student will be able to:

1. Identify a relevant clinical problem, gap in practice or specific need in the student's area of occupational therapy practice or desired professional



- development
- 2. Develop a clear problem statement or specific statement of need
- 3. Identify and retrieve relevant theoretical, clinical and empirical peer reviewed literature
- 4. Conduct a scholarly review of the literature
- 5. Write a comprehensive project or program development proposal
- 6. Obtain all necessary IRB and institutional reviews and approvals
- 7. Implement the project or program described in the proposal
- 8. Appraise the outcome using appropriate evaluation or analytic techniques
- 9. Synthesize the results and discussion sections of the final report

# **Graduate Learning Outcomes:**

- Articulate and apply underlying theories, concepts and techniques of occupational therapy intervention to health promotion and well-being for the prevention of disease and dysfunction.
- 2. Translate evidence into best practice for the continued development of the profession.
- 3. Develop and implement an inter-professional, scholarly capstone project that addresses an identified service system, intervention or programmatic problem, relates theory to practice and demonstrates synthesis of advanced knowledge in a practice area.
- 4. Demonstrate an understanding of the process for locating and securing grants and how grants can serve as a fiscal resource for scholarly and programmatic activities.
- 5. Synthesize current knowledge, available evidence and responses to interventions to inform new approaches to practice problems.

Occ Ther 881 is an on-line 4 credit, multi-semester graduate course designed to facilitate the development and initial implementation of the OTD Capstone Project. Starting with the spring semester of the first year the OTD program, students will register for one credit of Occ Ther 881 - Capstone Project I-IV and continue enrollment for each subsequent fall and spring semester through the fall semester of the 3<sup>rd</sup> year. The Capstone Project will be completed, analyzed and disseminated in a subsequent 3 credit course, Occ Ther 882 – Project Completion, Presentation and Dissemination during the final spring semester of the program.

Development of the Capstone Project will be achieved during the course under the guidance of the instructor in collaboration with the student's Professional Mentoring Committee (PMC). The Capstone Project will be organized around the student's proposed evaluation or innovation of an area related to practice. A series of qualifying tasks, each of which represents a critical phase of the proposal and project implementation, will be the focus of the course. The course instructor(s) for Occ Ther 881 & 882 are responsible for facilitating and overseeing the students' progress on the project.



# <u>Description of Professional Mentoring Committee (PMC)</u>

Each student, with support from the course instructor, OTD Program Director and/or the faculty adviser, is required to develop a PMC consisting of a minimum of three professional mentors that meet the following requirements:

- One UW-Madison Graduate faculty mentor
- One additional UW-Madison Faculty or Academic Staff with a doctoral degree
- One practitioner with a masters or doctoral degree having demonstrated expertise in the area of project content
- One certified and licensed occupational therapist (who could also fill the roles as mentor or expert practitioner)
- One expert in content outside the field of OT.

At least one member of this committee must be a non-OT (IPE mentor) and demonstrate an inter-professional perspective. At least one member should be chosen based on expertise in subject matter related to the student's professional goals and/or capstone project. Students will submit a proposal for members of the PMC to the PP-OTD Program Director by a set deadline during the first fall semester. The Program Director will review and approve proposals for membership of the PMC.

The PMC will select one person to serve as Chair. The responsibilities of the PMC chair include being the primary contact for the student's capstone project, helping the student hone her or his interests, and providing support for career development. In addition, the PMC chair may provide links to professional networks, resources, and extracurricular activities, which serve to enhance the educational experience (such as seminars, conferences, speakers, professional meetings) of the student. The members of the PMC are responsible for providing the student with support during the Capstone Project process, approving the project proposal and evaluating the student's final capstone project and presentation.

By the end of Occ Ther 881 - Capstone Project III, the course instructor will coordinate scheduling of a proposal review with the student's PMC to ensure that the proposed project is:

- 1) of sufficient academic rigor to meet Capstone Project requirements.
- 2) reflective of a doctoral-level project, and
- 3) scientifically and clinically sound and likely to contribute to the knowledge base
- of Occupational Therapy.

Approval of the proposal will serve as a contract between the student and the Committee regarding the work necessary to pass the final Capstone course.

# Capstone Project Approval Committee & Criteria for Evaluation

At the conclusion of the Capstone Project, the PMC Chair will make a recommendation



to the Capstone Project Approval Committee (CPAC) with regard to whether or not the student's Project satisfactorily meets the OTD requirements. Members of the CPAC must, at a minimum, be five Graduate Faculty, four of whom will be from UW-Madison. At least one designated Graduate Faculty Mentor from the student's PMC will serve as a member of the review committee when that student's work is being reviewed.

The criteria for evaluation and project outcomes include:

- I. Description of a gap or specific need in the student's area of practice or in alignment with the student's professional goals,
- II. A scholarly review of the theoretical, clinical and empirical literature in the area to be studied.
- III. A description of an innovative program, intervention or approach to the identified problem and detailed evaluation, funding, and dissemination plans,
- IV. Project implementation
- V. A summary report of the findings, critique of the process and generation of ideas for alternative approaches. (See syllabus for OT 882 Capstone Project V: Project Completion, Presentation & Dissemination for details of the final capstone project requirements)

Regardless of project, students will be required to meet criteria for successful completion of each step in the process.

Each project will consist of:

- 1) a literature review that supports and justifies the need for the project, identifying gaps in knowledge within the domain of study
- 2) a description of the method(s) that will be used to achieve the project
- 3) an evaluation or analysis plan
- 4) implementation of at least a portion of the project (to be determined by the PMC in collaboration with the student)
- 5) description of results from the implementation
- 6) a discussion of the results interpreted in light of already existing knowledge
- 7) preparation of a professional report or manuscript related to the project
- 8) presentation of the final project to the faculty and fellow students
- 9) dissemination to a peer-reviewed, inter-professional audience

Further, there should be evidence that the project:

- a) include ideas, concepts, or techniques beyond those currently in practice;
- b) make a substantive contribution to knowledge or practice in the field;
- c) demonstrate breadth of learning; and
- d) advance inter-professional practice for the benefit of society.

# Prerequisite Knowledge for this Course

Academic Knowledge: Master's Degree in Occupational Therapy



Minimum Technical Skills:

- 1. Using the learning management system
- 2. Using email with attachments
- 3. Creating and submitting files in commonly used word processing program formats
- 4. Copying and pasting
- 5. Downloading and installing software

The types of capstone projects that students might select include, but are not limited to:

- Meta-analysis of evidence for a particular clinical intervention
- Pilot study on the efficacy of a particular intervention technique
- Development of a comprehensive quality improvement or quality assurance plan in a defined practice setting
- Program development of a new academic, clinical or community-based program
- Continuing education course development
- Program evaluation or review
- Client education materials that are evidence based
- Innovation or evaluation of new teaching method
- Legislative policy analysis
- Product development and evaluation
- Development of an evidence-based best practices or standard of care document
- A scientific research project involving the use of secondary data, a substudy of faculty research, case study or
- Management systems project

## **Course Format**

This class will use individualized interactive discussions, readings, and applied assignments to accomplish course objectives. Students will work collaboratively with the PMC and the course instructor to accomplish specified learning activities.

During each semester, the course instructor will hold 3-5 synchronous, collaborative online workshops and/or discussions with all of the enrolled students. Workshop content will be relevant to the expected Capstone Project activities for the semester as well as the learning needs of the cohort based on their selected projects. For example, an expert in grant identification and proposal writing might provide an online lecture or workshop in Capstone Project III - Project Design & Proposal: Program Description, Evaluation, Funding & Dissemination Plan.

### **Textbook**

Author: Issel

Title: Health Program Planning and Evaluation, Third Edition

ISBN: 9781284021042

This text will be used across all of the Capstone courses.



# **Student Evaluation**

Course grading is based on the successful completion of the steps in the Capstone project process. For Occ Ther 881, students making satisfactory progress on their project will receive a grade of "P" for completion of semesters I-III with a final grade assigned in semester IV.

Assignment (by semester)		Criteria	Percentage of Final Grade	
I.	Need identification	<ul> <li>Environmental scanning and SWOT analysis to determine nature of problem and forces influencing</li> <li>Conceptual model</li> <li>Development of problem statement</li> </ul>	10%	
II.	Gathering Evidence	<ul> <li>Gathering evidence that supports and justifies the need for the project</li> <li>Description of data sources and/or criteria for evaluation</li> <li>Identifying gaps in knowledge within the domain of study</li> </ul>	30%	
III.	Program Description & Plan	<ul> <li>A thorough description of the project:         <ul> <li>Purpose, Mission &amp; Vision statements</li> <li>Detailed methods and implementation plan</li> <li>Evaluation criteria</li> <li>Funding &amp; resources</li> <li>Legal obligations</li> <li>Standards which must be met</li> </ul> </li> </ul>	30%	
IV.	Project Implementation	<ul><li>Approval of written proposal</li><li>Actions to implement</li><li>Progress report</li></ul>	30%	
Total			100%	

# DRAFT

# Grading Scale:

%	Grade
94-100	Α
90-93.99	AB
84-89.99	В
80-83.99	ВС
70-79.99	С
65-69.99	D
< 65	Fail



# Schedule

Capstone Project	Explore	Engage & Interact
I. Description of a gap or specific need in the student's area of practice or in alignment with the student's professional goals,	Readings:  Text:  Issel – Chapters 1-3  E-articles: Springer AE, Evans AE. Assessing environmental assets for health promotion program planning: A practical framework for health promotion practitioners. Health Promot Perspect. 2016;6(3):111-118. doi: 10.15171/hpp.2016.19.  Other: Students will self-identify at least 5 relevant articles to guide and support the development of their needs assessment and problem statement.	Engage 1 - Conduct environmental scanning to identify strengths, limitations, opportunities and challenges related to proposed project. 2 - Create SWOT analysis chart 3 - Create a conceptual model of the problem and associated factors influencing outcomes 4 - Develop a problem statement specifying the issue to be addressed during the Capstone project  Interact 3-5 Synchronous online "seminars" or "discussions" of 2 hours each spaced strategically during the semester to cover topics relevant to content
II. A scholarly review of the theoretical, clinical and empirical literature in the area to be studied,  III. A description of an innovative program, intervention or approach to the identified problem and detailed evaluation, funding, and dissemination plans,	Readings: Text: Issel - Chapter 4-5  Other: Students will self-identify data sources and relevant articles to guide and support the development of their needs assessment and problem statement.  Readings: Text: Issel - Chapters 6-7	Engage  1 - Gather evidence from multiple sources that supports and justifies the need for the project 2 - Describe selected data sources and/or criteria for evaluation  3 - Identifying gaps in knowledge within the domain of study  Interact  3-5 Synchronous online "seminars" or "discussions" of 2 hours each spaced strategically during the semester to cover topics relevant to content  Engage  1 - A thorough description of the project:  Purpose, Mission & Vision statements  Detailed methods and implementation plan  Evaluation criteria  Funding & resources  Legal obligations  Standards which must be met
disconniction plants,		Interact 3-5 Synchronous online "seminars" or "discussions" of 2 hours each spaced

# DRAFT

		strategically during the semester to cover topics relevant to content
IV. Project Implementation	Readings: Text: Issel - Chapter 8-11	Engage  1 – Seek PMC approval of written proposal 2 – Create list of actions to implement 3 – Set timeline & deadlines 4 – Submit report of progress at end of semester  Interact 3-5 Synchronous online "seminars" or "discussions" of 2 hours each spaced strategically during the semester to cover topics relevant to content



# **New Course Proposal**

**Subject** Kinesiology (742) **Proposer** Julie Marie Stamm Status Under Review by Subject Owner

# **Basic Information**

What is the primary divisional affiliation of this course?

Interdivisional

### **Course Title**

**Human Anatomy** 

**Transcript Title (limit 30 characters)** 

**Human Anatomy** 

Three-digit course number

328

Is this an honors course?

No

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

No

Will this course be crosslisted?

No

Note the crosslisted subjects

Is this a topics course?

No

Can students enroll in this course more than once for credit?

No

If yes, please justify

**Typically Offered** 

Fall, Spring, Summer

# **Catalog Information**

Minimum credits

3

**Maximum credits** 

3

## **Grading System**

A-F

### **Course Description (will be published in Course Guide)**

Uses a regional approach to provide a foundation of knowledge in human anatomy. Units cover an introduction to anatomical systems; back and limbs; thorax, abdomen, and pelvis; and head and neck.

Does the course have prerequisites or other requirements?

No

List the prerequisites and other requirements for the course

Indicate the component(s) that comprise the course. Check all that apply

Lecture

# **Administrative Information**

**Chief Academic Officer** 

Gary M Diffee

Designee of chief academic officer for approval authority

Zoe Elizabeth Hurley

If there are additional contacts, please list

Will any courses be discontinued as a result of this proposal?

No

List course number(s) and complete a course discontinuation proposal for each course

**Beginning Term** 

Summer 2017

# **Academic/Program Information**

Is this course intended for a new academic program for which UAPC approval has not yet been finalized? No

Which program?

Explain the relationship and importance of the proposed course to existing programs or future programs. (A program is a certificate, major or degree.)

Human anatomy is a requirement for several health-related undergraduate degree programs, including the kinesiology, athletic training, and nursing. It is also a prerequisite for several graduate programs, including the kinesiology, physician assistant, physical therapy, and occupational therapy. Furthermore, this course could be an elective for other students interested in pursuing a degree in a health-related field.

Are any of these programs outside your academic unit?

Yes

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Nursing (692) Physical Therapy (745) Physician Assistant Program (750)

Specify which requirement(s) this course meets, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement).

This course will be a requirement for all Department of Kinesiology students pursuing a BS in Athletic Training, Exercise and Movement Science, and Physical Education Teacher Education, as well as all students pursuing a BS in Nursing.

