

Syllabus
English 4021

- I. Course Title** : *Technical Report Writing for Biology*
- II. Code** : *English 4021*
- III. Credits per semester** : *Three*
- IV. Contact Hours** : *Forty five hours per semester*
- V. Pre-requisites** : *INGL 3101, 3102 or INGL 3104, or Advanced Placement*

VI. COURSE DESCRIPTION:

Introduction to Technical Report Writing: This course is designed to provide students the skills for writing reports that require research on topics related to biology. The analysis of articles from journals and magazines will be emphasized.

VII. COURSE OBJECTIVES:

A. General Objective

This course will provide students the opportunity to analyze and write documents in biology applying five characteristics of technical writing: accuracy, appropriateness, clarity, coherence, and conciseness.

B. Specific Objectives

By the end of the course, the students will be able to write documents about biology topics using the characteristics of technical writing with a 70% of proficiency. The student will be able to:

1. CHARACTERISTICS OF TECHNICAL WRITING

- 1.1. Compare and contrast specific aspects of the writing style between technical documents and other types of literature such as essay writing and short stories among others.

- 1.2. Enumerate and explain the ABC format in technical documents according to Pfeiffer.
- 1.3. Discuss copyright laws and explain rules on how to avoid plagiarism.
- 1.4. Define the characteristics of technical writing: accuracy, appropriateness, clarity, coherence, and conciseness.
- 1.5. Illustrate the characteristics of technical writing using original discourse.
- 1.6. Write clear and correct sentences.
- 1.7. Plan group work according to specific guidelines.
- 1.8. Conduct peer-review sessions using checklists.
- 1.9. Identify the characteristics of the different types of audiences.
- 1.10. Analyze research articles that present clear scientific writing.
- 1.11. Revise documents several times to improve style and language accuracy.
- 1.12. Practice correcting and re-writing sentences containing technical writing flaws.
- 1.13. Construct original sentences, paragraphs, and documents applying the characteristics of technical writing.
- 1.14. Use appropriate word choice according to technical writing principles.
- 1.15. Use numbers, acronyms, and abbreviations correctly.
- 1.16. Avoid the use of sexist, ageist, and biased language against people with disabilities.

2. READING

- 2.1. Skim and scan documents to answer comprehension questions.
- 2.2. Use strategies such as formulating questions and writing notes along reading sessions.
- 2.3. Match sub-titles of scientific papers with appropriate contents.

3. GRAPHICS

- 3.1. Identify the different types of graphics.
- 3.2. Determine the advantages of using graphics.
- 3.3. Explain the best location of graphics within a text.
- 3.4. Identify the parts of legends in pictures, diagrams, tables and graphs

4. WRITING

In writing original discourse students will:

- 4.1. Identify and write the four types of sentences: declarative, interrogative, imperative, and exclamatory.
- 4.2. Construct original declarative, interrogative, and imperative sentences.
- 4.3. Identify and write sentences using the four patterns of sentence structure: simple, compound, complex and compound complex.
- 4.4. Begin sentences in varied forms: adverbs, nouns, phrases, subordinating conjunctions, and conjunctive adverbs, among others.
- 4.5. Identify the simple subject and the main verb in sentences.
- 4.6. use parallel structures to make sentences appealing
- 4.7. Write ideas using different sentence lengths to avoid choppiness.
- 4.8. Identify topic sentences in paragraphs.
- 4.9. Construct topic sentences.
- 4.10. Write unified and coherent paragraphs
- 4.11. Write paragraphs showing description, process, explanation, and comparison and contrast patterns.
- 4.12. Write varied documents such as resumes, letters, laboratory or trip reports, memoranda, critiques, petitions, brochures and/or informational documents, abstracts and proposals.

5. SYNTHESIS

- 5.1. Summarize and paraphrase information.
- 5.2. Translate information from essay style to technical writing format.

- 5.3. Write a proposal presenting an original idea applying the principles of technical writing and correct language usage.
- 5.4. Write word and sentence outlines for organizing information
- 5.5. Prepare a bibliography according to the American Psychological Association (APA).

6. LANGUAGE

- 6.1. Identify the parts of speech: nouns, pronouns, verbs, adjectives, adverbs, conjunctions, prepositions, and interjections.
- 6.2. Explain the functions of the parts of speech
- 6.3. Use the parts of speech correctly.
- 6.4. Use punctuation and capitalization rules correctly.
- 6.5. Spell words correctly.
- 6.6. Place modifiers in the correct place in sentences.

7. SENTENCE STRUCTURE

Student will:

- 7.1. Use variety of phrases in their written discourse.
- 7.2. Avoid writing dangling modifiers
- 7.3. Develop paragraphs using different logical patterns of paragraph organization such as cause and effect, process, compare and contrast, and explanatory.
- 7.4. Identify language flaws in technical writing such as wordiness, noun clusters, lack of parallel structures, misplaced modifiers, incorrect use of the parts of speech
- 7.5. Identify the different parts of technical documents such as memos, trip reports, research reports, proposals, and reviews of literature.

