December 28, 2018

NSCI-403

INTRODUCTION TO NEUROIMAGING

WINTER TERM 2025

COURSE COORDINATOR

Dr. Patrick W. Stroman
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INSTRUCTOR

Dr. Patrick Stroman

TEXTBOOK

There is no formal textbook for this course. Information to support the course material will be obtained from various freely available on-line sources. Copies of a text book on MRI theory and functional MRI will be available in Bracken Library ("Essentials of Functional MRI", by P. Stroman). Course materials in the form of PowerPoint slides for each lecture will also be provided.

EVALUATION

Mid-term examination	⅓ of grade
Final examination	⅓ of grade
Term project (written paper)	⅓ of grade

REVIEW AND APPEAL OF GRADES

Students have the right to review their final examination papers.

For this purpose, final examination paper means the final examination question paper in a course and the graded answer paper written by the student, which by Senate policy, must be retained for a period of 12 months.

As a first step (and noting the time limitation), the student should request an informal review with the instructor.

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Lectures – Winter 2025

Lecture materials will be provided in the form of PowerPoint slides. The dates in the table below indicate the approximate dates for keeping up with lectures, but the actual schedule may vary.

Classes will be held in-person, with three one-hour classes per week in Watson Hall room 217. Classes will be Mondays 15:30-16:30, Wednesdays 14:30-15:30, and Thursdays 16:30-17:30, starting January 6th 2025.

Students will also be able to email questions to the instructor, and the answers will be posted online, with the intention of this being a searchable database so that all students can find previous questions, search answers etc.

As this is a new approach, the exact format and dates will be revised as needed.

Approximate DATES*	Lecture TOPIC
Week of:	
January 6	Introduction to basic imaging concepts CT
January 13	PET/SPECT MRI
January 20	Anatomical imaging concepts
January 27	Anatomical imaging applications
February 3	Functional imaging concepts
February 10	Review session *Mid-term exam*
February 17	*Reading week*
February 24	Why MRI for functional imaging? fMRI data acquisition
March 3	fMRI data acquisition fMRI data analysis
March 10	fMRI data analysis fMRI study design
March 17	fMRI study design Examples of applications of structural and functional neuroimaging
March 24	Examples of applications of structural and functional neuroimaging
March 31	Examples of applications of structural and functional neuroimaging *Term Assignment due*
	FINAL EXAMINATION