



MICRO 750 RESEARCH PROPOSAL IN MICROBIOLOGY

Course Description: An advanced course in which doctoral students prepare and defend a research grant proposal concerning the topic of their dissertation research.

Credit Hours: 3 semester hours

Course Prerequisites: 45 graded course hours; the student should have passed their qualifying exam in Microbiology and be admitted into candidacy. In addition, the student should have published one first author publication in a scientific journal.

Course Dates:

Course Times:

Course Location: The advisor's laboratory

Instructor: The student's advisor or person designated by the department chairman.

Required Text and Other Learning Resources: Publications pertaining to the area of research.

Course Overview: The PhD student will prepare and submit to each member of the Advisory Committee a written research proposal (in the form of an NIH grant application) detailing the research planned for completion of the PhD degree. The research proposal will be presented in oral form to the advisory committee and they, in private deliberation, will evaluate the feasibility and appropriateness of the proposal and advise the student accordingly.

Course Objectives: The student is to learn how to write a research grant proposal and to present his/her research in an organized fashion for evaluation.

Assignment: The written proposal should be submitted to the Advisory Committee proposal ten working days prior to the oral presentation and the committee meeting. Each committee member will grade the proposal based on an agreed upon rubric.

Grading Policy and Rubric: Each committee member will grade the proposal based on an agreed upon rubric. (See attached)

Course Policies:

University Policies:

Students with disabilities (ADA) statement: See UMC policy

Academic honesty statement: See UMC policy

Evaluation of the Research Proposal (Revised May 19, 2008)

Student's Name: _____ . Date: _____
 _____.

SCORE	CATEGORY	√	CRITERIA FOR ASSESSMENT
	SUMMARY AND SPECIFIC AIMS		Does the Summary provide a succinct, but complete description of the proposed work and its significance? Does it define the topic of the proposal? Does it describe the experimental approach and the expected results? Does it relate the proposed work to larger world of biomedical research? Is there a hypothesis or well-defined question? Is there a logical series of specific aims designed to test the hypothesis?
	BACKGROUND AND SIGNIFICANCE		Did the student present sufficient background information to make the proposed research project understandable to a scientist not in his/her field of study? Is the source material appropriately cited? Does the written narrative reflect a thoughtful review of relevant information, rather than a collection of random facts? Is the material included in the background section germane to the problem at hand? Is the importance of the proposed study related to current research needs or gaps in the existing knowledge base?
	PRELIMINARY DATA		Is the rationale for performing the indicated experiments presented? Are the experimental methods presented in sufficient depth to allow the reader to assess their appropriateness? Were the necessary positive and negative controls performed? Are the results presented in a clear and complete manner? If required, was the correct statistical analysis performed? Is the significance of the results presented?

EXPERIMENTAL DESIGN AND METHODS		Is the rationale for performing the indicated study clearly presented for each specific aim?
		Are the experimental methods presented in sufficient detail to allow the reviewer to judge the chances of success?
		Were the necessary positive and negative controls performed?
		Are the expected results presented in a clear and complete manner?
		If required, will the correct statistical analysis be performed?
		Is the significance/interpretation of the expected results presented?
		Are pitfalls, solutions to problems, and future directions clearly presented?
GENERAL FEATURES AND BIBLIOGRAPHY		Is the Bibliography complete?
		Is the Bibliography presented in an appropriate format?
		Is the Bibliography free of typographical errors?
		Is it composed of both primary and secondary (i.e., reviews) references?
		Is completion of the proposed aims feasible in a 2 - 3 year time period?
		Is the proposal free of grammatical and typographical errors?
OVERALL SCORE		

Directions: If the student meets the indicated criteria, check the box to its left. Based on the scoring rubric below, assign a score for the student's performance in each category.

- 5 OUTSTANDING:** Meets all criteria in a category
- 4. VERY GOOD:** Meets all but one criteria in a category
- 3. GOOD:** Meets all but two criteria in a category.
- 2. POOR:** Fails to meet 3 criteria in a given category
- 1. UNACCEPTABLE:** Fails to meet 4 or more criteria in a category

Overall Score:/Passing Score: The overall score must be greater than or equal to 3.00 based on performance in all 5 categories.