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

Yes

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Nursing (692)

## **Course Content**

#### Describe the course content

This anatomy lecture course is designed to provide a foundation of knowledge in human anatomy while engaging students in the learning process through small-group interaction and clinical application. The course will take a regional approach, beginning with an introduction to different systems of the body followed by three sections covering different body regions: back and limbs; thorax, abdomen, and pelvis; and head and neck. Discussion of pathology and injury will be used to help understand functional anatomy, and students will apply their anatomical knowledge to clinical cases.

### Address the relationship of this course to other UW-Madison courses, including possible duplication of content

This course will be replacing the cross-listed Anatomy/Kinesiology 328 lecture course. Therefore, there will not be duplication of content. The Kinesiology 227 Introduction to Clinical Anatomy of Human Movement course is an introductory course that focuses on musculoskeletal anatomy. The new Kinesiology 328 course will cover all major body systems, with musculoskeletal content being presented in a different context and as less than 25 percent of the course material. This course will complement the proposed Kinesiology 338 Human Anatomy Laboratory course as well as the Anatomy 329 Human Anatomy-Kinesiology lab course. Kines 328 takes a conceptual and application based assessment approach compared to an identification-based assessment approach taken in the laboratory offering.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to those subjects for review.

List the instructor name and title (list multiple if applicable)

Julie Stamm, Ph.D., Associate Lecturer

If the instructor is not a tenured or tenure-track faculty member at UW-Madison, please explain the instructor's qualifications here. Then, go to the "Justifications" tab and upload the instructor's c.v. in the "Additional Attachments" section.

Dr. Stamm has her Ph.D. in Anatomy and Neurobiology from the Boston University School of Medicine. She taught the cross-listed Anat/Kines 328 this past summer (2016). She received formal instruction through coursework and practicum projects in teaching in the biomedical sciences. She has taught both anatomy and neuroscience to undergraduate students, graduate students, medical students, and dental students in both lab and lecture settings.

Attach a syllabus. See "help" for an explanation of what must be included in the syllabus.

Kines328 Syllabus.pdf

# **Justifications**

### Explain how this course contributes to strengthening your curriculum

Human anatomy was previously taught in the School of Medicine and Public Health and is currently cross-listed as Anatomy/Kinesiology 328 Human Anatomy. The course previously had insufficient capacity to serve all undergraduates who either needed to take it for their major or future programs who wanted such a learning experience in their time as UW-Madison undergraduates. According to the Office of Academic Planning and Institutional Research, dozens of students enrolled in human anatomy courses at Madison (Area Technical) College and elsewhere every year because they were closed out of the UW-Madison course. The Department of Kinesiology houses several undergraduate majors that require human anatomy, including exercise and movement science, athletic training, and physical education, making it an excellent and logical fit for housing the human anatomy lecture. Furthermore, the Department of Kinesiology has committed to offering this course every semester, including summers, in order to serve 1000 students or more annually. Finally, despite its high enrollment, we are committed to making Kinesiology 328 a blended course with interactive activities and group work in the classroom. The course will not only provide a foundation in anatomical knowledge, but also educate future clinicians and researchers on how they can apply this knowledge and use anatomical information to inform their clinical practice, research, and/or personal health.

# Provide an estimate of the expected enrollment

Approximately 800-1000 students are expected to enroll in this course annually

Justify the number of credits, following the federal definition of a credit hour (see help). Include the number of contact hours or, if contact hours are not an accurate measure of credit, provide an explanation of how credits are measured To satisfy three credits as a lecture course, this course will meet for 50 minutes three times per week over 15 weeks, for a total of 2250 minutes of class time. Students are expected to spend twice that much time with activities outside of class time.

If this is a variable credit course, provide rationale

Additional comments (optional)

Additional attachments (optional) (please read "help" before uploading an attachment)

Julie Stamm - CV 9-2016.pdf

# **Designations**

Should this course have the graduate course attribute?

No

If yes, this course:

Should the course be reviewed for L&S liberal arts and science (LAS) credit?

Yes

### What is the rationale for seeking LAS credit?

A human anatomy lecture course is required for several health-related graduate programs, including physical therapy, occupational therapy, and physician assistant as well as some medical schools. This course will serve students from L&S, such as those majoring in biology and neurobiology, who are interested in pursuing a health-related field and are either required to take this course before applying to a future program or wish to take this course to prepare for their future program.

Level of the course, for L&S attributes (value required for all L&S courses and courses requesting LAS credit) Elementary

Should the course be reviewed for L&S breadth requirements?

Yes

Indicate which:

B-Biological Science

# **General Education Designations**

Should the course be reviewed for the general education requirement?

No

Which requirements?

# KINESIOLOGY 328: Human anatomy

FALL 2016



Department of
Kinesiology, University
of Wisconsin-Madison
Monday, Wednesday,
Friday: 11:00 – 11:50
1125 Biochem Building
3 Credits

# ABOUT THE COURSE

This anatomy lecture course is designed to provide a foundation of knowledge in human anatomy while engaging students in the learning process through small-group interaction and clinical application. The course will take a regional approach, beginning with an introduction to different systems of the body followed by three sections covering different body regions: back and limbs; thorax, abdomen, and pelvis; and head and neck. Throughout the course, we will continually revisit the following themes: structure governs function and systems work together for proper function.

We will use discussion of pathology and injury to help understand functional anatomy, and we will use our knowledge of anatomy to problem solve with clinical cases. By the end of this course you should have developed a thorough understanding of the anatomy of the human body, be able to apply that knowledge to make informed decisions about your own health, and be prepared for future studies and practice as a clinician in a variety of health settings.

# **Course Instructor:**

Dr. Julie Stamm, PhD, LAT, ATC 1041 Gymnasium-Natatorium 608-262-7451. stamm3@wisc.edu

**Teaching Assistants:** 

# What's inside this syllabus?

- 1. What am I expected to learn?
- 2. What do I need to know to be successful?
- 3. How will I be assessed?
- 4. What is the course schedule?
- 5. What are the course components?





# What am I expected to learn?

By the end of Kinesiology 328: Human Anatomy, you will be able to:

- 1. Demonstrate a thorough understanding of the anatomy of the human body.
- 2. Explain how structure governs function in the human body.
- 3. Describe how systems work together in normal function.
- 4. Discuss how anatomy can contribute to dysfunction or pathology.
- 5. Use anatomical terminology in communication with people in the health field.
- 6. Describe key transformative features occurring in the human body throughout the lifespan.
- 7. Prepare to apply anatomy knowledge in future studies and practice as a clinician in a variety of health fields.
- 8. Use your knowledge of anatomy to make informed decisions about your own health.

# WHAT DO I NEED TO KNOW TO BE SUCCESSFUL?

### **Course Expectations and Learning Environment**

A key goal of this class is to teach you how to think about anatomy and apply anatomical knowledge to improve your clinical skills and/or health. In order to reach this goal, as well as the other course goals, it is critical that we be partners in learning. We want all students to be successful in this course, and we will work hard to support your success. We have prepared interactive and engaging activities for each lecture, and we will include problem solving and clinical cases to give the memorization of anatomical knowledge an application and purpose. We will be available through email, the course website, and in person to answer questions and support your learning. In return, we ask that you take responsibility for your learning, attend all lectures, actively participate in lecture activities, complete all homework assignments, and participate in optional discussions if possible.

### **Required Textbook and Online Materials**

### **Textbook**

Human Anatomy, 4th Edition McKinley, O'Loughline, Pennefather-O'Brien, Harris McGraw-Hill Education, 2012

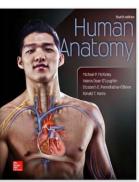
### Online Material

Connect: Anatomy and Physiology McGraw-Hill Education

\*A digital version of the textbook is included with the online material required for this course. The online program will include homework and assessments that are part of the final grade for the course.

### Other Course Material:

All announcements and additional materials, including a link to the Connect site for this course, can be found on the D2L/Learn@UW site for this course. The site will have daily course pages that include the schedule for the day, pre-class assignments, and course materials like lecture notes and PowerPoint files.





# **Grading Scale:**

A	93-100%
AB	88-92%
В	83-87%
ВС	78-82%
С	70-77%
D	60-69%
F	Below 60



# HOW WILL I BE ASSESSED?

Homework and Readings: Homework will be completed online through the course Connect site before the beginning of each class. Homework will consist of either assigned reading with a quiz to follow or reading and questions through a LearnSmart module. You will be able to take quizzes three times each, and you can use your notes. Through the LearnSmart modules you will be asked to read portions of the book and answer questions about the content until you have mastered all of the learning items. You can easily reference the eBook as you answer the questions. The goals of the homework are to provide you with a foundation of knowledge on each topic prior to the lecture and to help you stay on-track with the material in this fast-paced course. The homework will count for 20% of your overall grade.

For each date and topic, pre-class reading and homework assignments as well as objectives, optional readings, and class materials can be found on the corresponding daily page on the course Learn@UW site. An example of the course daily page can be found at the end of this syllabus.

**Exams:** There will be four exams in this course, one for each unit. Each unit exam counts for 20% of your overall grade. The exams will be taken during the class period. Exams will be multiple choice, and many questions will emphasize application of anatomical knowledge in everyday life and clinical situations.

# **Core Course Concepts**

- 1. Structure governs function.
- 2. Everything works together.
- 3. Anatomical variation is very common.
- 4. Anatomical terminology is the common language of medical sciences.
- 5. Normal changes occur in our human anatomy throughout life, from embryological origin to old age.
- 6. Sometimes what's optimal for normal function can also facilitate pathology.
- 7. Knowledge of anatomy will help you make reason through anatomical and clinical questions (e.g. how would I test this, what might be the function of the structure?
- 8. Knowledge of anatomy will help you problem solve in the healthcare setting (e.g. clinical diagnosis, research, personal health).



# WHAT IS THE COURSE SCHEDULE?

	Monday	Wednesday	Friday
Week 1		September 7 Course Intro Intro to Anatomy	September 9 Tissues
Week 2	September 12 Cartilage & Bone	September 14 Nervous System	September 16 Spinal Cord
Week 3	September 19 Integumentary System & Somatosensation	September 21 Muscle Tissue	September 23 Circulatory System Blood
Week 4	September 26 Lymphatic System Endocrine System	September 28 Human Development & Anatomy through the Lifespan	September 30 EXAM 1
Week 5	October 3 Intro to Back and Limbs Articulations *Intro to Radiology (Online)	October 5 Vertebral Column Back Musculature Pectoral Region & Shoulder	October 7 Pectoral Region & Shoulde
Week 6	October 10 Brachial Plexus	October 12 Arm, Forearm, Wrist, & Hand	October 14 Arm, Forearm, Wrist, & Hand
Week 7	October 17 Hip, Glute	October 19 Thigh and Knee	October 21 Leg & Foot
Week 8	October 24 EXAM 2	October 26 Trunk Wall	October 28 Autonomics of TAP
Week 9	October 31 Respiratory System	November 2 Heart and Great Vessels	November 4 Thoracic Cavity Organization
Week 10	November 7 Pelvis & Perineum Digestive System	November 9 Digestive System	November 22 Urinary System
Week 11	November 14 Female Reproductive System	November 16 Male Reproductive System	November 18 EXAM 3

Schedule continues on the following page...

<sup>\*</sup>Pre-class readings, homework assignments, and additional optional readings for each date/topic can be found on the corresponding daily page on the course Learn@UW site. An example of the course daily page can be found at the end of this syllabus.

# Schedule cont.

Week 12	November 21 Intro to Head & Neck Pharynx & Larynx	November 23 Fascia & Triangles of Head & Neck	November 25 THANKSGIVING RECESS – NO CLASS
Week 13	November 28 Brain	November 30 Brain	December 2 Cranial Nerves Autonomics of Head and Neck
Week 14	December 5 Skull, Scalp & Face	December 7 Orbit, Eye & Vision	December 9 Visual pathways
Week 15	December 12 Nasal Cavity & Smell Hearing & Vestibulation	December 14 Oral Cavity & Taste	December 16 STUDY DAY – NO CLASS FINAL EXAM 12/21 2:45

# WHAT ARE THE CORE COMPONENTS?

WHAT ARE THE CORE COMPONENTS!		
Learn@UW Resources & Pre- Class Assignments on Connect Purpose: To serve as the organizational hub for all activities in the course, link to Connect for pre-class assignments, and prepare for in-person class sessions.	To support your success, Anatomy instructor/TAs will: provide resources and links to course orientation materials, post learning pages that delineate what is happening on each day.	To be successful, you will: check the Learn@UW daily, complete the assigned activities in advance of the in-person sessions, and post questions on Piazza.
In-person class sessions Purpose: To build upon pre-class assignments, interact as a whole class to engage with key anatomy concepts, clear up misconceptions, and make connections across topics.	To support your success, Anatomy instructor/TAs will: focus on the big concepts, foster connections between pre-class assignments and information presented during class, work through sticking points, misconceptions, and common challenges utilizing a variety of teaching and learning methods.	To be successful, you will: attend and engage in all sessions and actively participate in the in-class activities. Complete necessary assignments before each session and be sure to let us know if you do not understand a concept or have a question.
Exams Purpose: To evaluate the state of your understanding of human anatomy.	To support your success, Anatomy instructor/TAs will: Answer questions on Piazza and write exams that are fair and accurately reflect the content.	To be successful, you will: Keep up with the daily materials and prepare for the exam by reviewing materials and assessing knowledge from learning objectives.

### **Course Policies**

Statement on Academic Honesty: The Board of Regents, administrators, faculty, academic staff and students of the University of Wisconsin System believe that academic honesty and integrity are fundamental to the mission of higher education and of the University of Wisconsin System. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions. For more information, students are encouraged to visit the UW-Madison Dean of Students page on Academic Integrity: http://www.students.wisc.edu/doso/academic-integrity/.

