Robert Catena has submitted a request for a major curricular change. His/her email address is: robert.catena@wsu.edu.

**Course Subject:** KINES

**Course Number:** 564

**Title:** Movement Disorders

**Lecture Hours:** 3

**Total Credits:** 3

**Prerequisite:** Enrolled in Kinesiology graduate program OR instructor approval

**Catalog Description:** An examination of the history, neuropathology, assessment, and intervention procedures of movement disorders.

**Grading Type:** Letter graded A-F

**Requested Effective Date:** Spring 2022

**Dean:** Erdman, Phyllis - Assoc Dean - Education

**Chair:** Erdman, Phyllis – Chair – Kinesiology and Educational Psychology
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Both Chair and Dean approval is required to complete the submission process. Please indicate that you have reviewed the proposal by highlighting one of the statements below and reply all to this email. (curriculum.submit@wsu.edu.) [Details of major change requested can be found in the attached supplemental documentation]

1. I approve this proposal in its current form.

2. I approve this proposal with revisions. Revisions are attached.

3. I do not approve this proposal. Please return to submitter.

If you do not respond within one week, you will be sent a reminder email. If no response is received within three weeks of the submission date, the proposal will be returned to the submitter.

Thank you for your assistance as we embark on this new process. If you have any questions or concerns, please let us know wsu.curriculum@wsu.edu.

Blaine Golden, Assistant Registrar
Graduations, Curriculum, and Athletic Compliance
Washington State University
Registrar’s Office
PO Box 641035
Pullman WA 99164-1035
509-335-7905
bgolden@wsu.edu

Note: Please use the attachments to this email rather than the link below to view the supporting documentation.
New Course Description and Rationale
KINES 564 – Movement Disorders

Description (20 words or less)
An examination of the history, neuropathology, assessment, and intervention procedures of movement disorders.

Rationale
The graduate level course titled Movement Disorders will be taught in the spring semester and offered every other year as part of the curriculum of Kinesiology program’s new graduate degree (Master of Science in Kinesiology). This course is intended for students in the MS Kinesiology degree, but it is anticipated that students will enroll in the course from various units around the Pullman campus if they have an interest in the many fields of study related to health and human development. The course adds to a series of other kinesiology courses focused on the various sub disciplines of kinesiology. No such course exists at Washington State University.

In this class, students will examine the history, neuropathology, etiology, and assessment of movement disorders. The course will build students’ theoretical knowledge by probing the atypical neural functional anatomy and mechanisms underlying motor and non-motor deficits in adult and pediatric populations across a number of movement disorders. Students will also explore evaluation, intervention, and treatment procedures. The use of primary research articles will familiarize students with the literature and provide students with the tools and knowledge to remain up to date with current advances and apply them in their own work.

Impact on other units
This course is not expected to impact other units within the college or across the campuses.
Instructor: Shikha Prashad, Ph.D.
Office: Smith Gym 213E
Office Phone: 509-335-5363
Email: s.prashad@wsu.edu
Office Hours: TBD

Credit Hours: Three
Prerequisites: Enrolled in Kinesiology graduate program OR instructor approval
Classroom and Time: Wed 15:10 – 18:00

Course Materials: There is no required textbook for this course. Required reading will be provided online.

Catalog Description: An examination of the history, neuropathology, assessment, and intervention procedures of movement disorders.

Course Objectives: By the end of this course, students will be able to:
- Review historical and recent research related to the development of theories in motor control.
- Demonstrate the background knowledge and tools to select, summarize, critically analyze, and evaluate current research.
- Clearly communicate and integrate research in classroom presentations.
- Learn to provide constructive feedback to peers.
- Develop and write a research article based on the current literature and provided data.

