

## Term Information

Effective Term Summer 2016

## General Information

Course Bulletin Listing/Subject Area Biophysics  
Fiscal Unit/Academic Org Division Of Sensory Biophysics - D0321  
College/Academic Group Arts and Sciences  
Level/Career Graduate  
Course Number/Catalog 6000  
Course Title Topics in Research Proposal Writing  
Transcript Abbreviation Research Writ  
Course Description Course is designed to be a "writing lab" where students produce and critique research writing. Primarily, the focus will be proposal writing with NIH/NSF grant-writing strategies. Additional time will be devoted to developing manuscripts and poster presentations.  
Semester Credit Hours/Units Fixed: 1

## Offering Information

Length Of Course 4 Week (May Session)  
Flexibly Scheduled Course Never  
Does any section of this course have a distance education component? No  
Grading Basis Letter Grade  
Repeatable No  
Course Components Workshop, Lecture  
Grade Roster Component Lecture  
Credit Available by Exam No  
Admission Condition Course No  
Off Campus Never  
Campus of Offering Columbus

## Prerequisites and Exclusions

Prerequisites/Corequisites N/A  
Exclusions

## Cross-Listings

Cross-Listings N/A

## Subject/CIP Code

Subject/CIP Code 26.0203  
Subsidy Level Doctoral Course  
Intended Rank Masters, Doctoral

## Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

## Course Details

### Course goals or learning objectives/outcomes

- NIH/NSF grant writing skills
  - Presentation Skills
  - Scientific Manuscript Writing Skills
  - Research Proposal Writing Skills

### Content Topic List

- Grant-Writing
  - Scientific Manuscript Writing
  - Presenting Research
  - Peer Reviewing Research

## Attachments

- Biophysics6000Syllabus.docx: Syllabus  
*(Syllabus. Owner: Mays, LaKisha Monique)*

## Comments

- see email *(by Hogle, Danielle Nicole on 09/09/2015 01:48 PM)*
- Please select another number since 6702 is already used for another course "Advanced Experimental Methods in Biophysics." *(by Vankeerbergen, Bernadette Chantal on 06/15/2015 12:44 PM)*
- Returned so that grading scheme can be revised. *(by Breitenberger, Caroline Anna on 05/11/2015 10:08 AM)*
- Biophysics Graduate Studies Committee realizes that there was a need to strengthen the research writing skills of our current students. *(by Mays, LaKisha Monique on 05/08/2015 01:37 PM)*

## Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Mays, LaKisha Monique	05/08/2015 01:37 PM	Submitted for Approval
Revision Requested	Breitenberger, Caroline Anna	05/11/2015 10:08 AM	Unit Approval
Submitted	Mays, LaKisha Monique	05/11/2015 10:11 AM	Submitted for Approval
Approved	Breitenberger, Caroline Anna	05/25/2015 10:41 PM	Unit Approval
Approved	Fink, Steven Scott	05/26/2015 01:49 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	06/15/2015 12:45 PM	ASCCAO Approval
Submitted	Mays, LaKisha Monique	06/15/2015 03:08 PM	Submitted for Approval
Revision Requested	Breitenberger, Caroline Anna	06/15/2015 04:01 PM	Unit Approval
Submitted	Mays, LaKisha Monique	06/15/2015 04:38 PM	Submitted for Approval
Approved	Breitenberger, Caroline Anna	06/15/2015 08:09 PM	Unit Approval
Approved	Fink, Steven Scott	06/16/2015 08:55 AM	College Approval
Revision Requested	Hogle, Danielle Nicole	09/09/2015 01:48 PM	ASCCAO Approval
Submitted	Mays, LaKisha Monique	09/15/2015 02:34 PM	Submitted for Approval
Approved	Breitenberger, Caroline Anna	09/21/2015 03:27 PM	Unit Approval
Approved	Fink, Steven Scott	09/22/2015 02:06 PM	College Approval
Pending Approval	Nolen, Dawn Vankeerbergen, Bernadette Chantal Hanlin, Deborah Kay Jenkins, Mary Ellen Bigler Hogle, Danielle Nicole	09/22/2015 02:06 PM	ASCCAO Approval



Biophysics 6000  
Topics in Research Proposal Writing  
MWF 10:30-11:30 AM  
May Session  
Credit Hours: 1  
Biological Sciences Bldg., Room # 668

**Instructor:**

Dr. Will Ray  
The Research Institute at Nationwide Children's Hospital  
700 Children's Drive  
Columbus, Ohio 43205  
Phone: (614) 355-5645  
FX: (614) 355.2728  
Office Hours: Call for appointment time.