Accommodation Statement: Please let me know if you are in need of any special accommodations in the instruction or assessments in this course so that you may participate fully. I will do my best to keep any information you share confidential. Students with questions about accommodations or assessment for learning difficulties can find more information at the McBurney Resource Center: http://mcburney.wisc.edu/services/.



# TIPS

- Review all of the course orientation materials by the first day of class.
- Complete the pre-class assignments to stay on track.
- Come to class prepared to work.
- Ask questions when you don't understand.
- Team up with other students to learn.
- Attend optional discussion sections.
- Join a peer-led study group, facilitated by former students who excelled in the course.
- Study along the way.

Example Learn@UW Daily Page: Each day of class has a corresponding daily page on the Learn@UW course site. The daily page contains a brief summary of what will be covered that day, learning objectives for the topic(s) covered, pre-class readings and homework assignments (as described in the "Homework and Readings" section on page 3 of this syllabus), optional readings and materials, and lecture materials.

# Unit 1: Intro to Anatomy

# September 14

Nervous System

Today we will be introduced to the basic make up of the nervous system.



# Objectives

Upon completion, you will be able to:

- 1. Describe the divisions of the nervous system and their functions.
- 2. Identify the different types of neurons and glial cells and their functions.
- 3. Understand how neurons communicate with each other.
- 4. Understand the process of axonal regeneration and apply that knowledge to nervous system disorders and diseases.

# 晃 Pre-Class Homework: Connect

Click on Connect in the top navigation bar.

- 1. Complete the LearnSmart Module "LS Sept 14: Nervous Tissue"
  - Covers sections 14.1 Organization of the Nervous System, 14.2 Cytology of the Nervous Tissue, and 14.5 Nerves
  - o NOTE: You should know the following terms from the Neuron Structure section of 14.2 that we will not be covering in class: Cell body/soma, dendrites, axon, axon hillock, and axon collaterals.

# Optional Readings and Materials

- · Section 14.3 Myelination of Axons
- Section 14.4 Axon Regeneration
- · Section 14.6 Synapses
- Section 14.7 Neural Integration and Neuronal Pools
- Glickstein 2006 Golgi and Cajal: The neuron doctrine and the 100th anniversary of the 1906 Nobel Prize
  - o Gives some interesting history about advancements in our understanding of the nervous system

# 🗏 Lecture Materials

- · Powerpoint Slides
  - Nervous System
    - One per page
    - Two per page
- Study Guide
  - Nervous System
- List of Terms
  - Nervous System

# Curriculum Vitae Julie M. Stamm, Ph.D., ATC

Department of Radiology School of Medicine and Public Health University of Wisconsin-Madison 1111 S. Highland Ave. Madison, WI 53705 Phone: (715) 573-5626

Email: stamm3@wisc.edu

### **EDUCATION:**

2010 University of Wisconsin - Madison

Bachelor of Science, Major: Kinesiology (Athletic Training)

2015 Boston University School of Medicine

Ph.D., Anatomy and Neurobiology

# ADDITIONAL TRAINING

2015-2016 Post-Doctoral Research Associate, Prabhakaran Lab, Department of

Radiology, University of Wisconsin-Madison Principal Investigator Dr. Vivek Prabhakaran

### **ACADEMIC APPOINTMENTS:**

2016-Present Associate Lecturer, Department of Kinesiology, School of Education, University of Wisconsin-Madison

### **HONORS:**

2008	Athletic Training Education Program Alumni and Friends Scholarship, Athletic Training Department, University of Wisconsin, Madison, WI
2008	Helen Pfuderer Smith Kinesiology Scholarship, Department of Kinesiology, University of Wisconsin, Madison, WI
2009	Jan Helwig Athletic Training Scholarship, Athletic Training Department, University of Wisconsin, Madison, WI
2010	Tasha E. Bolton Award for the Most Outstanding Athletic Training Student, Athletic Training Department, University of Wisconsin, Madison, WI
2012	Ruth L. Kirschstein National Research Service Award Predoctoral Fellowship (F31), NIH, NINDS
2014	Poster award finalist, American Association of Anatomists Student Education Research Poster Award, American Association of Anatomists, Annual Meeting, Experimental Biology, San Diego, CA
2016	2015 Clint Thompson Award for Clinical Practice Advancement, Journal of Athletic Training, National Athletic Trainers' Association. Awarded for the publication "Pressure on Sports Medicine Clinicians to Prematurely Return Collegiate Athletes to Play after Concussion," authors Kroshus, E., Baugh, C.M., Daneshvar, D.H., Stamm, J.M., Laursen, R.M., Austin, S.B.

### **CERTIFICATION AND LICENSURE:**

2010, 2015-Present Licensed Athletic Trainer, State of Wisconsin 2010-2015 Licensed Athletic Trainer, State of Massachusetts

2010-Present NATABOC Athletic Training Certification

2007-Present American Red Cross CPR/AED for Professional Rescuers

## TEACHING EXPERIENCE AND RESPONSIBILITIES

University of Wisconsin-Madison

2008-2009 Anatomy 329 Human Anatomy Lab

Fall Undergraduate Student Peer Laboratory Teaching Assistant

Semester Undergraduate Students

Boston University School of Medicine

2012 AN701 Gross Anatomy, Back and Limbs Section

Fall Teaching Assistant Semester Medical Students

2012 AN701 Gross Anatomy, Head and Neck Section

Fall Teaching Assistant Semester Medical Students

2012-2013 AN703 Medical Neuroscience

Winter Teaching Assistant Course Medical Students

2013-2015 AN703 Medical Neuroscience

Winter Laboratory Instructor Course Medical Students

\*Completed a practicum in 2014 during which I assisted with redesigning the laboratory

portion of the course.

Boston University School of Dental Medicine
2014 MD511 Anatomical Sciences II

Spring Teaching Assistant
Semester Dental Students

University of Wisconsin-Madison

2016-Present KINES 328 Human Anatomy Lecture

Year-round Associate Lecturer, Undergraduate Students

### **INVITED LECTURES**

2012 Functional Neuroanatomy, PSY 335 How the Brain Works: An Introduction

to Neuropsychology, Boston University, Undergraduate Course

2013 Chronic Traumatic Encephalopathy, EKIN 3165W Current Research and

Issues in Athletic Training, University of Connecticut, Undergraduate Course

# **INVITED LECTURES (CONTINUED)**

2013	Chronic Traumatic Encephalopathy, EKIN 5533 Current Research and Issues in Athletic Training, University of Connecticut, Graduate Course
2013, 2014	Long-Term Consequences of Concussive and Subconcussive Brain Trauma, HP 412 Abnormal Behavior in Rehabilitation, Boston University, Undergraduate and Graduate Course
2013	The Knee: Anatomy and Clinical Evaluation, Continuing Medical Education, Primary Care Providers, Boston University Student Health Services
2013	The Shoulder: Anatomy & Clinical Evaluation, Continuing Medical Education Primary Care Providers, Boston University Student Health Services
2014	Relationship Between Playing Tackle Football Prior to Age 12 and Later- Life Mood, Behavior, and Executive Function, Anatomy and Neurobiology Department Seminar, Boston University School of Medicine
2015	Later-Life Consequences of Concussive and Subconcussive Brain Trauma, Kinesiology Department Seminar, University of Wisconsin-Madison
2015	Concussion Management, Pressures on Clinicians, and Long-Term Consequences of Repeated Head Impacts, AT499 Seminar in Athletic Training, University of Wisconsin-Madison
2015	Chronic Traumatic Encephalopathy and the Later-Life Consequences of Early Life Repeated Head Impacts, KINES 508 Functional Neuroanatomy, University of Wisconsin-Madison
2016	Chronic Traumatic Encephalopathy and the Later-Life Consequences of Early-Life Repeated Head Impacts. KINES 350 Introduction to Exercise Psychology, University of Wisconsin-Madison
2016	Chronic Traumatic Encephalopathy and the Later-Life Consequences of Early-Life Repeated Head Impacts. Recent Advances in Biology Lecture Series, Lawrence University, Appleton, WI.

# **CLINICAL EXPERIENCE:**

2010-2011 Athletic Trainer, Graduate Assistant, Boston University Athletic Training

# ADDITIONAL RESEARCH EXPERIENCE:

2009-2010	Research Intern, UW Health Sports Medicine, Madison, WI
2011	Research Intern, Center for the Study of Traumatic Encephalopathy, Boston University School of Medicine
2011-2015	Doctoral Student, Chronic Traumatic Encephalopathy Center, Alzheimer's Disease Center, Boston University School of Medicine Principal Investigator Dr. Robert Stern
2011-2015	Doctoral Student, Psychiatry Neuroimaging Laboratory, Harvard University Medical School, Brigham and Women's Hospital Principal Investigator Dr. Martha Shenton

### **COMPLETED RESEARCH SUPPORT:**

2013-2015 F31NS081957, PI: J. M. Stamm, Frontal Lobe Neuroimaging as a Biomarker of Chronic Traumatic Encephalopathy, Predoctoral Research Fellowship Award, Total Direct Costs: \$111,924.00

## **PUBLICATIONS:**

- Young, B.M., **Stamm, J.M.**, Song, J., Remsik, A., Nair, V.A., Tyler, M.E., Edwards, D.F., Caldera, K., Sattin, J.A., Williams, J.C., Prabhakaran, V. Patterns of Brain-Behavior Relationships in Corticospinal and Transcallosal Motor Fibers with and without Brain-Computer Interface Therapy after Stroke. *Frontiers in Human Neuroscience*. (In Press).
- La, C., Mossahebi, P., Nair, V.A., Young, B.M., **Stamm, J.M.**, Birn, R., Meyerand, M.E., Prabhakaran, V. (2016). Differing Patterns of Altered Slow-5 Oscillations in Healthy Aging and Ischemic Stroke. *Frontiers in Human Neuroscience*. 10(156).
- La, C., Nair, V.A., Mossahebi, P., **Stamm, J.M.**, Birn, R., Meyerand, E.M., Prabhakaran, V. Recovery of Slow-5 Oscillations in a Longitudinal Study of Ischemic Stroke Patients. *Neuroimage Clinical*. 11, 398-407.
- Corp, D., Pascual-Leone, A., Di Lazzaro, V., **Stamm, J.M.,** Fried, P., & Pearce, A.J. Intracortical facilitation is dependent on conditioning stimulus intensity in a hand muscle representation of the human motor cortex. (Under Review).
- Baugh, C.M., Kroshus, E., **Stamm, J.M.**, Daneshvar, D.H., Pepin, M., Meehan, WP III. Current practices in collegiate concussion management. (2016) *American Journal of Sports Medicine*. Epub ahead of print.
- Koerte, I.K., Hufschmidt, J., Muehlmann, M., Tripodis, Y., Stamm, J.M., Pasternak, O.,
  Giwerc, M.Y., Coleman, M.J., Baugh, C.M., Fritts, N.F., Heinen, F., Lin, A., Stern,
  R.A., Shenton, M.E. (2015) Cavum Septum Pellucidi in Symptomatic Former
  Professional Football Players. *Journal of Neurotrauma*. 33(4):346-353.
- **Stamm, J.M.**, Koerte, I.K., Muehlmann, M., Pasternak, O., Bourlas, A.P., Baugh, C.M., Giwerc, M.Y., Zhu, A., Coleman, M.J., Bouix, S., Fritts, N.G., Martin, B.M., Chaisson, C., McClean, M.D., Lin, A.P., Cantu, R.C., Tripodis, Y., Stern, R.A., & Shenton, M.E. (2015) Age at First Exposure to Football is Associated with Altered Corpus Callosum White Matter Microstructure in Former Professional Football Players. *Journal of Neurotrauma*, 32(22):1768-1776.
- Kroshus, E., Baugh, C.M., Daneshvar, D.H., **Stamm, J.M.**, Laursen, R.M., & Austin, S.B. (2015) Pressure on sports medicine clinicians to prematurely return collegiate athletes to play after concussion. *Journal of Athletic Training*, 50(9):944-951.
- **Stamm, J.M.**, Bourlas, A.P., Baugh, C.M. Fritts, N.G., Daneshvar, D.H., Martin, B.M., McClean, M.D., Tripodis, Y., & Stern, R.A. (2015) Age of First Exposure to Football and Later-Life Cognitive Impairment in Former NFL Players. *Neurology*, 84(11):1114-1120.

# **PUBLICATIONS (CONTINUED):**

- Stern, R.A., Daneshvar, D.H., Baugh, C.M., Seichepine, D.R., Montenigro, P.H., Riley, D.O., Fritts, N.G., **Stamm, J.M.**, Robbins, C.A., McHale, L., Simkin, I., Stein, T.D., Alvarez, V.E., Goldstein, L.E., Budson, A.E., Kowall, N.W., Nowinski, C.J., Cantu, R.C., McKee, A.C. (2013) Clinical presentation of chronic traumatic encephalopathy. *Neurology*, 81(13):1122-9.
- Seichepine, D.R., **Stamm, J.M.**, Daneshvar, D.H., Riley, D.O., Baugh, C.M., Gavett, B.E., Tripodis, Y., Martin, B., Chaisson, C., McKee, A.C., Cantu, R.C., Nowinski, C.J., & Stern, R.A. (2013). Profile of self-reported problems with executive functioning in college and professional football players. *Journal of Neurotrauma*, 30(14):1299-304.
- Baugh, C.B., **Stamm, J.M**., Riley, D.O., Gavett, B.E., Shenton, M.E., Lin, A., Nowinski, C.J., Cantu, R.C., McKee, A.C., & Stern, R. A. (2012). Chronic traumatic encephalopathy: neurodegeneration following repetitive concussive and subconcussive brain trauma. *Brain Imaging and Behavior*, 6(2):244-54.

