

# Attention!

This is a *representative* syllabus.

The syllabus for the course when you enroll may be **different**.

Use the syllabus provided **by your instructor** for the most up-to-date information. Please refer to your instructor for more information for the specific requirements for a given quarter.

# MVIMG 750 – Principles of Neuroimmunology (3 credit hours)

Jonathan Godbout, Course Coordinator

Meeting Times: Tuesday/Thursday 9:30-11:00 am

<b>General Topic (subtopics)</b>	<b>Instructor</b>
Introduction to Neuroimmunology	Popovich
Cellular components of neuroinflammation (1)	Popovich
Cellular components of neuroinflammation (2)	Popovich
Regulating Inflammation in the Brain/Spinal Cord (1)	Popovich
Regulating Inflammation in the Brain/Spinal Cord (2)	Popovich
Humoral Immunity and Neuroinflammation	Ankeny
Applied Neuroimmunology –CNS Autoimmune Diseases	Whitacre
Multiple Sclerosis/EAE round table	CLASS
Excitotoxicity and Neuroinflammation	McTigue
Applied Neuroimmunology – Infectious Disease in CNS/Meningitis	Kiliean
Meningitis Round table	CLASS
Applied Neuroimmunology – Alzheimer’s Disease	Kuret
Applied Neuroimmunology – Alzheimer’s Disease	Landreth
Alzheimer’s disease round table	CLASS
Neuroendocrine-Immune Interactions in Health/Disease	Sanders
Neuroendocrine-Immune Interactions Round table	CLASS
Signaling mechanisms in neuroinflammatory disease: NFkB	Bethea
Chemokines and Neuroinflammation	Ransohof
Chemokines/Signaling Round table	CLASS
FINAL EXAM	

## **Final Exam:**

Comprehensive examination covering all lecture/discussion material. This exam will be a multiple choice/short answer exam and will account for 30% of the final grade.

## **Round Table Discussion:**

On designated days, we will have a group discussion about a primary research article related to a prior lecture. When possible, review articles will also be assigned to provide background material. Students will be assigned to lead discussion on these days. However, it is expected that ALL students will read and participate in the discussion.

Class participation will account for 10% of your final grade. Although this is subjective, I will be looking to make sure everyone is involved. While most students tend to be reserved in this type of setting, your learning experience and that of the class is enhanced when you ask

questions and express your opinions. Please get involved!

**Viewpoint Article:**

Students are expected to write a 3-5 page (single spaced) “viewpoint” article on one of the following topics:

1. Physiological/pathological role of cytokines/chemokines in neuroinflammation
2. Neuroinflammatory mechanisms of experimental/clinical neurodegenerative disease (e.g., ALS, Parkinson’s, Alzheimer’s disease).
3. Immunological caveats of neural transplantation
4. Stem cells and neuroinflammation
5. Functional implications of CNS macrophage function
6. Functional implications of T- or B-lymphocyte function in CNS trauma or disease
7. Pick a topic!

The viewpoint article will constitute 60% of the final grade.

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**Neuroscience Graduate Studies Program**

4058 Graves Hall | 333 W. 10th Avenue

Columbus, Ohio 43210

p: 614.292.2379 | f: 614.292.0490

e: [NGSP@osu.edu](mailto:NGSP@osu.edu)