- 7.6. Write a memo, a job application letter, a trip report and a literature review following guidelines
- 7.7. Identify active and passive subjects in sentence.
- 7.8. Write sentences using correct verb structures in passive voice sentences.
- 7.9. Choose the precise words avoiding colloquial jargon
- 7.10. Construct bibliographic entries following the APA style

C. Affective Objectives

At the end of the semester students will develop

1. Appreciation for having access to computers, Blackboard and the World Wide Web in the teaching learning process.
2. A sense of independence and personal responsibility in their learning process.

VIII. COURSE CONTENTS

- A. Technical Reading
 1. differences between technical and literary reading
 2. characteristics of technical discourse
 3. characteristics of literary discourse
 4. previewing, scanning, and anticipating information
 5. reviewing peer writing giving positive feedback and suggestions

- B. Writing
 1. Characteristics of technical writing: accuracy, appropriateness, clarity, coherence and conciseness.
 2. the four types of sentence structure: simple, compound, complex and compound-complex
 3. phrases: appositive, gerund, appositive, participial, and prepositional
 4. acronyms and abbreviations
 5. active and passive voice sentence structure
 6. Phrases: prepositional, infinitive, appositive, gerunds, and participial.
 7. Use punctuation marks correctly: commas, semi-colons, periods, parentheses, etc.

C. Audience types

1. experts
2. technicians
3. managers
4. laypersons

D. Types of technical documents

1. Letters and memoranda
2. E-mails and other digital documents
3. Abstracts
4. Research reports
5. Other reports (trip, progress, and laboratory)
6. Feasibility studies and/or proposals

E. Elements of Technical Documents

1. Headings: titles, dates, main topics
2. Subheadings: supporting topics
3. Table of contents
4. Legends in tables, graphs and figures
5. Title page
6. Abstracts
7. Bibliography APA style

F. Reports

1. Definition and purpose of a reports
2. Research steps in writing a report

G. Oral presentations

1. Guidelines for presenting oral presentations effectively.
2. Effective use of audio visual materials in presentation; Power Point, pictures, graphics, among others.

H. Library Instruction

Students will use library resources as follows:

1. Use dictionaries in the library
2. Read articles from peer-reviewed articles from library resources
3. Request assistance from PRODAB personnel
4. Prepare a bibliography using APA style

I. Technological Tools

Smart Board, data projector, computers, picture projector (if available), Learning Platforms (such as Moodle, Blackboard, etc.), Google documents or any other type of digital document.

VIII. Schedule

Number of hours

Analyzing characteristics of technical writing	10
Answering exercises in language usage and style	12
Reading technical documents	04
Writing original discourse	14
Affective objectives	02
Testing	<u>03</u>
Total	45

IX. Learning Strategies

The professor will use conferences, class discussions, peer review sessions, written language exercises as learning strategies. In addition, the **Moodle** online platform will provide support for students' work in class.

X. EVALUATION CRITERIA

The grade will be given according to the following criteria:

1/4 Partial Test(s)

1/4 Class participation, assignments, quizzes. (*Some quizzes may be unannounced)

1/4 Reports, technical writing documents (* some may be done in class or assigned)

1/4 Final Project or Test

*For every one instructional credit hour in class, University of Puerto Rico in Ponce students are recommended to spend at least two hours out-of-class, studying, reading, writing, researching, and working on projects, providing community service or community service learning, and preparing for tests.

XI. Grading Criteria

100%	90%	A
89%	80%	B
79%	70%	C
69%	60%	D
59%	0%	F

XII. Bibliography

A. Textbook

Pfeiffer, W. S. 2011. Pocket Guide to Technical Communication. New York:Pearson. (Original work published 1998). (4th editions may be accepted - inform professor)

1. Perelman, L. C., Barrett, E., & Barrett, J. 1998. The Mayfield Handbook of Scientific Writing . Paradis: Mayfield Publishing Company (ONLINE)
2. Alley, Michael. 1996. The Craft of Scientific Writing. 3rd Ed. Springer Science & ...Business Media, Inc., New York, N.Y. 225 pp.
3. McMillan, V.E. 1997. *Writing Papers in the Biological Sciences*. 2nd Ed. Bedford Books, Boston 197 pp.