## **PRESENTATIONS:**

- Stamm J.M. Later-Life Structural and Functional Consequences of Youth Exposure to Repeated Head Impacts. 39<sup>th</sup> Annual University of Wisconsin Sports Medicine Symposium, University of Wisconsin Sports Medicine and University of Wisconsin School of Medicine and Public Health, Madison, WI. May 5, 2016.
- **Stamm, J.M.** Later-Life Structural and Functional Consequences of Youth Exposure to Repeated Head Impacts. *3<sup>rd</sup> Biannual Alumni and Friends Symposium,* University of Wisconsin-Madison Athletic Training Education Program, Madison, WI. February 20, 2016.
- Koerte, I.K., Shenton, M.E., Lin, A.P., **Stamm, J.M**., Kaurfmann, D., Mayinger, M., Helmer, K., Pasternak, O., Muehlmann, M., Zafonte, R. Neuroimaging in Sports-Related Traumatic Brain Injury What We Know and What We Don't Know. Presentation at the American Academy of Physical Medicine and Rehabilitation 2015, Boston., Massachusetts. October, 2015.
- Baugh, C.M., Kroshus, E., **Stamm, J.M.**, Daneshvar, D.H., Memmini, A., Meehan, W.P. Current Practices in Collegiate Concussion Management. Presentation at the National Athletic Training Association Clinical Symposia and Athletic Training Expo, St. Louis, Missouri. June 26, 2015.
- **Stamm, J.M.** & Zumwalt, A. An anatomical approach to teaching the clinical evaluation of musculoskeletal injuries to primary care providers. Poster Presentation at the *John McCahan Medical Campus Education Day*, Boston University School of Medicine, Boston, MA. May 22, 2014.
- **Stamm, J.M.**, Bourlas, A.P., Baugh, C.B., Daneshvar, D.H., Breaud, A.H., Robbins, C.A., Riley, D.O., Martin, B.M., McClean, M.D., Au, R., Gioia, G., Ozonoff, A., McKee, A.C., Nowinski, C.J., Cantu, R.C., Tripodis, Y., & Stern, R.A. Relationship Between Age of First Exposure to Tackle Football and Later-Life Mood, Behavior, and Executive Function. Poster Presentation at the *Henry I. Russek Student Achievement Day*, Boston University School of Medicine, Boston, Massachusetts. May 2, 2014.

### PRESENTATIONS (CONTINUED):

- **Stamm, J.M.** & Zumwalt, A. An anatomical approach to teaching the clinical evaluation of musculoskeletal injuries to primary care providers. Poster Presentation at the *American Association of Anatomists Annual Meeting, Experimental Biology*, San Diego, California. April 27, 2014.
- Bourlas, A.P., **Stamm, J.M.\***, Baugh, C.B., Daneshvar, D.H., Breaud, A.H., Robbins, C.A., Riley, D.O., Martin, B.M., McClean, M.D., Au, R., Gioia, G., Ozonoff, A., McKee, A.C., Nowinski, C.J., Cantu, R.C., Tripodis, Y., & Stern, R.A. Relationship Between Age of First Exposure to Tackle Football and Later-Life Mood, Behavior, and Executive Function. Oral Presentation at the *International Brain Injury Association Tenth World Congress on Brain Injury*, San Francisco, California. March 20, 2014. \***Presenting Author**
- Koerte, I.K., Mayinger, M., Green, K., Giwerc, M., Dahlben, B., Fredman, E., Eckbo, R.,
  Stamm, J.M., Baugh, C.M., Makris, N. Lin, A., Pasternak, O., Rathi, Y., Stern,
  R.A., & Shenton, M.E. White matter microstructure and cortical thickness in former
  NFL players. Oral Presentation at the *Tenth World Congress on Brain Injury*, San
  Francisco, California. March 19-22, 2014.
- Shenton, M.E., Koerte, I.K., Bouix, S., Pasternak, O., Lin, A.P., Mayinger, M., Coleman, M., Dahlben, B., Giwerc, M., Green, K., **Stamm, J.M**., Helmer, K., Zafonte, R., & Stern, R.A. Advanced Neuroimaging in CE and Repetitive Concussive and Subconcussive Head Trauma. Invited Symposium on Chronic Traumatic Encephalopathy at the *International Brain Injury Association Tenth World Congress on Brain Injury*, San Francisco, California. March 20, 2014.
- Stamm, J.M, Seichepine, D.R., Daneshvar, D., Riley, D.O., Baugh, C.B., Gavett, B., Tripodis, Y., Martin, B.M., Chaisson, C., McKee, A.C., Cantu, R.C., Nowinski, C.J., & Stern, R.A. Profile of Executive Dysfunction in Former College and Professional Football Players with a History of Repetitive Brain Trauma. Poster Presentation at the Henry I. Russek Student Achievement Day, Boston University School of Medicine, Boston, Massachusetts. May 10, 2013
- Seichepine, D.R., **Stamm, J.M**., Riley, D., Baugh, C., Daneshvar, D., & Stern, R.A. (2012). Profile of Executive Dysfunction in Former Professional Football Players with Exposure to Repetitive Concussive and Subconcussive Brain Trauma. Oral Presentation at the *Military Health System Research Symposium*, Ft. Lauderdale, Florida. August 13-16, 2012.

## **PUBLISHED ABSTRACTS:**

- La, C., Nair, V., Mossahebi, P., **Stamm, J.M.**, Birn, R., Meyerand, M.E., Prabhakaran, V. Recovery of Slow-5 Oscillations in a Longitudinal Study of Ischemic Stroke Patients. Abstract. Stroke. (2016) 47(Suppl 1):ATP154- ATP154
- Young, B.M., **Stamm, J.M.**, Song, J., Remsik, A., Nair, V.A., Tyler, M.E., Edwards, D.F., Caldera, K., Sattin, J.A., Williams, J.C., Prabhakaran, V. Brain-computer Interface Therapy for Upper Extremity Stroke Rehabilitation Induces Corticospinal Tract Changes that Track with Individual Behavioral Gains. (2016) 47(Suppl 1):ATMP25-ATMP25

# **PUBLISHED ABSTRACTS (CONTINUED):**

- Bourlas, A.P., **Stamm, J.M.,** Baugh, C.B., Daneshvar, D.H., Breaud, A.H., Robbins, C.A., Riley, D.O., Martin, B.M., McClean, M.D., Au, R., Gioia, G., Ozonoff, A., McKee, A.C., Nowinski, C.J., Cantu, R.C., Tripodis, Y., & Stern, R.A. Relationship Between Age of First Exposure to Tackle Football and Later-Life Mood, Behavior, and Cognition. Abstract. *Brain Injury*. (2014) Brain Inj 28, 517-878
- Koerte, I.K., Mayinger, M., Green, K., Giwerc, M., Dahlben, B., Fredman, E., Eckbo, R., **Stamm, J.M**., Baugh, C.M., Makris, N. Lin, A., Pasternak, O., Rathi, Y., Stern, R.A., & Shenton, M.E. White matter microstructure and cortical thickness in former NFL players. Abstract. *Brain Injury*. (2014) Brain Inj 28, 517-878

## PROFESSIONAL SOCIETIES:

2007-Present National Athletic Trainers Association 2012-Present American Association of Anatomists

# **New Course Proposal**

**Subject** Kinesiology (742) **Proposer** Julie Marie Stamm Status Under Review by Subject Owner

# **Basic Information**

What is the primary divisional affiliation of this course?

Interdivisional

### **Course Title**

Human Anatomy Laboratory

**Transcript Title (limit 30 characters)** 

Human Anatomy Laboratory

Three-digit course number

338

Is this an honors course?

No

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

No

Will this course be crosslisted?

No

Note the crosslisted subjects

Is this a topics course?

No

Can students enroll in this course more than once for credit?

No

If yes, please justify

**Typically Offered** 

Fall, Spring, Summer

## **Catalog Information**

Minimum credits

2

**Maximum credits** 

2

## **Grading System**

A-F

## **Course Description (will be published in Course Guide)**

Takes a regional approach to cover the gross anatomy of the human body in four units: introduction to anatomical systems; back and limbs; thorax, abdomen, and pelvis; and head and neck. A variety of tools, including interactive software, models, and specimens, will be used.

Does the course have prerequisites or other requirements?

Yes

List the prerequisites and other requirements for the course

Kinesiology 328 or concurrent registration (preferred).

Indicate the component(s) that comprise the course. Check all that apply *Laboratory* 

## **Administrative Information**

**Chief Academic Officer** 

Gary M Diffee

Designee of chief academic officer for approval authority

Zoe Elizabeth Hurley

If there are additional contacts, please list

Will any courses be discontinued as a result of this proposal?

No

List course number(s) and complete a course discontinuation proposal for each course

**Beginning Term** 

Fall 2017-2018

## **Academic/Program Information**

Is this course intended for a new academic program for which UAPC approval has not yet been finalized? No

Which program?

Explain the relationship and importance of the proposed course to existing programs or future programs. (A program is a certificate, major or degree.)

Human Anatomy Laboratory is a requirement for several undergraduate degree programs, including the kinesiology, athletic training, and physical education. An anatomy laboratory course is also a prerequisite for the physical therapy program here at UW-Madison as well as various graduate programs, including kinesiology, physician assistant, physical therapy, occupational therapy, and nursing, at other universities. Furthermore, this course is an elective for other students interested in pursuing a degree in a health-related field.

Are any of these programs outside your academic unit?

Yes

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Physical Therapy (745)

Specify which requirement(s) this course meets, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement).

Human Anatomy Laboratory will be a requirement for all Department of Kinesiology students pursuing a BS in Athletic Training, Exercise and Movement Science, and Physical Education Teacher Education.

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

## **Course Content**

#### Describe the course content

This anatomy lab course is designed to provide a foundation of knowledge in human anatomy and identification of anatomical structure through engaging activities and clinical application. The course will take a regional approach, beginning with a brief introduction to histology, radiology, and body systems followed by three sections covering different body regions: back and limbs; thorax, abdomen, and pelvis; and head and neck. We will use virtual dissection software, hands-on activities, models, and palpation to help understand structural and functional anatomy, and we will apply this information with case studies of injury and pathology. We will also utilize videos of procedures and interviews with clinicians and researchers to demonstrate how anatomy is utilized in practice.

## Address the relationship of this course to other UW-Madison courses, including possible duplication of content

This course will complement the proposed Kinesiology 328 Human Anatomy lecture course. The Kines 338 Human Anatomy Laboratory course will emphasize a 3 dimensional visual and physical understanding of anatomy that will build upon the conceptual understanding emphasized in the Kines 328 lecture course. Kines 338 will focus on identification of structures and include hands-on interaction with models and specimens, palpation of surface anatomy, and visual identification through online dissection software and atlases. Assessment for this course will involve identification of structures over general anatomical concepts. Content will be presented in a similar order between Kines 328 and 338, which may be beneficial to students taking both courses concurrently. The School of Medicine and Public Health reserves the right to offer the Anatomy 329 Human Anatomy-Kinesiology cadaver-based lab course, and our content will overlap. Importantly, Kines 338 Human Anatomy Laboratory will be able to meet the high demand for the course and serve a large number of students annually that cannot be served by Anatomy 329. This course was created at the request of the Provost's office to address this high demand for an anatomy lab course for undergraduate students. The overlap in content will allow this course to meet the needs of students who would have previously taken Anatomy 329.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to those subjects for review.

List the instructor name and title (list multiple if applicable)

Julie M. Stamm, Ph.D., Associate Lecturer

If the instructor is not a tenured or tenure-track faculty member at UW-Madison, please explain the instructor's qualifications here. Then, go to the "Justifications" tab and upload the instructor's c.v. in the "Additional Attachments" section.

Dr. Stamm has her Ph.D. in Anatomy and Neurobiology from the Boston University School of Medicine. She taught the cross-listed Anat/Kines 328 this past summer (2016). She received formal instruction through coursework and practicum projects in teaching in the biomedical sciences. She has taught both anatomy and neuroscience to undergraduate students, graduate students, medical students, and dental students in both lab and lecture settings.

Attach a syllabus. See "help" for an explanation of what must be included in the syllabus.

Kines\_338\_lab\_syllabus.pdf

## **Justifications**

## Explain how this course contributes to strengthening your curriculum

The human anatomy laboratory course taught in the School of Medicine and Public Health has insufficient capacity to serve all undergraduates who either needed to take it for their major or future programs or those who wanted such a learning experience in their time as UW-Madison undergraduates. According to the Office of Academic Planning and Institutional Research, dozens of students enrolled in human anatomy courses at Madison (Area Technical) College and elsewhere every year because they were closed out of the UW-Madison course. The Department of Kinesiology houses several undergraduate majors that require an anatomy laboratory course, including exercise and movement science, athletic training, and physical education, making it an excellent and logical fit for housing the human anatomy lab. Furthermore, the Department of Kinesiology has committed to offering this course every semester, including summers, in order to serve up to 500 students per year (double the previous capacity). We are committed to making Kinesiology 338 a blended laboratory course with interactive activities, hands-on experience, and group work in the classroom. The course will not only provide a foundation of knowledge in anatomical structure, but also educate future clinicians and researchers on how they can apply this knowledge and use anatomical information to inform their clinical practice, research, and/or personal health.

## Provide an estimate of the expected enrollment

300-500 students

Justify the number of credits, following the federal definition of a credit hour (see help). Include the number of contact hours or, if contact hours are not an accurate measure of credit, provide an explanation of how credits are measured To satisfy two credits as a laboratory course, Kines 338 Human Anatomy Laboratory will meet twice per week for two hours each day over 15 weeks.

