

**Research Core-Science
2024-2025**

Proviso Mathematics and Science Academy
Instructor: Dr. Wardisiani
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Introduction: Research and inquiry are core tenets of the Academy program. Students will explore real world programs of their choice using qualitative and quantitative methods. Final assessments will be the presentation of a poster at the annual Research Symposium. A survey of research methods with an emphasis on comprehension of educational research literature, and designing and conducting classroom-based research are central to our course.

Course Purpose: The purpose of this course is to provide initial instruction on how to locate, understand, and evaluate the research literature in the student's area of interest. As an introductory survey course, the expectation is not mastery of research methodology, but rather improvement in competencies related to the critical consumption of research literature.

Course Learning Goals

- Identify and evaluate the clarity of the problem statement.
- Determine the theoretical or logical rationale of the research problem.
- Identify the specific research question under investigation.
- Determine whether the question is stated in terms agreeable to investigation.
- Establish the credibility of the research.
- Assess the theoretical perspectives and/or assumptions of the researchers.
- Identify the population(s) being studied.
- Evaluate the appropriateness of the research methodology for the study.
- Assess the clarity and consistency of the results.
- Identify the limitations of the study.
- Offer alternative interpretations of the results.
- Discuss the implications of the study in view of the strengths and weaknesses of the research.
- Distinguish between quantitative and qualitative research designs and methods.

Assessment Method:

- Abstracts Participation
- Attendance Peer Evaluation
- Bell-Ringer / Exit Slips
- Capstone Project / Symposium
- Exams Presentations
- Group Projects Professional Evaluation
- Homework Assignments Quizzes
- Internet Research project
- Journaling Lab Performance
- Oral/written review of literature
- Other

General Policies

Student e-mail Etiquette: All email correspondence to the instructor will be conducted in a professional manner. Address the recipient appropriately, using proper spelling, grammar, and punctuation. Close with your full name, day of week and time of class you meet (Example: Bob Smith, 12:20pm to 1:45pm)

Academic Honesty:

“To foster a climate of trust and high standards of academic achievement, The PMSA Science Department is committed to cultivating academic integrity and expects students to exhibit the highest standards of honor in their scholastic endeavors. Academic integrity is essential to the success of PMSA’s mission. As members of the academic community, our foremost interest is toward achieving noble educational goals and our foremost responsibility is to ensure that academic honesty prevails” Any instance of plagiarism, cheating, dishonesty or the facilitation thereof will result in a grade of 0 (zero points) for the assignment. Second offenses will be reported to the Department Head, Principal and students will fail the course (grade of F). Please refer to the PMSA student guide for academic integrity.

Attendance:

Students are expected to be present for every meeting of the classes in which they are enrolled. Only the instructor can excuse a student from a course requirement or responsibility. When conflicts or absences can be anticipated, the student should inform the instructor of the situation as far in advance as possible. For unanticipated or emergency absences when advance notification to an instructor is not possible, the student should contact the instructor as soon as possible by email, or by contacting the main office.

Technology Usage:

Proviso Township Dist. 209 High Schools is dedicated to using technology to enrich student learning and growth. However, the potential for inappropriate use always exists. In our course, Research Core – Science: technology is a critical vehicle used to develop the content and objectives of this course, therefore seriously consider the following:

- Be respectful. The class web site and/or the technology used to support our course should not become a vehicle for personal attacks on faculty, staff, students and stakeholders of D209.
- You may not post any material that is obscene, defamatory, profane, libelous, threatening, harassing, abusive, hateful, or embarrassing to another person or entity connected to D209
- Harassment and discrimination: D209 expects employees and students to follow the policies on prohibiting discrimination and harassment.