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Evaluation Method</th>
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</thead>
<tbody>
<tr>
<td>Describe and compare the neural mechanisms in health and neurological disease for major movement disorders</td>
<td>Weekly discussion posts</td>
</tr>
<tr>
<td>Compare and contrast clinical models of movement disorders</td>
<td>Weekly discussion posts; Discussion and presentation of classic papers chosen by instructor</td>
</tr>
<tr>
<td>Analyze and discuss the primary literature on movement disorders</td>
<td>Discussion and presentation of papers selected by students</td>
</tr>
<tr>
<td>Understand the complexities of quantifying movement disorders in different patient populations</td>
<td>Group presentation of clinical assessment</td>
</tr>
<tr>
<td>Develop a proposal for an in-depth investigation into a specific movement disorder</td>
<td>Research paper and presentation</td>
</tr>
</tbody>
</table>

Course Evaluation:
Weekly discussion posts 25% of final grade (10 points per week)
For selected readings, students will be required to submit a discussion post on Canvas summarizing the reading. Discussion posts are due by 23:59 on the Tuesday before class in which the readings will be discussed. Students are encouraged to comment on another student’s discussion posts to answer questions, positively reinforce the original post, or respectfully disagree with the original post. To get the most out of this class, it is critical to complete the readings prior to their discussion.
Class presentations 20% of final grade
Students will present two research articles of their choice related to the week’s assigned topic and readings. Presentations should reflect a critical examination of the articles and guide a meaningful discussion.

Group presentation of clinical assessment 10% of final grade
Students will work in groups to present a clinical assessment designed to evaluate a movement disorder. The presentation should include an explanation of the assessment, a demonstration of its use, and a critique of its value.

Research paper 35% of final grade (10% peer review, 10% presentation, 15% research paper)
Students will write a research article on a topic related to empirical study of a movement disorder. Students may pick a topic of interest to them (but the topic must be approved by the instructor) and will have opportunities for peer review, feedback, and rewriting of the paper based on this feedback. Students will provide peer review to a paper written by another student in the class using the assignment rubric. The peer review and rewriting of the paper will constitute 10% of the final grade. Students will also present their work to the class (10% of the final grade).

Participation 10% of final grade
Students are expected to attend each class and actively participate in class discussions.

Grading
Final grades will be based on a weighted average of the weekly discussion posts (25%), class presentations (20%), group presentation of clinical assessment (10%), research paper (35%), and participation (10%).

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93.00 – 100%</td>
</tr>
<tr>
<td>A-</td>
<td>90.00 – 92.99%</td>
</tr>
<tr>
<td>B+</td>
<td>87.00 – 89.99%</td>
</tr>
<tr>
<td>B</td>
<td>83.00 – 86.99%</td>
</tr>
<tr>
<td>B-</td>
<td>80.00 – 82.99%</td>
</tr>
<tr>
<td>C</td>
<td>73.00 – 76.99%</td>
</tr>
<tr>
<td>C+</td>
<td>70.00 – 72.99%</td>
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<tr>
<td>C-</td>
<td>67.00 – 69.99%</td>
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<tr>
<td>D</td>
<td>67.00 – 69.99%</td>
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<tr>
<td>D+</td>
<td>70.00 – 72.99%</td>
</tr>
<tr>
<td>D</td>
<td>&lt; 59.99%</td>
</tr>
</tbody>
</table>

Course Schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
<th>Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to movement disorders</td>
<td>Syllabus</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Functional neuroanatomy and physiology of typical motor control</td>
<td>Pavese &amp; Brooks, 2013; Wise &amp; Shadmehr, 2001</td>
<td>Weekly discussion posts</td>
</tr>
<tr>
<td>3</td>
<td>Functional neuroanatomy of the basal ganglia</td>
<td>Berardelli &amp; Suppa, 2013; Lanciego et al., 2012</td>
<td>Weekly discussion posts</td>
</tr>
</tbody>
</table>