If this is a variable credit course, provide rationale

Additional comments (optional)

Additional attachments (optional) (please read "help" before uploading an attachment)

Julie Stamm - CV 9-2016.pdf

## **Designations**

Should this course have the graduate course attribute?

No

If yes, this course:

Should the course be reviewed for L&S liberal arts and science (LAS) credit?

Yes

## What is the rationale for seeking LAS credit?

A human anatomy lecture course is required for several health related graduate programs, including physical therapy, occupational therapy, nursing, and physician assistant as well as some medical schools. This course will serve students from L&S, such as those majoring in biology and neurobiology, who are interested in pursuing a health-related field and are either required to take this course before applying to a future program or wish to take this course to prepare for their future program.

Level of the course, for L&S attributes (value required for all L&S courses and courses requesting LAS credit) Elementary

Should the course be reviewed for L&S breadth requirements?

Yes

Indicate which:

B-Biological Science

## **General Education Designations**

Should the course be reviewed for the general education requirement?

No

Which requirements?

## DRAFT

# KINESIOLOGY 338: Human anatomy laboratory

SPRING 2017



Department of
Kinesiology, University
of Wisconsin-Madison
Tuesday, Thursday:
8:00 – 9:40
2 credits

## ABOUT THE COURSE

This anatomy lab course is designed to provide a foundation of knowledge in human anatomy and identification of anatomical structure through engaging activities and clinical application. The course will take a regional approach, beginning with a brief introduction to histology, radiology, and body systems followed by three sections covering different body regions: back and limbs; thorax, abdomen, and pelvis; and head and neck. The following themes will be emphasized throughout the course: structure governs function and systems work together for proper function.

We will use virtual dissection programs, hands on-activities, models, and palpation to help understand structural and functional anatomy, and we will apply this information with case studies of injury and pathology. We will also utilize videos of procedures and interviews with clinicians to demonstrate how anatomy is utilized in practice. By the end of this course you should have developed a thorough understanding of the anatomy of the human body, be able to apply that knowledge to make informed decisions about your own health, and be prepared for future studies and practice as a clinician in a variety of health settings.

## Course Instructor: Dr. Julie Stamm, PhD, LAT, ATC 1041 Gymnasium-Natatorium 608-262-7451. stamm3@wisc.edu



## What's inside this syllabus?

- 1. What am I expected to learn?
- 2. What do I need to know to be successful?
- 3. How will I be assessed?
- 4. What is the course schedule?
- 5. What are the course components?





# What am I expected to learn?

By the end of Kinesiology 338: Human Anatomy, you will be able to:

- 1. Identify key structures of the human body, including muscles, organs, and bones.
- 2. Identify characteristics of certain structures of the body and explain how explain how structure governs function.
- 3. Explain how systems work together in normal function.
- 4. Demonstrate how anatomy can contribute to dysfunction or pathology.
- 5. Use anatomical terminology in communication with others in the health field.
- 6. Prepare to apply anatomy knowledge and identification skills in future studies and practice as a clinician in a variety of health fields.
- 7. Use your knowledge of anatomy to make informed decisions about your own health.



# WHAT DO I NEED TO KNOW TO BE SUCCESSFUL?

## **Course Expectations and Learning Environment**

A key goal of this class is to teach you how to think about anatomy and apply anatomical knowledge to improve your clinical skills and/or health. In order to reach this goal, as well as the other course goals, it is critical that we be partners in learning. We want all students to be successful in this course, and we will work hard to support your success. We have prepared interactive and engaging activities for each lab, including hands-on demonstrations, palpation, study of models, and clinical cases. We will be available through open lab hours, email, the course website, and in-person meetings to answer questions and support your learning. In return, we ask that you take responsibility for your learning, attend all lab sections, actively participate in all lab activities, and complete all homework assignments.

## **Required Textbook and Online Materials**

#### Lab Manual

Prepared by the course instructor Available on the course D2L/Learn@UW page

#### **Online Material**

Anatomy and Physiology Revealed McGraw-Hill Education

## **Other Course Material:**

All announcements and additional materials, including a link to the Connect site for this course, can be found on the D2L/Learn@UW site for this course. The site will have daily course pages that include the schedule for the day, pre-class assignments, and course materials (e.g. course notes and PowerPoint files).



## **Grading Scale:**

A	93-100%
AB	88-92%
В	83-87%
ВС	78-82%
С	70-77%
D	60-69%
F	Below 60

#### TIPS

- Review all of the course orientation materials by the first day of lab.
- 2. Complete the pre-lab assignments.
- 3. Come to lab prepared to work.
- 4. Ask questions when you don't understand.
- 5. Team up with other students to learn.
- Attend open lab hours to review with lab materials and have questions answered by TAs.
- 7. Study along the way.

## HOW WILL I BE ASSESSED?

Homework and Readings: Homework will be completed using the course Learn@UW site, the Anatomy and Physiology Revealed program, and assignments in the course lab manual. Prior to class, you will complete lab assignments consisting of identification of relevant structures indicated in the laboratory manual using the online Anatomy and Physiology Revealed program. You will then complete an online quiz on the Learn@UW page. Homework will be worth 20% of your overall grade.

For each date and topic, pre-lab assignments and corresponding laboratory manual pages, as well as optional, supplemental readings, and class materials can be found on the corresponding daily page on the course Learn@UW site. An example of the course daily page can be found at the end of this syllabus.

**Exams:** There will be four exams in this course, one for each unit. Each unit exam counts for 20% of your overall grade. The exams will be taken during the lab period and will consist of identification-based questions with virtual images, models, and palpation.

## **Core Course Concepts**

- 1. Structure governs function.
- 2. Everything works together.
- 3. Anatomical variation is very common.
- 4. Anatomical terminology is the common language of medical sciences.
- 5. Normal changes occur in our human anatomy throughout life, from embryological origin to old age.
- 6. Sometimes what's optimal for normal function can also facilitate pathology.
- 7. Knowledge of anatomy will help you make reason through anatomical and clinical questions (e.g. how would I test this, what might be the function of the structure?
- 8. Knowledge of anatomy will help you problem solve in the healthcare setting (e.g. clinical diagnosis, research, personal health).



# WHAT IS THE COURSE SCHEDULE?

SPRING 2017	Day 1	Day 2
Week 1	January 17 Course intro	January 19 Intro to Histology
	Intro to Anatomy	Tissues
	,	Integumentary System & Somatosensation
Week 2	January 24	January 26
	Nervous System	Intro to Radiology
	Spinal Cord	Intro to Cross-Sectional Anatomy Cartilage & Bone
Week 3	January 31	February 2
	Muscle Tissue	Exam 1
	Circulatory System and Blood	
Week 4	February 7	February 9
	Intro to Back and Limbs	Pectoral Region & Shoulder
Week 5	Vertebral Column and Back February 14	February 16
Week 5	Brachial Plexus	Arm, Forearm, Wrist, & Hand
Week 6	February 21	February 23
	Hip & Glute, Thigh	Knee
Week 7	February 28	March 2
	Leg & Foot	Exam 2
Week 8	March 7	March 9
	Trunk & Abdominal Wall Autonomics	Intro to Cross-sectional Anatomy Thoracic Cavity Organization
14/I-O		
Week 9	March 14 Respiratory System	March 16 Heart and Great Vessels
Week 10	March 21	March 23
	SPRING RECESS – NO CLASS	SPRING RECESS – NO CLASS
Week 11	March 28	March 30
	Digestive System	Urinary System
1441-42	A!! A	Pelvis & Perineum
Week 12	April 4 Reproductive System	April 6 Exam 3
Week 13	April 11	April 13
	Intro to Head & Neck	Fascia & Triangles of Head & Neck
	Pharynx & Larynx	_
Week 14	April 18	April 20
	The Brain	Cranial Nerves
Week 15	April 25	April 27
Week 16	Skull, Scalp & Face May 2	Orbit, Eye & Vision  May 4
AAEEK 10	Oral Cavity & Taste	Hearing & Vestibulation
		Nasal Cavity & Smell

<sup>\*</sup>Pre-class lab assignments and supplemental readings for each date/topic can be found on the corresponding daily page on the course Learn@UW site. An example of the course daily page can be found at the end of this syllabus.

## WHAT ARE THE CORE COMPONENTS?

Learn@UW Resources & Pre- Class Assignments Purpose: To serve as the organizational hub for all activities in the course, link to Anatomy and Physiology, and prepare for lab sessions.	To support your success, Anatomy instructor/TAs will: provide resources and links to course orientation materials and post learning pages that delineate what is happening on each day.	To be successful, you will: check the Learn@UW daily, complete the assigned activities in advance of the lab, and post questions on the Piazza discussion board.
In-person lab sessions Purpose: To build upon pre-lab assignments, have hands-on interaction with models and specimens, complete group activities to learn anatomical concepts, and clarify questions.	To support your success, Anatomy instructor/TAs will: focus on the big concepts, foster connections between pre-lab assignments and information learned during lab, work through sticking points, misconceptions, and common challenges utilizing a variety of teaching and learning methods.	To be successful, you will: attend and engage in all labs and actively participate in all activities. Complete necessary assignments before each lab and be sure to let us know if you do not understand a concept, have difficult identifying or differentiating structures, or have a question.
Exams Purpose: To evaluate the state of your understanding of human anatomical structure and function.	To support your success, Anatomy instructor/TAs will: Answer questions on Piazza and write exams that are fair and accurately reflect the content.	To be successful, you will: Keep up with the daily materials and prepare for the exam by reviewing materials and assessing knowledge from learning objectives.

#### **Course Policies**

Statement on Academic Honesty: The Board of Regents, administrators, faculty, academic staff and students of the University of Wisconsin System believe that academic honesty and integrity are fundamental to the mission of higher education and of the University of Wisconsin System. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions. For more information, students are encouraged to visit the UW-Madison Dean of Students page on Academic Integrity: http://www.students.wisc.edu/doso/academic-integrity/.

Accommodation Statement: Please let me know if you are in need of any special accommodations in the instruction or assessments in this course so that you may participate fully. I will do my best to keep any information you share confidential. Students with questions about accommodations or assessment for learning difficulties can find more information at the McBurney Resource Center: http://mcburney.wisc.edu/services/.



**Example Learn@UW Daily Page**: Each day of lab has a corresponding daily page on the Learn@UW course site. The daily page contains a brief summary of what will be covered that day, pre-lab assignments and corresponding laboratory manual pages, supplemental readings, and any relevant additional material for that day.

Unit 2: Back & Limbs

## October 21

Leg & Foot

Today we will be discussing the structure and function of the joints, bones, and muscles that comprise the leg and foot.



## Objectives

Upon completion, you will be able to:

- 1. Identify key landmarks on the bones of the leg and foot and explain their function or purpose.
- Identify and describe the joints of the leg and foot, the bones that makeup those joints, the movements possible at those joints, and any key accessory structures that are part of the joint.
- 3. Name the origins, insertions, innervation, and blood supply of the muscles that make up the leg and foot.

## ☐ Pre-Class Homework: Connect ☐

Click on Connect in the top navigation bar.

 Complete the pre-lab assignment "Leg and Foot: Bones, Joints, Muscles, and Neurovasculature" on pages 38-42 of the laboratory manual.

## Supplemental Readings

- Braver, RT 2016 Chronic Exertional Compartment Syndrome
- · Ray, RG 2016 Arthroscopic Anatomy of the Ankle Joint

# Curriculum Vitae Julie M. Stamm, Ph.D., ATC

Department of Radiology School of Medicine and Public Health University of Wisconsin-Madison 1111 S. Highland Ave. Madison, WI 53705 Phone: (715) 573-5626

Email: stamm3@wisc.edu

## **EDUCATION:**

2010 University of Wisconsin - Madison

Bachelor of Science, Major: Kinesiology (Athletic Training)

2015 Boston University School of Medicine

Ph.D., Anatomy and Neurobiology

## ADDITIONAL TRAINING

2015-2016 Post-Doctoral Research Associate, Prabhakaran Lab, Department of

Radiology, University of Wisconsin-Madison Principal Investigator Dr. Vivek Prabhakaran

### **ACADEMIC APPOINTMENTS:**

2016-Present Associate Lecturer, Department of Kinesiology, School of Education, University of Wisconsin-Madison

### **HONORS:**

2008	Athletic Training Education Program Alumni and Friends Scholarship, Athletic Training Department, University of Wisconsin, Madison, WI
2008	Helen Pfuderer Smith Kinesiology Scholarship, Department of Kinesiology, University of Wisconsin, Madison, WI
2009	Jan Helwig Athletic Training Scholarship, Athletic Training Department, University of Wisconsin, Madison, WI
2010	Tasha E. Bolton Award for the Most Outstanding Athletic Training Student, Athletic Training Department, University of Wisconsin, Madison, WI
2012	Ruth L. Kirschstein National Research Service Award Predoctoral Fellowship (F31), NIH, NINDS
2014	Poster award finalist, American Association of Anatomists Student Education Research Poster Award, American Association of Anatomists, Annual Meeting, Experimental Biology, San Diego, CA
2016	2015 Clint Thompson Award for Clinical Practice Advancement, Journal of Athletic Training, National Athletic Trainers' Association. Awarded for the publication "Pressure on Sports Medicine Clinicians to Prematurely Return Collegiate Athletes to Play after Concussion," authors Kroshus, E., Baugh, C.M., Daneshvar, D.H., Stamm, J.M., Laursen, R.M., Austin, S.B.