**Course Coordinator:**

Lakisha M. Mays  
113 Biological Sciences Bldg.  
484 W. 12<sup>th</sup> Ave.  
Columbus, OH 43210  
Phone: 614-292-5626

**Required Text:** Instructor will provide selected readings.

**Grading Information**

20 Points      Class Participation/Attendance  
40 Points      Research Presentation Analysis  
40 Points      Peer Review Research

**Maximum Points: 100**

**Grading Scale:**

Course is graded as letter grade (A-E)

93 - 100 (A)	90 - 92.9 (A-)	87 - 89.9 (B+)	83 - 86.9 (B)
80 - 82.9 (B-)	77 - 79.9 (C+)	73 - 76.9 (C)	70 - 72.9 (C-)
67 - 69.9 (D+)	60 - 66.9 (D)	Below 60 (E)	

**Format of Instruction**

Course content varies weekly because course involves students engaging in review and discussion of their research work. Class meeting times are 3 hours per week of during May session.

### **Course Description:**

Course is designed to be a "writing lab" where students produce and critique research writing. Primarily, the focus will be proposal writing with NIH/NSF grant-writing strategies. Additional time will be devoted to developing manuscripts and poster and oral presentations.

### **Course Goals/Student Learning Objectives:**

This course will help you with developing:

- NIH/NSF Grant Writing Skills
- Presentation Skills
- Scientific Manuscript Writing Skills
- Research Proposal Writing Skills

### **Assignments:**

*Class Participation/Discussion:* Students are expected to actively participate in group work and discussions throughout the course.

*Week One Lecture Topic:*

#### **Grant Writing**

Learn writing strategies for developing effective NIH/NSF grant proposals.

**Homework:** Review selected readings prior to class.

*Week Two Lecture Topic:*

#### **Scientific Manuscript Writing**

Learning how to adhere to the required structure for various journal(s) for submitting research publications.

**Homework:** Review selected readings prior to class. Draft a summary about your research topic prior to our next class session.

Sections to include in paper:

#### **Oral/Poster Presentation Sections**

**Introduction:** Background of research problem and hypothesis.

**Methods:** Procedures for testing hypothesis. Include equipment used and statistical procedures.

**Results:** Summary of research outcomes. Include both verbal, statistical results, and tables.

**Discussion:** Interpretation of Research Results.

*Week Three Lecture Topic:*

#### **Presenting Research**

Students will learn how to synthesize their research to present either oral or poster presentations at national conferences.

**Homework:** Bring a research paper draft to our next class. Review selected readings prior to class.

*Week Four Lecture Topic:*

**Peer Reviewing Research:**

Students will evaluate research writing of other students in course and provide critical feedback.

**What to include in your critique**

- Praise what works well in the draft; point to specific passages.
- Comment on large issues first (Are important and interesting ideas presented? Is the topic clear and interesting? Is there a clear focus? Is the draft effectively organized? Is the sequence of points logical? Are ideas adequately developed? If appropriate, is the draft convincing in its argument? Is evidence used properly?). Go on to smaller issues later (awkward or confusing sentences, style, grammar, word choice, proofreading).
- Comment on whether the introduction clearly announces the topic and suggests the approach that will be taken; on whether ideas are clear and understandable.
- Be specific in your response (explain where you get stuck, what you don't understand) and in your suggestions for revision. And as much as you can, explain why you're making particular suggestions.
- Try describing what you see (or hear) in the paper--what you see as the main point, what you see as the organizational pattern.
- Identify what's missing, what needs to be explained more fully. Also identify what can be cut.

**How to criticize appropriately**

- Be honest (but polite and constructive) in your response
- Don't argue with the author or with other respondents.

**Homework:** Submit a two-page paper documenting your analysis of the author's research paper.

**Academic Misconduct:**

"It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>."

**Disability Services:**

“Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.”