Hypokinetic disorders

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
<th>Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Clinical features and differential diagnosis of Parkinsonism</td>
<td>Gasser et al., 2014; Goetz, 2011</td>
<td>Weekly discussion posts</td>
</tr>
<tr>
<td>5</td>
<td>Clinical assessment of Parkinson’s Disease</td>
<td>Evers et al., 2019; Goetz et al., 2008; MDS-UPDRS Manual; Shulman et al., 2010;</td>
<td>Weekly discussion posts</td>
</tr>
<tr>
<td>6</td>
<td>Current views on the etiology and pathogenesis of Parkinson’s Disease</td>
<td>Massano &amp; Bhatia, 2012; Mazzoni et al., 2012</td>
<td>Weekly discussion posts</td>
</tr>
<tr>
<td>7</td>
<td>Medical Treatment of Parkinson’s Disease</td>
<td>Rao et al., 2006; Singh et al., 2007</td>
<td>Weekly discussion posts</td>
</tr>
<tr>
<td></td>
<td>Topic</td>
<td>Reference(s)</td>
<td>Assignments Due</td>
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<tr>
<td>8</td>
<td>Nonmotor deficits in Parkinson’s Disease</td>
<td>Chaudhuri &amp; Schapira, 2009</td>
<td>Weekly discussion posts, class presentations</td>
</tr>
<tr>
<td>10</td>
<td>Parkinsonism Plus Syndromes and Secondary Parkinsonian Disorders</td>
<td>Dickson, 2012</td>
<td>Weekly discussion posts, class presentations, clinical assessment presentations</td>
</tr>
<tr>
<td>11</td>
<td>Gait disorders</td>
<td>Jankovic, 2015; Pirker &amp; Katzenschlager, 2016</td>
<td>Weekly discussion posts, class presentations, clinical assessment presentations</td>
</tr>
<tr>
<td></td>
<td><strong>Hyperkinetic disorders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Dystonia</td>
<td>Hallett, 1998; Berardelli et al., 1998; Jankovic, 2013</td>
<td>Weekly discussion posts, class presentations, clinical assessment presentations First draft of research paper</td>
</tr>
<tr>
<td>13</td>
<td>Huntington’s disease</td>
<td>Parsons &amp; Raymond, 2014; Walker, 2007</td>
<td>Weekly discussion posts, class presentations, clinical assessment presentations Peer review of assigned research paper</td>
</tr>
<tr>
<td>14</td>
<td>Tremors, tics and Tourette syndrome</td>
<td>Ackermans, 2008; Robertson, 2000; Stern et al., 2000</td>
<td>Weekly discussion posts, class presentations, clinical assessment presentations</td>
</tr>
<tr>
<td>15</td>
<td>Ataxia</td>
<td>Akbar &amp; Ashizawa, 2015; Ashizawa &amp; Guangbin, 2016; Bastian, 1997</td>
<td>Weekly discussion posts, class presentations, clinical assessment presentations</td>
</tr>
<tr>
<td>16</td>
<td>Presentation of research paper</td>
<td></td>
<td>Final draft of research paper</td>
</tr>
</tbody>
</table>

Note: Each student must submit a weekly discussion post, but students will sign up for two class presentations and one clinical assessment presentation for the semester. The Assignments Due column reflects the presentations deadline for the students that selected those dates.

Students are encouraged to refer to the academic calendar often to be aware of critical deadlines throughout the semester. The academic calendar can be found at [http://registrar.wsu.edu/academic-calendar/](http://registrar.wsu.edu/academic-calendar/).

**Classroom Expectations:**
1. Students will treat their classmates and faculty with respect, including coming to class on time.
2. Students will know the dates and requirements of all assignments and exams in the class.
3. Students will complete and submit all assignments on time.
4. Students will communicate in a professional manner with the faculty.
5. Students will engage in the material in the class and complete all assigned readings.

**Expectations for Student Effort:** For each hour of lecture equivalent, students should expect to have a minimum of two hours of reviewing class content outside class.

**Attendance and Make-up Policy:** Students are expected to attend each class. In the event a student is unable to attend a class, it is the responsibility of the student to inform the instructor as soon as possible.
and make arrangements for any missed work. No make-ups of class sessions will occur except for university-approved absences such as personal or family sickness or religious holidays.

**COVID-19 Policy:** Students are expected to abide by all current COVID-19 related university policies and public health directives, which could include wearing a cloth face covering, physically distancing, self-attestations, and sanitizing common use spaces. All current COVID-19 related university policies and public health directives are located at https://wsu.edu/covid-19/. Students who do not comply with these directives may be required to leave the classroom; in egregious or repetitive cases, students may be referred to the Center for Community Standards for university disciplinary action.