## **CERTIFICATION AND LICENSURE:**

2010, 2015-Present Licensed Athletic Trainer, State of Wisconsin 2010-2015 Licensed Athletic Trainer, State of Massachusetts

2010-Present NATABOC Athletic Training Certification

2007-Present American Red Cross CPR/AED for Professional Rescuers

## TEACHING EXPERIENCE AND RESPONSIBILITIES

University of Wisconsin-Madison

2008-2009 Anatomy 329 Human Anatomy Lab

Fall Undergraduate Student Peer Laboratory Teaching Assistant

Semester Undergraduate Students

Boston University School of Medicine

2012 AN701 Gross Anatomy, Back and Limbs Section

Fall Teaching Assistant Semester Medical Students

2012 AN701 Gross Anatomy, Head and Neck Section

Fall Teaching Assistant Semester Medical Students

2012-2013 AN703 Medical Neuroscience

Winter Teaching Assistant Course Medical Students

2013-2015 AN703 Medical Neuroscience

Winter Laboratory Instructor Course Medical Students

\*Completed a practicum in 2014 during which I assisted with redesigning the laboratory

portion of the course.

Boston University School of Dental Medicine
2014 MD511 Anatomical Sciences II

Spring Teaching Assistant
Semester Dental Students

University of Wisconsin-Madison

2016-Present KINES 328 Human Anatomy Lecture

Year-round Associate Lecturer, Undergraduate Students

### **INVITED LECTURES**

2012 Functional Neuroanatomy, PSY 335 How the Brain Works: An Introduction

to Neuropsychology, Boston University, Undergraduate Course

2013 Chronic Traumatic Encephalopathy, EKIN 3165W Current Research and

Issues in Athletic Training, University of Connecticut, Undergraduate Course

## **INVITED LECTURES (CONTINUED)**

2013	Chronic Traumatic Encephalopathy, EKIN 5533 Current Research and Issues in Athletic Training, University of Connecticut, Graduate Course
2013, 2014	Long-Term Consequences of Concussive and Subconcussive Brain Trauma, HP 412 Abnormal Behavior in Rehabilitation, Boston University, Undergraduate and Graduate Course
2013	The Knee: Anatomy and Clinical Evaluation, Continuing Medical Education, Primary Care Providers, Boston University Student Health Services
2013	The Shoulder: Anatomy & Clinical Evaluation, Continuing Medical Education Primary Care Providers, Boston University Student Health Services
2014	Relationship Between Playing Tackle Football Prior to Age 12 and Later- Life Mood, Behavior, and Executive Function, Anatomy and Neurobiology Department Seminar, Boston University School of Medicine
2015	Later-Life Consequences of Concussive and Subconcussive Brain Trauma, Kinesiology Department Seminar, University of Wisconsin-Madison
2015	Concussion Management, Pressures on Clinicians, and Long-Term Consequences of Repeated Head Impacts, AT499 Seminar in Athletic Training, University of Wisconsin-Madison
2015	Chronic Traumatic Encephalopathy and the Later-Life Consequences of Early Life Repeated Head Impacts, KINES 508 Functional Neuroanatomy, University of Wisconsin-Madison
2016	Chronic Traumatic Encephalopathy and the Later-Life Consequences of Early-Life Repeated Head Impacts. KINES 350 Introduction to Exercise Psychology, University of Wisconsin-Madison
2016	Chronic Traumatic Encephalopathy and the Later-Life Consequences of Early-Life Repeated Head Impacts. Recent Advances in Biology Lecture Series, Lawrence University, Appleton, WI.

## **CLINICAL EXPERIENCE:**

2010-2011 Athletic Trainer, Graduate Assistant, Boston University Athletic Training

## ADDITIONAL RESEARCH EXPERIENCE:

2009-2010	Research Intern, UW Health Sports Medicine, Madison, WI
2011	Research Intern, Center for the Study of Traumatic Encephalopathy, Boston University School of Medicine
2011-2015	Doctoral Student, Chronic Traumatic Encephalopathy Center, Alzheimer's Disease Center, Boston University School of Medicine Principal Investigator Dr. Robert Stern
2011-2015	Doctoral Student, Psychiatry Neuroimaging Laboratory, Harvard University Medical School, Brigham and Women's Hospital Principal Investigator Dr. Martha Shenton

## **COMPLETED RESEARCH SUPPORT:**

2013-2015 F31NS081957, PI: J. M. Stamm, Frontal Lobe Neuroimaging as a Biomarker of Chronic Traumatic Encephalopathy, Predoctoral Research Fellowship Award, Total Direct Costs: \$111,924.00

## **PUBLICATIONS:**

- Young, B.M., **Stamm, J.M.**, Song, J., Remsik, A., Nair, V.A., Tyler, M.E., Edwards, D.F., Caldera, K., Sattin, J.A., Williams, J.C., Prabhakaran, V. Patterns of Brain-Behavior Relationships in Corticospinal and Transcallosal Motor Fibers with and without Brain-Computer Interface Therapy after Stroke. *Frontiers in Human Neuroscience*. (In Press).
- La, C., Mossahebi, P., Nair, V.A., Young, B.M., **Stamm, J.M.**, Birn, R., Meyerand, M.E., Prabhakaran, V. (2016). Differing Patterns of Altered Slow-5 Oscillations in Healthy Aging and Ischemic Stroke. *Frontiers in Human Neuroscience*. 10(156).
- La, C., Nair, V.A., Mossahebi, P., **Stamm, J.M.**, Birn, R., Meyerand, E.M., Prabhakaran, V. Recovery of Slow-5 Oscillations in a Longitudinal Study of Ischemic Stroke Patients. *Neuroimage Clinical*. 11, 398-407.
- Corp, D., Pascual-Leone, A., Di Lazzaro, V., **Stamm, J.M.,** Fried, P., & Pearce, A.J. Intracortical facilitation is dependent on conditioning stimulus intensity in a hand muscle representation of the human motor cortex. (Under Review).
- Baugh, C.M., Kroshus, E., **Stamm, J.M.**, Daneshvar, D.H., Pepin, M., Meehan, WP III. Current practices in collegiate concussion management. (2016) *American Journal of Sports Medicine*. Epub ahead of print.
- Koerte, I.K., Hufschmidt, J., Muehlmann, M., Tripodis, Y., Stamm, J.M., Pasternak, O.,
  Giwerc, M.Y., Coleman, M.J., Baugh, C.M., Fritts, N.F., Heinen, F., Lin, A., Stern,
  R.A., Shenton, M.E. (2015) Cavum Septum Pellucidi in Symptomatic Former
  Professional Football Players. *Journal of Neurotrauma*. 33(4):346-353.
- **Stamm, J.M.**, Koerte, I.K., Muehlmann, M., Pasternak, O., Bourlas, A.P., Baugh, C.M., Giwerc, M.Y., Zhu, A., Coleman, M.J., Bouix, S., Fritts, N.G., Martin, B.M., Chaisson, C., McClean, M.D., Lin, A.P., Cantu, R.C., Tripodis, Y., Stern, R.A., & Shenton, M.E. (2015) Age at First Exposure to Football is Associated with Altered Corpus Callosum White Matter Microstructure in Former Professional Football Players. *Journal of Neurotrauma*, 32(22):1768-1776.
- Kroshus, E., Baugh, C.M., Daneshvar, D.H., **Stamm, J.M.**, Laursen, R.M., & Austin, S.B. (2015) Pressure on sports medicine clinicians to prematurely return collegiate athletes to play after concussion. *Journal of Athletic Training*, 50(9):944-951.
- **Stamm, J.M.**, Bourlas, A.P., Baugh, C.M. Fritts, N.G., Daneshvar, D.H., Martin, B.M., McClean, M.D., Tripodis, Y., & Stern, R.A. (2015) Age of First Exposure to Football and Later-Life Cognitive Impairment in Former NFL Players. *Neurology*, 84(11):1114-1120.

## **PUBLICATIONS (CONTINUED):**

- Stern, R.A., Daneshvar, D.H., Baugh, C.M., Seichepine, D.R., Montenigro, P.H., Riley, D.O., Fritts, N.G., **Stamm, J.M.**, Robbins, C.A., McHale, L., Simkin, I., Stein, T.D., Alvarez, V.E., Goldstein, L.E., Budson, A.E., Kowall, N.W., Nowinski, C.J., Cantu, R.C., McKee, A.C. (2013) Clinical presentation of chronic traumatic encephalopathy. *Neurology*, 81(13):1122-9.
- Seichepine, D.R., **Stamm, J.M.**, Daneshvar, D.H., Riley, D.O., Baugh, C.M., Gavett, B.E., Tripodis, Y., Martin, B., Chaisson, C., McKee, A.C., Cantu, R.C., Nowinski, C.J., & Stern, R.A. (2013). Profile of self-reported problems with executive functioning in college and professional football players. *Journal of Neurotrauma*, 30(14):1299-304.
- Baugh, C.B., **Stamm, J.M**., Riley, D.O., Gavett, B.E., Shenton, M.E., Lin, A., Nowinski, C.J., Cantu, R.C., McKee, A.C., & Stern, R. A. (2012). Chronic traumatic encephalopathy: neurodegeneration following repetitive concussive and subconcussive brain trauma. *Brain Imaging and Behavior*, 6(2):244-54.

## **PRESENTATIONS:**

- Stamm J.M. Later-Life Structural and Functional Consequences of Youth Exposure to Repeated Head Impacts. 39<sup>th</sup> Annual University of Wisconsin Sports Medicine Symposium, University of Wisconsin Sports Medicine and University of Wisconsin School of Medicine and Public Health, Madison, WI. May 5, 2016.
- **Stamm, J.M.** Later-Life Structural and Functional Consequences of Youth Exposure to Repeated Head Impacts. *3<sup>rd</sup> Biannual Alumni and Friends Symposium,* University of Wisconsin-Madison Athletic Training Education Program, Madison, WI. February 20, 2016.
- Koerte, I.K., Shenton, M.E., Lin, A.P., **Stamm, J.M**., Kaurfmann, D., Mayinger, M., Helmer, K., Pasternak, O., Muehlmann, M., Zafonte, R. Neuroimaging in Sports-Related Traumatic Brain Injury What We Know and What We Don't Know. Presentation at the American Academy of Physical Medicine and Rehabilitation 2015, Boston., Massachusetts. October, 2015.
- Baugh, C.M., Kroshus, E., **Stamm, J.M.**, Daneshvar, D.H., Memmini, A., Meehan, W.P. Current Practices in Collegiate Concussion Management. Presentation at the National Athletic Training Association Clinical Symposia and Athletic Training Expo, St. Louis, Missouri. June 26, 2015.
- **Stamm, J.M.** & Zumwalt, A. An anatomical approach to teaching the clinical evaluation of musculoskeletal injuries to primary care providers. Poster Presentation at the *John McCahan Medical Campus Education Day*, Boston University School of Medicine, Boston, MA. May 22, 2014.
- **Stamm, J.M.**, Bourlas, A.P., Baugh, C.B., Daneshvar, D.H., Breaud, A.H., Robbins, C.A., Riley, D.O., Martin, B.M., McClean, M.D., Au, R., Gioia, G., Ozonoff, A., McKee, A.C., Nowinski, C.J., Cantu, R.C., Tripodis, Y., & Stern, R.A. Relationship Between Age of First Exposure to Tackle Football and Later-Life Mood, Behavior, and Executive Function. Poster Presentation at the *Henry I. Russek Student Achievement Day*, Boston University School of Medicine, Boston, Massachusetts. May 2, 2014.

## PRESENTATIONS (CONTINUED):

- **Stamm, J.M.** & Zumwalt, A. An anatomical approach to teaching the clinical evaluation of musculoskeletal injuries to primary care providers. Poster Presentation at the *American Association of Anatomists Annual Meeting, Experimental Biology*, San Diego, California. April 27, 2014.
- Bourlas, A.P., **Stamm, J.M.\***, Baugh, C.B., Daneshvar, D.H., Breaud, A.H., Robbins, C.A., Riley, D.O., Martin, B.M., McClean, M.D., Au, R., Gioia, G., Ozonoff, A., McKee, A.C., Nowinski, C.J., Cantu, R.C., Tripodis, Y., & Stern, R.A. Relationship Between Age of First Exposure to Tackle Football and Later-Life Mood, Behavior, and Executive Function. Oral Presentation at the *International Brain Injury Association Tenth World Congress on Brain Injury*, San Francisco, California. March 20, 2014. \***Presenting Author**
- Koerte, I.K., Mayinger, M., Green, K., Giwerc, M., Dahlben, B., Fredman, E., Eckbo, R.,
  Stamm, J.M., Baugh, C.M., Makris, N. Lin, A., Pasternak, O., Rathi, Y., Stern,
  R.A., & Shenton, M.E. White matter microstructure and cortical thickness in former
  NFL players. Oral Presentation at the *Tenth World Congress on Brain Injury*, San
  Francisco, California. March 19-22, 2014.
- Shenton, M.E., Koerte, I.K., Bouix, S., Pasternak, O., Lin, A.P., Mayinger, M., Coleman, M., Dahlben, B., Giwerc, M., Green, K., **Stamm, J.M**., Helmer, K., Zafonte, R., & Stern, R.A. Advanced Neuroimaging in CE and Repetitive Concussive and Subconcussive Head Trauma. Invited Symposium on Chronic Traumatic Encephalopathy at the *International Brain Injury Association Tenth World Congress on Brain Injury*, San Francisco, California. March 20, 2014.
- Stamm, J.M, Seichepine, D.R., Daneshvar, D., Riley, D.O., Baugh, C.B., Gavett, B., Tripodis, Y., Martin, B.M., Chaisson, C., McKee, A.C., Cantu, R.C., Nowinski, C.J., & Stern, R.A. Profile of Executive Dysfunction in Former College and Professional Football Players with a History of Repetitive Brain Trauma. Poster Presentation at the Henry I. Russek Student Achievement Day, Boston University School of Medicine, Boston, Massachusetts. May 10, 2013
- Seichepine, D.R., **Stamm, J.M**., Riley, D., Baugh, C., Daneshvar, D., & Stern, R.A. (2012). Profile of Executive Dysfunction in Former Professional Football Players with Exposure to Repetitive Concussive and Subconcussive Brain Trauma. Oral Presentation at the *Military Health System Research Symposium*, Ft. Lauderdale, Florida. August 13-16, 2012.

