

Certificates**Biomedical Neuroscience****Rationale and Mission for Biomedical Neuroscience Certificate Program****RATIONALE**

The field of Neuroscience is a rapidly changing area that has a large impact on several fields of medicine including public health, public policy, and sports medicine, as well as on the military and the pharmaceutical industry. The last decade has witnessed a dramatic increase in our understanding of normal brain function across the lifespan and how brain function is altered by aging and neurodegenerative disease. Diseases normally associated with the aging population are becoming more common and include Alzheimer's disease, Parkinson's disease, stroke, diabetic neuropathy, and brain tumors. Moreover, research efforts are revealing that many of the major public health problems of our society, including obesity and addictive behaviors, are intimately associated with neural systems.

The Graduate Biomedical Neuroscience Certificate is designed to provide post-graduate students and working professionals, whose professions are impacted by the field of Neuroscience, with an understanding of normal brain function and the clinical expression and underlying pathogenesis of common neurological disorders. The certificate is based on successful completion of a five courses (11 credits) covering topics that will provide students with the tools required to understand the most common nervous system-related issues facing our society today.

MISSION

The mission of the Biomedical Neuroscience Graduate Certificate Program is to provide post-graduate students and working professionals with knowledge that will enable them to understand normal brain function and identify the clinical expression and underlying pathogenesis of common neurological disorders. This supports the missions of the department, the college, and the university to teach and provide professional development opportunities to individuals that lead to a well-qualified leaders, workforce, and citizens.

2014-15 SLO 1: Student Learning Outcomes for Biomedical Neuroscience Certificate

Describe and identify the major anatomical and functional systems of the human nervous system.

SLO Area (select one): Knowledge (Grad)

Assessment Method

Biomedical Neuroscience Certificate College: Medicine

SLO 1			
Courses	Assessment 1	Assessment 2	Assessment 3
GMS6007	Proctored online exams (midterm/final)	Voice Thread projects	Module/Unit quizzes
GMS6705	Proctored online exams (midterm/final)		Module/Unit quizzes
GMS6021	Proctored online exams (midterm/final)	Voice Thread projects	Module/Unit quizzes

SLO1 - Describe and identify the major anatomical and functional systems of the human nervous system.

2014-15 SLO 2: Student Learning Outcome for Biomedical Neuroscience Certificate

Explain how malfunctions of the major systems that comprise the human nervous system contribute to the clinical and pathological phenotypes of common neurological disorders.

SLO Area (select one): Knowledge (Grad)

Assessment Method

Biomedical Neuroscience Certificate College: Medicine

SLO 2			
Courses	Assessment 1	Assessment 2	Assessment 3
GMS6705	Proctored online exams (midterm/final)	Voice Thread projects	Module/Unit quizzes
PSY6930	Proctored online exams (4)	Voice Thread projects	Module/Unit quizzes
GMS6750	Proctored online exams (midterm/final)	Voice Thread projects	Module/Unit quizzes

SLO2 - Explain how malfunctions of the major systems that comprise the human nervous system contribute to the clinical and pathological phenotypes of common neurological disorders.

Biomedical Neuroscience Certificate Assessment Plan Detail

Start: 7/1/2014

End: 6/30/2015

Progress: Ongoing

Providing Department: Biomedical Neuroscience
Responsible Roles: Professor and Director (Semple-Rowland, Susan)

Research (Graduate and Professional AAPs only)

Not applicable to the Certificate Program.

Assessment Timeline (Graduate and Professional AAPs only)
Overall Assessment Timeline for Biomedical Neuroscience Certificate

Program Biomedical Neuroscience Certificate College: Medicine

SLO 1	Assessment 1	Assessment 2	Assessment 3
Courses			
GMS6007	Proctored online exams (midterm/final)	Voice Thread projects	Module/Unit quizzes
GMS6705	Proctored online exams (midterm/final)		Module/Unit quizzes
GMS6021	Proctored online exams (midterm/final)	Voice Thread projects	Module/Unit quizzes

SLO1 - Describe and identify the major anatomical and functional systems of the human nervous system.

