

# NSF 100: Neuroscience

## Workings of the Animal Mind

Instructor: Dr. Preethi Radhakrishnan

Associate Professor

Department of Natural Science

LaGuardia Community College

Office: M213 ; Email: [pradhakrishnan@lagcc.cuny.edu](mailto:pradhakrishnan@lagcc.cuny.edu)



Peer Mentor: Kyoung Kang

Email: [kkang@lagcc.cuny.edu](mailto:kkang@lagcc.cuny.edu)

Phone: 718-482-5404

ePortfolio Open Lab Room: B121

## CLASS MEETINGS

First Year Seminar for Natural Sciences - 2 Credits/3 Hours

2 Hour: In-class Meeting with Faculty (Wed 9:15-11:30 – E146)

1 Hour: ePortfolio Studio Hour with Peer Mentor (Thu 3:15-4:15)

## REQUIRED READINGS

Readings will be required and/or recommended throughout the semester by the Professor and Peer Mentor

**PRE-REQUISITE:** None

## COURSE DESCRIPTION

This First Year Seminar is required of all new students in any of the majors offered by the Natural Sciences (NS) Department. Its goals are to help student's transition to campus culture, develop a clear understanding of the learning process, and acquire the skills and dispositions essential to the study and practice of science. The topic of this course is *Neuroscience: Workings of the Animal Mind* – The study of the brain and mind has become one of the most exciting frontiers of science. In this seminar we will discuss some fundamental aspects of science, including reasoning and experimental design. We will also review the basic principles of creativity in the sciences and the basics of brain structure and function. We will then use these foundations to further explore some of the exciting areas of research in brain and mind. What can brain damage tell us about the mind and how it works? How is the brain of a psychopath different from that of normal individual? This seminar will employ the use of assigned readings, video and audio documentaries to enhance the learning experience.

## PARTICIPATION & ATTENDANCE

Each student is expected to keep up with course assignments, readings, and to attend class. Participation will be evaluated based on your engagement in the class, substantial contributions to class discussions and evidence of having completed any reading assigned. College level behavior, courteousness, and active participation are expected from each student. **Please turn off all cell phones, iPods, and other electronic equipment during class time. If you miss more than 2 faculty hour and/or studio hour periods (without valid excuse) you will automatically FAIL this course.**

## ACADEMIC HONESTY

Academic Dishonesty is prohibited in the City University of New York (CUNY) and is punishable by penalties ranging from a grade of "F" on a given test, research paper or assignment, to an "F" in the course, or suspension or expulsion from the College. Please visit this website to learn more about what is classified as academic dishonesty by CUNY

<http://library.laguardia.edu/files/pdf/academicintegritypolicy.pdf>

## ASSIGNMENTS

### Recommended Grading Standards:

Category	%
4 Reflections @5 pts each	20%
ePortfolio	5%
1 Research paper	20%
1 Project Presentation	20%
College Connections	15%
Educational Planning	20%
<b>Total</b>	<b>100%</b>

### Grading Schema:

90-100=A	87-89 = B+
80-86= B	77-79= C+
70-76= C	67-69= D+
60-66= D	Below 60= F

**Note:** The Studio Hour attached to *First Year Seminar for Natural Sciences* will be managed by a peer tutor to support the integration of ePortfolio activities focused on a flexible set of holistic Student Learning Objectives - *Inquiry, Problem Solving, and Integration* into the course.

In the Studio Hour, students will have the opportunity to work with peer mentors and classmates to explore and complete various activities integrated into *First Year Seminar for Natural Sciences* including college and discipline expectations, relationships between curricular and co-curricular, advisement, and health and wellness activities.

### Assignments:

- 1. Reflections** – These involve good note taking during class time in order for you to go home and construct reflective essays (minimum – 600 words; maximum – 1000 words).
- 2. Final Research paper** - needs to be 5-7 pages long. Details of how to write a conduct a literature review for a research paper will be demonstrated in class. The first draft needs to be submitted in week 9, with the final draft due at the end of the course.
- 3. College Connections – These encompass co-curricular activities** – There will be a list of co-curricular activities, which will be handed to you at the beginning of the semester. You will be required to involve yourself in at least 2 of these activities and post a reflection on each.
- 4. Educational Planning** – This section needs to be completed on the ePortfolio. Details and instructions will be given during class time.
- 5. Final Project presentation** – This project presentation will encompass aspects of both disciplinary learning, College 101 and your own personal Educational Planning.