## **PUBLISHED ABSTRACTS:**

- La, C., Nair, V., Mossahebi, P., **Stamm, J.M.**, Birn, R., Meyerand, M.E., Prabhakaran, V. Recovery of Slow-5 Oscillations in a Longitudinal Study of Ischemic Stroke Patients. Abstract. Stroke. (2016) 47(Suppl 1):ATP154- ATP154
- Young, B.M., **Stamm, J.M.**, Song, J., Remsik, A., Nair, V.A., Tyler, M.E., Edwards, D.F., Caldera, K., Sattin, J.A., Williams, J.C., Prabhakaran, V. Brain-computer Interface Therapy for Upper Extremity Stroke Rehabilitation Induces Corticospinal Tract Changes that Track with Individual Behavioral Gains. (2016) 47(Suppl 1):ATMP25-ATMP25

## **PUBLISHED ABSTRACTS (CONTINUED):**

- Bourlas, A.P., **Stamm, J.M.,** Baugh, C.B., Daneshvar, D.H., Breaud, A.H., Robbins, C.A., Riley, D.O., Martin, B.M., McClean, M.D., Au, R., Gioia, G., Ozonoff, A., McKee, A.C., Nowinski, C.J., Cantu, R.C., Tripodis, Y., & Stern, R.A. Relationship Between Age of First Exposure to Tackle Football and Later-Life Mood, Behavior, and Cognition. Abstract. *Brain Injury*. (2014) Brain Inj 28, 517-878
- Koerte, I.K., Mayinger, M., Green, K., Giwerc, M., Dahlben, B., Fredman, E., Eckbo, R., **Stamm, J.M**., Baugh, C.M., Makris, N. Lin, A., Pasternak, O., Rathi, Y., Stern, R.A., & Shenton, M.E. White matter microstructure and cortical thickness in former NFL players. Abstract. *Brain Injury*. (2014) Brain Inj 28, 517-878

## PROFESSIONAL SOCIETIES:

2007-Present National Athletic Trainers Association 2012-Present American Association of Anatomists

## **New Course Proposal**

**Subject** Kinesiology (742) **Proposer** Cynthia N Kuhrasch

Status Under Review by Subject Owner

## **Basic Information**

What is the primary divisional affiliation of this course?

Interdivisional

#### **Course Title**

Technology for Physical Activity and Health Professionals

**Transcript Title (limit 30 characters)** 

Tech for PA and Health

Three-digit course number

312

Is this an honors course?

No

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

No

Will this course be crosslisted?

No

Note the crosslisted subjects

Is this a topics course?

No

Can students enroll in this course more than once for credit?

No

If yes, please justify

**Typically Offered** 

Summer

## **Catalog Information**

Minimum credits

2

**Maximum credits** 

2

## **Grading System**

A-F

## **Course Description (will be published in Course Guide)**

Designed to provide students with creative technology strategies in the fields of school wellness education, physical activity, and fitness management. Students will build skills for using widely available technology resources to enhance instruction, assessment, motivation, communication, and advocacy in fitness settings. Skill-specific units present experiential assignments that increase learner confidence. Each unit produces print or digital materials for practical use.

Does the course have prerequisites or other requirements?

No

List the prerequisites and other requirements for the course

Indicate the component(s) that comprise the course. Check all that apply Lecture

## **Administrative Information**

**Chief Academic Officer** 

Gary M Diffee

Designee of chief academic officer for approval authority

Zoe Elizabeth Hurley

If there are additional contacts, please list

Will any courses be discontinued as a result of this proposal?

No

List course number(s) and complete a course discontinuation proposal for each course

**Beginning Term** 

Summer 2017

## **Academic/Program Information**

Is this course intended for a new academic program for which UAPC approval has not yet been finalized? No

Which program?

Explain the relationship and importance of the proposed course to existing programs or future programs. (A program is a certificate, major or degree.)

This entry level course will provide foundational knowledge in technology for kinesiology majors, and students who are not kinesiology majors, but are interested in learning about technology and it's relations to health, wellness, and physical activity. The course will have no prerequisites. This is an elective course for Kinesiology students

Are any of these programs outside your academic unit?

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this course meets, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement).

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

## **Course Content**

#### Describe the course content

This course will explore ethical practices and professional applications of technology to the fields of health, wellness and physical activity. Introductory level content will be presented as the basis for technology applications. The course consists of two parts. Part 1 presents foundational knowledge in computer and information literacy, professional development and ethical uses of technology. Part 2 surveys technology applications including: Google Applications; Microsoft Applications; Social Media; Video Creation; Web-based Networking; Electronic Portfolios; Mobile Applications; Health, Wellness and Hardware; Health, Wellness and Fitness Software

Address the relationship of this course to other UW-Madison courses, including possible duplication of content *There are no current undergraduate courses which address educational technology.* 

Is there a relationship to courses outside your subject?

Indicate the outside affected subject(s). The proposal will be sent to those subjects for review.

List the instructor name and title (list multiple if applicable)

Cynthia Kuhrasch, Faculty Associate

If the instructor is not a tenured or tenure-track faculty member at UW-Madison, please explain the instructor's qualifications here. Then, go to the "Justifications" tab and upload the instructor's c.v. in the "Additional Attachments" section.

The instructor has a great deal of experience and professional development in the area of educational technology.

Attach a syllabus. See "help" for an explanation of what must be included in the syllabus.

Technology applications in Health and Physical Activity1a.pdf

## **Justifications**

Explain how this course contributes to strengthening your curriculum

This course will prepare Kinesiology students for successful technology integration in the fields of health, wellness, fitness and physical activity.

Provide an estimate of the expected enrollment

*50* 

Justify the number of credits, following the federal definition of a credit hour (see help). Include the number of contact hours or, if contact hours are not an accurate measure of credit, provide an explanation of how credits are measured 2 credits of lecture and 2 credits of work outside of class = 6 hours of work/week over the course of 15 weeks to equal 2 credits

If this is a variable credit course, provide rationale

Additional comments (optional)

Additional attachments (optional) (please read "help" before uploading an attachment) Vita 2016.pdf

# Designations

Should <i>No</i>	this course have the graduate course attribute?
lf	yes, this course:
Should <i>No</i>	the course be reviewed for L&S liberal arts and science (LAS) credit?
W	hat is the rationale for seeking LAS credit?
Level c	of the course, for L&S attributes (value required for all L&S courses and courses requesting LAS credit)
Should <i>No</i>	the course be reviewed for L&S breadth requirements?

## **General Education Designations**

Should the course be reviewed for the general education requirement?

No

Which requirements?

Indicate which:



# KINESIOLOGY 312 TECHNOLOGY FOR PHYSICAL ACTIVITY AND HEALTH PROFESSIONALS 2 CREDITS

INSTRUCTOR: Cindy Kuhrasch, 2027 Gym-Nat, 608.262.4348. ckuhrasch@education.wisc.edu

Office Hours: TBA, and by appointment

Class Schedule: Course presented online in an asynchronistic manner

### **COURSE MATERIALS:**

Required Texts: Leight, J. (2016), Technology for Fitness and Wellness Professionals: Handbook of Technology Strategies: Instructions & Assessments (1e), CreateSpace Independent Publishing Platform:Seattle, WA

McBonnel, W., Smith, K. (2010). Teaching Technologies in Nursing & the Health Professions: Beyond Simulation and Online Courses (1e), Springer Publishing Company: New York, NY Additional materials will be posted on Learn@UW

### **COURSE DESCRIPTION:**

This 2 credit course is designed to provide students with creative technology strategies in the fields of school wellness education, physical activity, and fitness management. Students will build skills for using widely available technology resources to enhance instruction, assessment, motivation, communication, and advocacy in fitness settings. Skill-specific units present experiential assignments that increase learner confidence. Each unit produces print or digital materials for practical use.

**COURSE OBJECTIVES:** After successfully completing this course students will:

- demonstrate knowledge of computer basics and terminology
- demonstrate knowledge of ethical uses of technology
- recognize the importance of, and plan for professional development
- understand the need for technological skills in health and physical activity
- apply technological skills to improve performance and learning
- acquire knowledge of current technological innovations and tools specific to health and physical activity to enhance learning and wellness
- evaluate system specifications relative to value
- demonstrate ability to locate and critique information
- demonstrate proficiency with software and hardware including:
- demonstrate proficiency in acquiring and working with digital images and video

## **COURSE MODULES:**

- Part One
  - Computer and Information Literacy
  - Ethical Uses of Technology
  - Training and Professional Development
- Part Two
  - Google Applications
  - Microsoft Applications
  - Social Media
  - Video Creation



- Web-based Networking
- o Electronic Portfolios
- Mobile Applications
- o Health, Wellness and Hardware
- o Health, Wellness and Fitness Software

## **COURSE REQUIREMENTS:**

Module assignments- For each module students will select a hard or software product and create an application for their professional use.

Quizzes-Students will be required to successfully complete an exam (90%) for each module Final Project- Students will identify an issue related to their chosen profession and create a technological solution or process to minimize the selected issue.

The following rubric will be used to evaluate student work:

Criteria	4	3	2	1
Curriculum Goals & Technologies (Curriculum-based technology use)	Technologies selected for use in the instructional plan are strongly aligned with one or more curriculum goals.	Technologies selected for use in the instructional plan are aligned with one or more curriculum goals.	Technologies selected for use in the instructional plan are partially aligned with one or more curriculum goals.	Technologies selected for use in the instructional plan are not aligned with any curriculum goals.
Instructional Strategies & Technologies (Using technology in teaching/ learning)	Technology use optimally supports instructional strategies.	Technology use supports instructional strategies.	Technology use minimally supports instructional strategies.	Technology use does not support instructional strategies.
Technology Selection(s) (Compatibility with curriculum goals & instructional strategies)	Technology selection(s) are exemplary, given curriculum goal(s) and instructional strategies.	Technology selection(s) are appropriate, but not exemplary, given curriculum goal(s) and instructional strategies.	Technology selection(s) are marginally appropriate, given curriculum goal(s) and instructional strategies.	Technology selection(s) are inappropriate, given curriculum goal(s) and instructional strategies.
"Fit" (Content, pedagogy and technology together)	Content, instructional strategies and technology fit together strongly within the instructional plan.	Content, instructional strategies and technology <u>fit</u> <u>together</u> within the instructional plan.	Content, instructional strategies and technology <u>fit</u> together somewhat within the instructional plan.	Content, instructional strategies and technology do not fit together within the instructional plan.



#### **EXPECTATIONS AND LEARNING ASSESSMENTS:**

Students are expected to access all course materials. Course access will be monitored. Students can experience the most success in this course by reading the assigned chapters in the text, reviewing all materials under the foundations tab and participating in the activities under the exploration tab. Please be an active learner, questions and participation in the class will enhance your experience. Grades are based on the following:

## Assignments

50%

- Computer and Information Literacy
- Ethical Uses of Technology
- Training and Professional Development
- Google Applications
- Microsoft Applications
- Social Media
- Video Creation
- Web-based Networking
- Electronic Portfolios
- Mobile Applications
- Health, Wellness and Hardware

Quizzes30%Final Project $\underline{20\%}$ Total $\underline{100\%}$ 

## **COURSE EVALUATION:**

Grading

A = 92.5 - 100%

AB = 88.5 - 92%

B = 82.5 - 88%

BC = 77.5-82%

C = 69.5-77%

D = 59.5-69%

F = Less than 59%

## **ACCOMMODATION STATEMENT:**

This course is designed to meet the needs of all students. The instructor will try to ensure that all students are fully included in the course activities. Please let me know if you are in need of any special accommodations in the curriculum, instruction, or assessments of this course to enable you to participate fully. Expectations: • NO LATE WORK WILL BE ACCEPTED • All work must be typed (unless otherwise noted) • Silence and put away phones • Use professional demeanor • Additionally, on guest speaker days: o Hats will be removed before class begins o Pack up books and backpacks after acknowledging our speaker and class is dismissed

#### STATEMENT ON ACADEMIC HONESTY:

The Board of Regents, administrators, faculty, academic staff, and students of the University of Wisconsin System believe that academic honesty and integrity are fundamental to the mission of higher education and the UW. Thus, the University has a responsibility to promote academic honesty and



integrity and to develop procedures to deal effectively with instances of academic dishonesty. All students have an obligation to conduct their academic work according to University standards. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions.

#### **READINGS:**

Alagöz, F., Valdez, A. C., Wilkowska, W., Ziefle, M., Dorner, S., & Holzinger, A. (2010, December). From cloud computing to mobile Internet, from user focus to culture and hedonism: the crucible of mobile health care and wellness applications. In *Pervasive Computing and Applications (ICPCA), 2010 5th International Conference on* (pp. 38-45). IEEE.

Ananthanarayan, S., & Siek, K. A. (2012, May). Persuasive wearable technology design for health and wellness. In *2012 6th International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth) and Workshops* (pp. 236-240). IEEE.

Biddiss, E., & Irwin, J. (2010). Active video games to promote physical activity in children and youth: a systematic review. *Archives of pediatrics & adolescent medicine*, *164*(7), 664-672.

Bort-Roig, J., Gilson, N. D., Puig-Ribera, A., Contreras, R. S., & Trost, S. G. (2014). Measuring and influencing physical activity with smartphone technology: a systematic review. *Sports medicine*, 44(5), 671-686.

Botella, C., Riva, G., Gaggioli, A., Wiederhold, B. K., Alcaniz, M., & Banos, R. M. (2012). The present and future of positive technologies. *Cyberpsychology, Behavior, and Social Networking*, 15(2), 78-84.