SLO 2	Assessment 1	Assessment 2	Assessment 3
Courses			
GMS6705	Proctored online exams (midterm/final)	Voice Thread projects	Module/Unit quizzes
PSY6930	Proctored online exams (4)	Voice Thread projects	Module/Unit quizzes
GMS6750	Proctored online exams (midterm/final)	Voice Thread projects	Module/Unit quizzes

SLO2 - Explain how malfunctions of the major systems that comprise the human nervous system contribute to the clinical and pathological phenotypes of common neurological disorders.

Curriculum Map (UG AAPs only)

Assessment Cycle (All AAPs)

Assessment Cycle

Analysis and Interpretation: From June 1 to August 30
Improvement Actions: Completed by November 30
Dissemination: Completed by December 20

This program starts in 2014-15; the exact semester has not been set at the time of this AAP. We will conduct our first measurements in the 2015-16 academic year.

Year	14-15	15-16	16-17	17-18	18-19	19-20
SLOs						
Content Knowledge						
#1		X	X	X	X	X
#2		X	X	X	X	X

SLO1 - Describe and identify the major anatomical and functional systems of the human nervous system.

SLO2 - Explain how malfunctions of the major systems that comprise the human nervous system contribute to the clinical and pathological phenotypes of common neurological disorders.

Methods and Procedures (UG and Certificate AAPs) & SLO Assessment Matrix (UG AAPs only)

Proctored Exams

The exams will be evaluative and consist of both multiple choice (identify), matching (identify), and short essay questions (describe, compare, interpret).

Voice Thread Projects

Voice Thread is an asynchronous, multimedia learning/discussion platform that students will use to create projects to explain concepts, evaluate relationships between concepts, and interpret neurological findings as they relate to disease. Individual and group student projects will be evaluated by the instructor(s) as well as their peers. In addition to the quality of the project, students will also be evaluated on their responses to questions posted by instructors and peers on their project threads.

Module/Unit Quizzes

These quizzes will be formative and will be given at the conclusion of the modules and units that constitute each course. They will primarily consist of multiple choice and short answer questions.

SLO Assessment Rubric (All AAPs)

GRADING RUBRIC FOR STUDENT VOICE THREAD PROJECTS – 24 points maximum

VT content	4 The VT includes all information relevant to the assignment presented in an organized fashion.	3 VT includes all relevant information; however, the organization of the information could be improved.	2 VT does not have all of the requested information. Information is not well-organized.	1 The VT does not contain the requested information.
Work quality/effort	4 The work done exceeds all expectations and shows that the student is proud of his/her work. The effort that was put into this task is the best it can be by the student.	3 The work was done with good effort that shows what the student is capable of. It is evident that time was put into this poster presentation.	2 Work is done with fair effort, but the quality is still not what the student is capable of. It is evident that the work was rushed.	1 Work is done with little effort. It is evident that the work was rushed and little time was spent on the final product. Work is incomplete.
Style/Mechanics	4 The VT has an element of creativity and style, and is not just a list of facts. The VT conveys a clear understanding of the topic.	3 The VT is clear and contains few mistakes. Good creativity and neatness.	2 The VT lacks clarity of information, creativity, and neatness.	1 The VT does not convey a clear understanding of the subject matter. There are many errors. VT is not creative.
Presentation	4 The student did an excellent job presenting their project and answered all posted questions with confidence.	3 The student presented their project very well and answered all posted questions.	2 The student did a fair job presenting their project and/or was unable to answer all posted questions.	1 The student did a poor job presenting their project and failed to answer posted questions.
Timing of Presentation	4 The duration of the VT falls within the time limit stated for the assignment	3 The duration of the VT is 1-5 min over the time limit stated for the assignment	2 The duration of the VT is 6-10 min over the time limit stated for the assignment	1 The duration of the VT is ≥ 10 min over the time limit stated for the assignment
Overall	4 Wow	3 Nice	2 Okay	1 Poor

Measurement Tools (Graduate and Professional AAPs Only)

Assessment Oversight (All AAPs)

[Assessment Oversight](#)

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Academic Assessment Plan Entry Complete: