





Faculty Member Contact Information

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1 Funded, 2 Unfunded URCA Assistants

	This position is ONLY open to students who have declared a major in this discipline.	M
	This project deals with social justice issues.	
	This project deals with sustainability (green) issues.	
X	This project deals with human health and wellness issues.	
	This project deals with community outreach.	
X	This mentor's project is interdisciplinary in nature.	I

Are you willing to work with students from outside of your discipline? If yes, which other disciplines?

- Yes, Psychology, Biology, Pre-Medicine, Physics, Engineering

How many hours per week will your student(s) be required to work in this position?

(Minimum is 6 hours per week; typical is 9)

- 9 hours

Will it be possible for your student(s) to earn course credit?

- Yes—ECE 491 (3 credit hours); only if student is an ECE student

Location of research/creative activities:

- Engineering Building

Brief description of the nature of the research/creative activity?

1) Description of the Nature of the Research Activity

This research project explores the intriguing concept of extraocular vision, or "seeing without eyes," through a structured series of training phases. The project aims to investigate whether individuals can develop the ability to perceive their surroundings without using their visual senses. This exploration is grounded in mental and physical exercises that facilitate states of relaxation and concentration, believed to be conducive to accessing intuitive perception.

Phases of Training:

Phase 1: The initial phase will be dedicated to cultivating the student researcher's intuition and direct informational perception. Through a variety of exercises, the student will attempt to learn to differentiate colors and shapes with his/her eyes closed, setting the foundational skills for extraocular perception.

Phase 2: Building on the intuition and sensory skills honed in Phase 1, this phase introduces an opaque mask to challenge and further develop the student researcher's ability to 'pierce' through visual barriers, reinforcing and advancing the perceptual capabilities acquired in the first phase.

Brief description of student responsibilities?

2) Description of the Student's Responsibilities

Lab and Home Practice:

*Participate in 1.5 hours of guided training in the university lab 3 times per week, focusing on phase-specific exercises designed to enhance intuitive visual perception.

*Commit to 3 hours of independent practice at home on non-lab days, applying and reinforcing the techniques learned during lab sessions.

Scholarly Research and Reporting:

*Allocate 2.5 hours weekly to engage in academic research, reviewing literature on extraocular vision, sensory substitution, and related neuroscientific theories.

*Compile findings and personal insights from both the practical training and academic research into detailed reports, contributing to the broader understanding of extraocular perception.

Collaboration and Reflection:

*Engage in regular discussions with peer student researchers (should there be any) and the mentor to share experiences, progress, and insights, fostering a collaborative and supportive research environment.

*Maintain a reflective journal documenting the personal journey through the training phases, noting challenges, breakthroughs, and the evolution of perceptual abilities.

URCA Assistant positions are designed to provide students with *research or creative activities* experience. As such, there should be measurable, appropriate outcome goals. What exactly should your student(s) have learned by the end of this experience?

3) Expected Outcomes for Students

By the conclusion of this research experience, students will have achieved:

1. In-depth Knowledge of Extraocular Perception: An extensive understanding of the mechanisms and theories behind extraocular vision, informed by both practical training and academic study.
2. Refined Research and Analytical Skills: Enhanced abilities in conducting scholarly research, critical thinking, and synthesizing complex information within a novel scientific domain.
3. Practical Experience in Sensory Development: Direct experience in engaging with and developing non-traditional sensory skills, pushing the boundaries of known perceptual capabilities.
4. Critical Evaluation and Innovative Thinking: The capacity to critically assess unconventional concepts and theories, encouraging a mindset that embraces innovative exploration and scientific inquiry.
5. Personal Growth and Self-Reflection: Through the reflective practice, an improved ability to introspect and assess his/her development, fostering personal growth and a deeper understanding of human potential.

This phased approach to training in extraocular vision offers students a unique, hands-on learning experience that extends far beyond traditional classroom education, engaging them in the cutting-edge exploration of human sensory capabilities.

Requirements of Students

If the position(s) require students to be available at certain times each week (as opposed to them being able to set their own hours) please indicate all required days and times:

Required Availability for Extraocular Vision Research Project Participants

For the upcoming Extraocular Vision Research Project, we are seeking dedicated students who are available to meet consistently for training sessions and collaborative research discussions. Due to the structured training phases and the need for regular, direct mentorship, students must be available during the following times each week:

Mondays: 12:30 PM - 2:30 PM

Wednesdays: 12:30 PM - 2:30 PM

Fridays: 12:30 PM - 2:30 PM

These sessions are crucial for the progression through the training phases, and each meeting will build on the last. Therefore, consistent attendance is essential for the full development of the skills and research outcomes we aim to achieve. Please ensure that you can commit to these times before applying to be part of this groundbreaking exploration into extraocular vision.

If the location of the research/creative activities involves off campus work, must students provide their own transportation?

- Location and Transportation Information for Extraocular Vision Research Project
- Please note that all activities and sessions related to the Extraocular Vision Research Project will be conducted on-campus, within our designated university laboratory settings. As such, there will be no requirement for off-campus work or travel associated with this project.
- Participants will not need to provide their own transportation for any project-related activities, as everything will take place within the accessible confines of the university. This ensures ease of participation and accessibility for all students involved, allowing us to focus fully on our groundbreaking research without the logistical concerns of off-campus travel.

Must students have taken any prerequisite classes? Please list classes and preferred grades:

- Prerequisite Class Requirements for Extraocular Vision Research Project Applicants
- To participate in the Extraocular Vision Research Project, students must meet specific academic prerequisites to ensure they are adequately prepared for the research activities and responsibilities. The required classes and minimum grades are as follows:
 - *English 101: Must have earned a grade of A.
 - *English 102: Must have earned a grade of A.
 - *Math 120 - College Algebra: Must have earned a grade of no less than B.
- These courses are essential in providing the critical thinking, analytical, and communication skills necessary for the complex nature of this research. Proficiency in English is crucial for the in-depth research, report writing, and documentation aspects of the project, while a solid understanding of College Algebra is important for the analytical and quantitative aspects of our research methodologies.
- Please ensure you have met these prerequisites before applying to the project. Verification of grades will be part of the application review process.

Other requirements or notes to applicants:

- N/A