**Academic Integrity Policy:** All members of the university community share responsibility for maintaining and promoting the principles of integrity in all activities, including academic integrity and honest scholarship. Students are responsible for understanding the full Academic Integrity Statement found online at https://vpue.wsu.edu/policies/statements/#academic-integrity. Students who violate WSU's Academic Integrity Policy (identified in WAC 504-26-010(3) and -404) will fail the assignment, will not have the option to withdraw from the course pending an appeal, and will be reported to the Office of Student Conduct. If you have any questions about what is and is not allowed in this course, you should ask course instructors.

**Reasonable Accommodation Statement:** Reasonable accommodations are available for students with documented disabilities or chronic medical or psychological conditions. If you have a disability and need accommodations to fully participate in this class, please visit your campus’ Access Center/Services website to follow published procedures to request accommodations. Students may also contact their campus offices to schedule an appointment with a Disability Specialist. All disability related accommodations are to be approved through the Access Center/Services on your campus. It is a university expectation that students visit with instructors (via email, Zoom, or in person) to discuss logistics within two weeks after they have officially requested their accommodations.

For more information contact a Disability Specialist on your home campus:
- Pullman, WSU Global Campus, Everett, Bremerton, and Puyallup: 509-335-3417 Access Center (https://www.accesscenter.wsu.edu) or email at access.center@wsu.edu
- Spokane: 509-358-7816 Access Services (https://spokane.wsu.edu/studentaffairs/access-resources/) or email j.schneider@wsu.edu
- Tri-Cities: Access Services (http://www.tricity.wsu.edu/disability/) or email p.hormel@wsu.edu
- Vancouver: 360-546-9238 Access Center (https://studentaffairs.vancouver.wsu.edu/student-wellness-center/access-center) or email van.access.center@wsu.edu

**Accommodation for Religious Observances or Activities:** Washington State University reasonably accommodates absences allowing for students to take holidays for reasons of faith or conscience or organized activities conducted under the auspices of a religious denomination, church, or religious organization. Reasonable accommodation requires the student to coordinate with the instructor on scheduling examinations or other activities necessary for course completion. Students requesting accommodation must provide written notification within the first two weeks of the beginning of the course and include specific dates for absences. Approved accommodations for absences will not adversely impact student grades. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the period of absence. Students who feel they have been treated unfairly in terms of this accommodation may refer to Academic Regulation 104 – Academic Complaint Procedures.
**Safety and Emergency:** Please sign up for emergency alerts on your account at MyWSU. For more information on this subject, campus safety, and related topics, please view the FBI’s Run, Hide, Fight video and visit the classroom safety page [https://provost.wsu.edu/classroom-safety/](https://provost.wsu.edu/classroom-safety/).

**Severe Weather:** For severe weather alerts, see: [http://alert.wsu.edu/](http://alert.wsu.edu/) and [https://oem.wsu.edu/emergency-procedures/severe-weather/](https://oem.wsu.edu/emergency-procedures/severe-weather/). In the event of severe weather affecting university operations, guidance will be issued through the alert system. For more information, please visit: [https://vpue.wsu.edu/policies/statements/#safety-and-emergency-notification](https://vpue.wsu.edu/policies/statements/#safety-and-emergency-notification).

**Students in Crisis – Pullman Resources**
- If you or someone you know is in immediate danger, DIAL 911 FIRST!
- AWARE Network: aware.wsu.edu
- Cougar Transit: 978 267-7233
- WSU Counseling and Psychological Services (CAPS): 509 335-2159
- Suicide Prevention Hotline: 800 273-8255
- Crisis Text Line: Text HOME to 741741
- WSU Police: 509 335-8548
- Pullman Police (Non-Emergency): 509 332-2521
- WSU Office of Civil Rights Compliance & Investigation: 509 335-8288
- Alternatives to Violence on the Palouse: 877 334-2887
- Pullman 24-Hour Crisis Line: 509 334-1133