Brox, E., & Hernández, J. E. G. (2011, May). Exergames for elderly: Social exergames to persuade seniors to increase physical activity. In 2011 5th International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth) and Workshops (pp. 546-549). IEEE.

Butte, N. F., Ekelund, U., & Westerterp, K. R. (2012). Assessing physical activity using wearable monitors: measures of physical activity. *Med Sci Sports Exerc*, *44*(1 Suppl 1), S5-12.

DeVries, G. T. (2010). Innovations in workplace wellness: Six new tools to enhance programs and maximize employee health and productivity. *Compensation & Benefits Review*, 42(1), 46-51.

Holzinger, A., Dorner, S., Födinger, M., Valdez, A. C., & Ziefle, M. (2010, November). Chances of increasing youth health awareness through mobile wellness applications. In *Symposium of the Austrian HCI and Usability Engineering Group* (pp. 71-81). Springer Berlin Heidelberg.

Montague, E., & Perchonok, J. (2012). Health and wellness technology use by historically underserved health consumers: systematic review. *Journal of medical Internet research*, 14(3), e78.

Odynets, T. (2014). Technology of wellness aerobics in the structure of personality-oriented program of physical rehabilitation of women with postmastectomy syndrome. *Slobozhanskyi herald of science and sport*, (5 (49)), 67-69.

Satariano, W. A., Scharlach, A. E., & Lindeman, D. (2014). Aging, Place, and Technology Toward Improving Access and Wellness in Older Populations. *Journal of aging and health*, *26*(8), 1373-1389.

Sundar, S. S., Oeldorf-Hirsch, A., Nussbaum, J., & Behr, R. (2011, May). Retirees on Facebook: can online social networking enhance their health and wellness?. In *CHI'11 extended abstracts on human factors in computing systems* (pp. 2287-2292). ACM.

Thomas, J. R., Silverman, S., & Nelson, J. (2015). Research Methods in Physical Activity, 7E. Human kinetics.

## Cynthia N. Kuhrasch

University of Wisconsin-Madison
Kinesiology
Email: ckuhrasch@education.wisc.edu

## Education

MS, UW-LaCrosse, 1989. Major: Human Performance

BS, UW-LaCrosse, 1982. Major: Physical Education

Supporting Areas of Emphasis: Health Education

High School Diploma, Sheboygan South High School, 1977.

## **Career History**

Kinesiology, University of Wisconsin-Madison, Madison, WI. (2000 - Present) Affiliate Faculty (2000 - Present)

## **Professional Memberships**

Association for Experiential Education. (January 1, 2007 - Present).

American Association for Health, Physical Education, Recreation and Dance. (January 1, 1990 - Present).

Wisconsin Health and Physical Education. (September 2013 - September 2014).

## **Development Activities Attended**

Seminar, "Campus Leadership Initiative Community of Practice," Student Activities, Madison, WI, USA. (May 26, 2016).

Conference Attendance, "Learning Analytics Retreat," DoIT, Madison, wi. (August 25, 2014).

Conference Attendance, "ISTE," Atlanta, GA, USA. (July 13, 2014 - July 17, 2014).

Conference Attendance, "10th Annual OpenEd Conference," OPened, Park City, Utah, US. (November 6, 2013 - November 8, 2013).

Conference Attendance, "WI Health and Physical Educators," WHPE, Wisconsin Dells, WI, United Stated. (October 28, 2013 - October 30, 2013).

Conference Attendance, "Best Practices in Health and Physical Education . . .," WHPE, Waukesha, WI, US. (October 23, 2013 - October 25, 2013).

Expert Policy Panel, "National Governor's Association's Grant Expert Policy Panel," National Governor's Association. (2010).

Conference Attendance, "38th Annual International AEE Conference," Association for Experiential Education, Las Vegas, NV, USA. (November 5, 2010 - November 8, 2010).

Conference Attendance, "37th Annual International AEE Conference," Association for Experiential Education, Montreal, CANADA. (November 4, 2009 - November 8, 2009).

Conference Attendance, "36th Annual International AEE Conference," Association for Experiential Education, Vancouver, WA, USA. (November 3, 2008 - November 7, 2008).

Workshop, "American Master Teacher Workshop." (2002).

Workshop, "University Supervisor Workshop," EAS. (September 2002).

## **TEACHING**

## **Teaching Experience**

## **University of Wisconsin-Madison**

Chinese Champions-Sports Skill Instruction, 2 courses.

740 370, Planning, Teaching and Assessment in Physical Education, 1 course.

740 372, Methods of Teaching PK-12 Educational Games and Fitness, 1 course.

742 119, Introduction to Kinesiology, 15 courses.

742 315, Measurement and Evaluation of Physical Education, 6 courses.

742 325, Creating Community, 3 courses.

742 335, Elementary Methods of Teaching PE, 6 courses.

742 371, Mthds of Tchng Dance Gymnastcs, 1 course.

742 373, Methods Teach Sport Concepts, 1 course.

742 399, Independent Study, 2 courses.

742 478, PE Student Teaching, 8 courses.

742 479, PE Student Teaching, 8 courses.

742 508, Teaching Net/Wall Games, 1 course.

742 590, Chinese Champions-Current Topics, 1 course.

## **Non-Credit Instruction**

```
Workshop, 12 participants. (January 1, 2003 - Present). (2011 - 2012). (2009 - 2010).
```

#### **Awards and Honors**

Learning Analytics Pilot, DoIT Academic Technology. (January 2014 - May 2014).

## **RESEARCH**

## **Published Intellectual Contributions**

## **Book Chapters**

(in press). *Kinesiology: A Modern Integrated Approach*. 500 Terry A. Francois Boulevard, Second Floor, San Francisco, CA 94158: Cengage Learning.

#### Other

(2015). Kinesiology: A Modern and Integrated Approach. *Kinesiology: A Modern and Integrated Approach*.

#### **Presentations Given**

- Kuhrasch, C. (Presenter & Author), Partnership Network, "Physical Education and In-Service Teachers," School of Education, 2000 Observatory Drive.
- Kuhrasch, C. (Presenter & Author), Wajciechowski, M. (Presenter & Author), Goodwin, B. (Presenter & Author), Project Based Learning in Physical Education, "Project Based Learning in Physical Education," PE Central, Atlanta, GA.
- Kuhrasch, C. (Presenter & Author), South Korean Education Delegation, "The State of Physical Education in the United States," External Relations, 2000 Observatory Drive.
- Kuhrasch, C. N. (Presenter & Author), Teaching & Learning with the iPad 2015, "Meta Teacher Evaluation: Empowering and Informing Teacher Development," Emerging EdTech, Raleigh, NC.
- Kuhrasch, C. N. (Presenter & Author), PEOPLE, "Physical Education as Career," University of WI-Madison.
- Kuhrasch, C. N. (Presenter & Author), Blue Sky Science, "What can your center of gravity help you with?," Morgridge Institute, UW-Madison.
- Kuhrasch, C. N. (Presenter & Author), GEAR UP, "Kinesiology CLASS Presentation," PEOPLE.
- Kuhrasch, C. N. (Presenter & Author), 2013 Best Practices in Health and Physical Education . . ., "Getting Them Fired Up! Motivating Middle/HS Students to Learn Kuhrasch/Timm," WHPE, Waukesha, WI.
- Timm, D. J. (Presenter Only), Kuhrasch, C. N. (Presenter & Author), WHPE Convention, "Getting Them Fired Up! Motivating Middle/High School Students to Learn," Wisconsin Health and Physical Education, Waukesha, Wisconsin.
- Kuhrasch, C. N., AEE International Conference, "Creating Community Toolkits," AEE, Las Vegas, NV.
- Kuhrasch, C. N., AEE International Conference, "Experiential Education in Teacher Education Programs," AEE, Montreal, CANADA.
- Kuhrasch, C. N., Teaching and Learning Symposium, "Group Collaboration," UW-Madison, UW-Madison.
- Kuhrasch, C. N., Healthy Classrooms, "Effective approaches to physical education and the importance of childhood fitness," Public Health in Education Symposium, UW-Madison.
- Kuhrasch, C. N., SWEIO, "Those Who Move Together, Groove Together," SWEIO, Madison, WI.
- Kuhrasch, C. N., Pre-college program, "Movin' Minds! Program."
- Kuhrasch, C. N. (Presenter & Author), Texas Technology Workshop, "Web Page Development, Spreadsheets in Teaching, and Database Magic."
- Kuhrasch, C. N., Assessment Workshop MMSD, MMSD.
- Kuhrasch, C. N., Kinesiology Departmental Presentation, "Socio-Cognitive Aspects of PE."

- Kuhrasch, C. N., NASPE PETE convention, "Teaching Methods Through Methods: Modeling the Teaching Process for Future Teachers," NASPE, Santa Monica, CA.
- Kuhrasch, C. N., National PETE conference, "Teaching Methods Through Methods," PETE.
- Kuhrasch, C. N., Madison Metropolitan Public Schools, "Making Assessment Real," MMPS.
- Kuhrasch, C. N., Best Practices Workshop, "Assessment isn't a Four Letter Word," Stevens Point, WI.
- Kuhrasch, C. N., WAHPERD, "Internet Progam Promotion," WAHPERD.
- Kuhrasch, C. N., Beaumont Education Conference, "Internet Program Promotion: How to Toot Your own Horn Without ever Getting in the Car," Beaumont, TX.
- Kuhrasch, C. N., Beaumont Education Conference, "The Power of Databases: Flexing Your Technological Muscle," Beaumont, TX.
- Kuhrasch, C. N., Beaumont Education Conference, "There's a Mouse in My Office! Overcoming Your Fears About Using Computers!," Beaumont, TX.
- Kuhrasch, C. N., Beaumont Education Conference, "Web-Based PE: Taking PE to the net," Beaumont, TX.
- Kuhrasch, C. N., Best Practices Workshop, "Grade is not a four letter word," Stevens Point, WI.
- Kuhrasch, C. N., AAHPERD National Convention, "Technology Skills for Physical Education Teachers."

## **Media Contributions**

#### Internet

EdiPHy. (2014).

## **Contracts, Grants and Sponsored Research**

#### Grant

- Kuhrasch, Cynthia N, "Professional Development Grant."
- Kuhrasch, Cindy, "Blend@UW," Sponsored by UW-Madison, University of Wisconsin-Madison, \$2,500.00. (January 1, 2015 December 31, 2015).
- Kuhrasch, Cynthia (Co-Principal), "Replicable Instructional Technology Infusion," Sponsored by School of Education, University of Wisconsin-Madison, \$5,000.00. (January 1, 2015 December 31, 2015).
- kuhrasch, cynthia, "Education Innovation," Sponsored by University of Wisconsin Madison, University of Wisconsin-Madison, \$800.00. (April 2014 June 2015).
- Kuhrasch, Cynthia N, "Technology Enhanced Collaboration Award," Sponsored by Division of Instructional Technology, University of Wisconsin-Madison. (May 1, 2009 April 30, 2010).

Kuhrasch, Cynthia N, "Engage Podcasting Grant," Sponsored by Division of Instructional Technology, University of Wisconsin-Madison. (November 16, 2006 - October 31, 2007).

Kuhrasch, Cynthia N, "Connecting Theory with In-Service Teachers," Sponsored by Department of Instructional Technology. (2004 - 2006).

Kuhrasch, Cynthia N, "Virginia Horne Henry," Sponsored by Virginia Horne Henry, University of Wisconsin-Madison, \$10,000.00. (June 1, 2003 - May 31, 2004).

## **SERVICE**

## **Department Service**

EdTPA Advisory (June 2012 - Present).

Attendee, Meeting (June 2012 - Present).

Physical Education Teacher Education (September 2006 - Present).

Committee Chair (September 2006 - Present).

Undergraduate Committee (August 1, 2006 - Present).

Attendee, Meeting (August 1, 2006 - Present).

Mismatch Committee (October 2014 - December 2014).

Attendee, Meeting.

Review and suggest possible revisions for policies

Undergraduate Program Revisioning Committee (August 30, 2011 - May 30, 2012).

Attendee, Meeting.

Academic Staff Merit Committee (September 2006 - 2010).

Committee Member (September 2006 - Present).

Committee Chair (September 2007 - June 2010).

## College Service

EdTPA (June 2013 - Present).

Attendee, Meeting.

CCPE (August 2008 - Present).

Member (August 2008 - Present).

Elementary Education Committee (August 2005 - Present).

Member (August 2005 - Present).

## **Professional Service**

```
IDEAS PE.
   Section Editor/Contributor.
PE Central.
    Idea Contributor.
PE Integrated Learning.
   Central Advisory Council.
EdTPA (February 1, 2014 - Present).
    Prepare/Grade Certification Exams (February 1, 2014 - Present).
PE for home school children (September 2005 - Present).
    Program Coordinator (September 2005 - Present).
PE Central (January 2003 - Present).
    Editorial Review Board Member (January 2003 - Present).
    Editor for a section of the website
PE Links4U (August 2002 - Present).
    Editorial Review Board Member (August 2002 - Present).
   Editor for a section of the website
PE Links4U (August 2002 - June 2010).
    Editorial Review Board Member (August 2002 - June 2010).
    Editor for a section of the website
Woodnbarnes Publishing (January 2010 - March 2010).
    Editor, Textbook (January 2010 - March 2010).
   Textbook review-Review of an Educational Technology textbook
National Governor's Association's Grant Expert Policy Panel (September 2006 - May 2007).
    Member (September 2006 - May 2007).
Mayfield Publishing Company (January 2005 - May 2005).
    Editor, Textbook (January 2005 - May 2005).
   Textbook review-Review of an Educational Technology textbook
```