



# Course Approval Form

For approval of new courses and deletions or modifications to an existing course.

registrar.gmu.edu/facultystaff/curriculum

### Action Requested:

Create new course     Inactivate existing course

Modify existing course (check all that apply)

Title     Credits     Repeat Status     Grade Type

Prereq/coreq     Schedule Type     Restrictions

Other: \_\_\_\_\_

### Course Level:

Undergraduate

Graduate

College/School:  Department:

Submitted by:  Ext:  Email:

Subject Code:  Number:  Effective Term:  Fall  Spring  Summer Year

(Do not list multiple codes or numbers. Each course proposal must have a separate form.)

Title: Current  Banner (30 characters max including spaces)

New

Credits:  Fixed  Variable  or  to

Repeat Status:  Not Repeatable (NR)  Repeatable within degree (RD)  Repeatable within term (RT) Maximum credits allowed:

Grade Mode:  Regular (A, B, C, etc.)  Satisfactory/No Credit  Special (A, B C, etc. +IP)

Schedule Type:  Lecture (LEC)  Lab (LAB)  Recitation (RCT)  Internship (INT)

Independent Study (IND)  Seminar (SEM)  Studio (STU)

Prerequisite(s):  Corequisite(s):

Instructional Mode:  100% face-to-face  Hybrid: ≤ 50% electronically delivered  100% electronically delivered

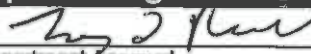
Restrictions Enforced by System: Major, College, Degree, Program, etc. Include Code.

Are there equivalent course(s)?  Yes  No If yes, please list \_\_\_\_\_

### Catalog Copy for NEW Courses Only (Consult University Catalog for models)

Description (No more than 60 words, use verb phrases and present tense)	Notes (List additional information for the course)
Intensive practice in biological science writing. Science Writing will fulfill the University's writing intensive requirement as well as prepare Medical Laboratory Science Students for the types of writing that they will encounter in the industry including but not limited to writing Resumes, Grants, Cover letters, and etc.	
Indicate number of contact hours: _____ Hours of Lecture or Seminar per week: <input type="text" value="1"/> Hours of Lab or Studio: <input type="text"/>	
When Offered: (check all that apply) <input checked="" type="checkbox"/> Fall <input type="checkbox"/> Summer <input checked="" type="checkbox"/> Spring	

### Approval Signatures

  Department Approval Date

College/School Approval Date

If this course includes subject matter currently dealt with by any other units, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.

Unit Name	Unit Approval Name	Unit Approver's Signature	Date

### For Graduate Courses Only

# Course Proposal Submitted to the Curriculum Committee of the College of Science

## **1. COURSE NUMBER AND TITLE:**

### **Course Prerequisites:**

### **Catalog Description:**

Intensive practice in biological science writing. Science Writing will fulfill the University's writing intensive requirement as well as prepare Medical Laboratory Science Students for the types of writing that they will encounter in the industry including but not limited to writing Resumes, Grants, Cover letters, and etc.

## **2. COURSE JUSTIFICATION:**

### **Course Objectives:**

Outline the development of disciplinary writing strategies and identify how those developments shape, and are shaped by, disciplinary structures;

- Recognize normative conventions governing scientific writing and their influence on the organization, use, and distribution of scientific knowledge and information;
- Communicate specialist knowledge and information to non-specialist audiences;
- Study, critique and apply strategies used in science popularizations;
- Examine the role of science in public communication and debate.

### **Course Necessity:**

The Writing intensive requirement for Medical Technology students is incorporated into BIOL 453 Immunology Lab. The Biology Program felt that this was an inappropriate place for such a requirement as it was not effectively taught. In order to remedy this problem the Biology Program is suggesting that the Writing Intensive requirement be removed from BIOL 453 and receive its own class where the focus can be on writing.

### **Course Relationship to Existing Programs:**

### **Course Relationship to Existing Courses:**

**3. APPROVAL HISTORY:**

**4. SCHEDULING AND PROPOSED INSTRUCTORS:**

**Semester of Initial Offering:**

**Proposed Instructors:**

**5. TENTATIVE SYLLABUS:**

Scientific Writing  
MLAB 200  
Fall 2014 Syllabus

Instructor Anne Verhoeven

2 credits

Meets 2 hours per week

Week Of	Exercise	Description	Homework	Points
Week 1	Syllabus, Introduction to different types of writing			
Week 2	Analysis of Paper: Reading for Understanding	1. Students dissect the results of a journal article: at the end of class students will be given the paper to read at home and come up with an abstract		
Week 3	Validation of sources	1. Introduction between myth and fact 2.What is a credible source? 3.Students will come up with a common scientific myth and will try to validate or rebuke it. In order to complete this assignment students will be required to write at least 1 page essay on the myth, who the source is and where it is scientifically true or not. Students will also include their sources on a separate page.	Abstract	5
Week 4	Writing a Grant or Proposal	1. Introduction to Grant/Proposal writing 2. Using OSCARs undergraduate research proposal as a guide students will come up with a scientific question that they would like to explore	Science Myth question	10