## Syllabus

### Week 1: Introduction to the First Year Seminar for Natural Sciences

- Introductions, information, syllabus reviews
- Where are you, where have you been and how did you get here – Value Discussion Activity
- Creativity in the Sciences – Intro to Neuroscience

### Week 1: Studio Hour

- Introduction to FYS studio hour and ePortfolio
- Login to digication and set-up new portfolio
- Work on Understanding myself -> My Goals and My Skills sections

### Week 2: Exploration of the Natural Sciences

- Study of the natural world and career opportunities in science
- Getting toe know the Natural Science Discipline Activity
- Watch *Science Documentary # 1* and discussion – Jill Bolte Taylor’s Stroke of Insight

### Week 2: Studio Hour

- Finish work on Understanding Myself -> My Goals, My Skills and My Strengths
- Finish writing highlights on Understanding Myself landing page

**Week 3: A Closer Look at LaGuardia Community College**

- Campus life and virtual tour of LaGuardia
- Discuss the First Year Experience competencies (Inquiry, Problem Solving, and Integration) with a group activity
- Scavenger Group Activity

**Week 3: Studio Hour**

- Upload Gallery view of pictures collected under the scavenger activity and the college resources identified
- Upload Reflection # 1 – Science documentary on ePortfolio
- Start work on About me section (using Understanding Myself)

**Week 4: Habits of Mind, Academic Survival and Success**

- Academic survival, note taking strategies and time management strategies in the sciences
- Study resources available (Study Hall, CSTEP, API tutors etc.,)
- Hearing Vs Listening: Watch *Science documentary # 2* and listen to *Science Documentary # 2* Jim Fallon – Exploring the mind of a killer

**Week 4: Studio Hour**

- Habits of Mind for Success - Time Management co-curricular activity
- Upload About Me section and start work on *Science Documentary 2 – Reflection 2*

**Week 5: Advisement and Educational Planning**

- Remarks from NS advising team
- Review of Time Management Activity from Studio hour
- Review of Degree Audit

**Week 5: Studio Hour**

- Finalize “Personal Weekly Schedule” using template
- Upload Science documentary 2 – Reflection 2
- Start work on Academic Planning, Planning my Degree section (Degree Audit activity)

**Week 6: Advisement and Oral Communication**

- Significance of oral communication skills in science careers and Introduction to research paper writing
- Library Hour – How to write a research paper – Part I

**Week 6: Studio Hour**

- How to write a research paper – Part II

**Week 7: Career Choices**

- Discuss Science majors, career options, scholarships and transfer.
- Guest Speaker on a requested career option (chosen by popular vote)

**Week 7: Studio Hour**

- Continue work on Educational Planning section
- Pick a Research paper Topic

**Week 8: The Scientific Method – I – Workings of the Animal Mind**

- Identify the problem
- Gather the evidence
- Propose a Hypothesis
- Discuss the research paper that was assigned for reading
- Construct diagrams to illustrate the problem, and the hypothesis (*Reflection # 3*)

**Week 8: Studio Hour**

- ePortfolio and Audience activity
- Degree Audit and Educational Plan
- Suggested course sequencing for the Biology and Environmental Science Program

**Week 9: The Scientific Method – II -Workings of the Animal Mind**

- Test the Hypothesis
- Observe and Record Data
- Make a conclusion
- Discuss the remainder of the research paper assigned for reading
- Construct diagrams to illustrate the problem and the hypothesis (*Reflection # 3*)

**Week 9: Studio Hour**

- Research paper Draft # 1 due

**Week 10: Case Study: How to Read and Break Down a Research Paper**

Discuss the second assigned research paper in light of how to construct the following:

- Abstract
- Introduction
- Material and Methods
- Results
- Discussion

**Week 10: Studio Hour**

- *Reflection # 3* – Diagrams and illustrations for scientific method uploaded
- Continue ePortfolio creation

**Week 11: Researcher's talk about their research – Co-Curricular Activity**

- Educational Career Goals revisited (short term and long term plans discussion activity)
- Assessment deposit

**Week 11: Studio Hour**

- *Co-curricular # 2 reflection*
- Assessment deposit

**Week 12: Bringing it all home**

- Finalize educational plans for the upcoming semesters.
- ePortfolio showcase and presentations

**Week 12: Studio Hour**

- Reflection # 4 - Final course reflection
- Finalize education plan for next semester

**Week 13: Finals**

- # Final Research paper due
- ePortfolio showcase and presentations
- Polish and Peer Review portfolios
- Submit portfolios for evaluation

**Week 13: Studio Hour**

Summative reflection