Week 5	Continuation of the prior week	1. Redefining your grant question 2. How to do a literature search	Students will come to class with a question that they would like to explore and share sources that will help them answer their question	15
Week 6	Cover letter, Introduction	1. Discuss what a cover letter is 2. Discuss Introduction	Annotated Bibliography	20
Week 7	Research design, time management	1. Critic of Proposal sections 2. Discussion of Research design and time management	Draft of Proposal sections Cover letter, Introduction	20
Week 8	Results, How will your results be disseminated in your field	1. Critic of Research design and time management 2. Describe the anticipated outcomes, products and/or results of your project and how they will contribute to the scholarly community.	Draft of proposal sections research design and time management	20
Week 9	Budget	1. Critic of Results and Dissemination 2. Justification of Budget	Draft of proposal sections Results, and Dissemination	20
Week 10	Biograph	1. Critic of Budget	Draft of proposal section: Budget	
Week 11	Standard Operating Procedures (SOP)	1. Critic of Biography 2. We will go over what an SOP is and how one is made		100
Week 12	How to write a Memo, Email	1. Critic of SOP	SOP Final Draft	SOP (20) Final draft (100)
Week 13	How to write a Resume	1. Introduction to writing a Resume: 2. Student critic of others resume	1. Final copy of proposal due 2. Bring in Resume	200
Week 14	Proposal Presentations	Presentations	2. Email due 1. Revised Resume	100

## Course Goals

- Outline the development of disciplinary writing strategies and identify how those developments shape, and are shaped by, disciplinary structures;
- Recognize normative conventions governing scientific writing and their influence on the organization, use, and distribution of scientific knowledge and information;
- Communicate specialist knowledge and information to non-specialist audiences;
- Study, critique and apply strategies used in science popularizations;
- Examine the role of science in public communication and debate.

### *Formal Writing Assignments*

Science Writing is a survey course. As such, the course approaches the kinds of documents you will write as genres (e.g., the proposal, the research article). However, we will look beyond genres at the contexts — "bigger picture" — that influence, and are influenced by, the interaction of language, meaning, and culture. The course, then, is not simply about teaching you the mechanics of producing certain documents, rather to have you analyze and incorporate the ways in which creating meaning and understanding are the products of individual and collective effort.

### Resources:

<https://cgi.duke.edu/web/sciwriting/index.php?action=about>

Deborah Blum and Mary Knudson, eds., *A Field Guide for Science Writers*

Jerome Groopman and Jesse Cohen, eds., *The Best American Science Writing 2010*

### Articles:

The Science of Scientific Writing: Judith Swan's article about structuring sentences to make them clear and to help readers follow your logic

Scitable (from Nature Education) guide to effective writing: explains how to structure sentences so that their message is clear and when to use passive voice and when not to

### Webinar/videos:

BiteSize Bio has several webinars on communication and writing.

Nature Education (Scitable) offers English communication for scientists, written by a French engineer who has given workshops on this topic for years. It covers general communication, manuscripts, and presentations, and includes multiple-choice tests.

Nuts and Bolts Guide to College Writing: Excellent explanation of how to plan and connect paragraphs thorough discussion of style: clarity, concision, and rhetorical techniques

The Elements of Style: online version of the classic guide to composition

### Column/series:

Grammar Girl: covers all sorts of grammar issues, includes a search function, explains rules and the exceptions to them

### Forums:

If you have a specific question, try asking the users of the "Paper and Grant Writing, Publishing and Presentation" board on BioForum. Questions are usually answered within a day

II. GRADING POLICY: The grade you receive will be based on 500 points earned through a combination of participation, homework assignments and 3 laboratory reports described below. Your lab point total will be based on your performance in the following areas:

Attendance/participation	80 total points
Homework	430 total points
Presentation	100 total points
Total Points	620 total points

**Final grade %                      TOTAL EARNED POINTS/ 500 points**

GRADING SCALE: 90-100% = A, 80-89% = B, 70-79% = C, 60-69% = D, < 60% = F

**NOTE:** At the instructor's discretion, the +/- grading system may be applied to the above grading scale.

- A. Attendance and completion of each class period is worth 5 points.** One points will be deducted from each exercise for each of the following infractions: 1) You are not present at the start of the class period, 2) you are not prepared for the class exercises 3) Non participation with the class exercise

**B. MISSING 3 OR MORE CLASS WILL CAUSE THE STUDENT TO RECEIVE AN AUTOMATIC F IN THE CLASS.**

**B. Each student must do his/her homework individually.** Although we gather data in groups, each student must do the data analysis and written responses independently. **Violation of this rule will be considered a violation of the GMU honor code. This applies to both the laboratory reports and the homework.** Cheating will not be tolerated and it is your duty as a GMU student to report any violations of the Honor Code to your instructor.

### **WRITING-INTENSIVE REQUIREMENT**

This course fulfills the writing-intensive requirement for the BS degree with a Major in Medical Technology as mandated by the Faculty Senate and the GMU Board of Visitors. It does so through a combination of homework assignments, most of which require written responses to questions posed at the end of each exercise, and through the research paper. In the research paper you will experience the writing process in much the same way as scientists do. That is, you iterate through several cycles of writing, criticism, and revision.