B. Other References

Professional Journals
Bioscience Biotechnology
Biology Digest
Caribbean Journal of Science

Natural History
Scientific American
Science News
Discover Ecology-Natur

NOTE:

Un-announced and announced quizzes may be given from material from the Pfeiffer Guide and/or from the various websites included in the tentative schedule

- Flash Quizzes for English Study <http://a4esl.org/q/f/>
- http://college.cengage.com/devenglish/wong/sentence_essentials/1e/students/chapter/chapter04.html
- Practice tests http://college.cengage.com/devenglish/resources/writing_ace/students/index.html
- Check Purdue's site for help with grammar and mechanics <http://owl.english.purdue.edu/owl/resource/678/01/>
- Check examples of scientific articles at <http://caribjsci.org/>
- Free Online Webbook: Technical Writing, by David McMurrey <http://www.prismnet.com/~hcxres/textbook/>

SPECIAL NOTE: LAW 51

Those students with special needs and receiving service from the Office of Vocational Rehabilitation should see the professor at the beginning of the semester to facilitate their teaching learning process.

INSTITUTIONAL AND ENGLISH DEPARTMENT GOALS ALIGNMENT

According to Certification Num. 38-2009-2010 issued by the Academic Senate of the University of Puerto Rico in Ponce, the vision, mission, and institutional and departmental goals are included.

<i>NSTITUTIONAL VISION CERTIFICATION 2006-2007-52 Academic Senate</i>	
<p>The University of Puerto Rico in Ponce aspires to be the institution, which most effectively promotes the development of its students' potentials so that they may make significant contributions to the well-being of Puerto Rico.</p>	
<i>INSTITUTIONAL MISSION CERTIFICATION 2006-2007-51 Academic Senate</i>	
<p>The University of Puerto Rico in Ponce is a teaching institution dedicated to the intellectual, humanistic, scientific, cultural, and ethical growth of its students. It is devoted to the integral development of citizens and professionals capable of contributing to a global society as critical, creative, and honest leaders committed to continuous learning and community service. It fosters equal access, academic rigor, enriching educational activities, and quality support services, which contribute to the formation of graduates with a profile of academic excellence. In all its undertakings, the University of Puerto Rico in Ponce promotes a democratic environment supportive of academic freedom, excellence, integrity, respect, tolerance, creativity, and research.</p>	
<i>INSTITUTIONAL GOALS</i> CERTIFICATION 2008-2009-59 Academic Senate	<i>DEPARTMENTAL GOALS</i>
<ol style="list-style-type: none"> 1. To develop professionals who possess the knowledge, skills, and dispositions necessary to contribute responsibly to their social, cultural, and environmental surroundings. 2. To offer and develop baccalaureate, associate, and transfer programs and other enriching educational experiences in response to the needs of society. 3. To cultivate knowledge through creative activities, research, and dissemination. 4. To provide professional development opportunities to faculty and administrative personnel in order that they may contribute to the enhancement of institutional quality. 	<ol style="list-style-type: none"> 1. To develop the basic skills in the four language arts (reading, writing, speaking, and listening). 2. To develop critical thinking skills. 3. To create awareness on the importance of mastering English. 4. To develop human appreciation and ethical values. 5. To prepare students in transfer programs with the necessary courses to transfer to other local or foreign institutions. 6. To provide a competent curriculum. 7. To provide students with the mechanisms for self-learning.

ENGL 4021
TENTATIVE SCHEDULE

This schedule includes web-links to study and practice independently. Check Moodle.

Week I

- Introduction to the course, Students introduce each other
- Discussion of syllabus, Professor and students' expectations; Explanation of service learning project
- Introduction and analysis of parts of the textbook: Pocket Guide to Technical Communication

Week II

- Group exercise as introduction to technical writing (Pfeiffer Pages 64-67)
- Definition of technical writing Pages 1-2, Types of Writing (Page 2)
- Characteristics of Technical Writing
- Sample showing the characteristics <http://www.mhhe.com/mayfieldpub/tsw/eff-char.htm>
- Writing for an 'Anglo' audience <http://owl.english.purdue.edu/owl/resource/651/01/>
- Mini field research about an assigned topic

Week III

- Audience: Pfeiffer Pages 3-9 (Steps 1-5), Accuracy :Pfeiffer Pages 14-19, Outline(Steps 7-9)
- Chapter 2: Achieving order and Design
- Pages 23-31 The ABC Format
- Page Design Pages 31-38
- Video (Assigned or in class) & Writing a report about the main topic(s) discussed in video

Week IV

- Writing Reports (example on page 27) (formal report Pages 91-107)
- Characteristics of Technical Writing: Achieving Clarity, Unity and Coherence
- Document coherence : Page Design Pages 31-38

Week V

- Test 1
- Accuracy: 155-158, Biased language: Pfeiffer pages 212-215
- Sentence coherence Pfeiffer 210-211 & Paragraph coherence Pfeiffer 201-202
- <http://www.mhhe.com/mayfieldpub/tsw/p-cohere.htm>

Week VI

- Introduction to E-mails (Pfeiffer Pages 40-41), Letters (43-63, 191-193), Memos (42-43,197)
- Cover Letter and Resume (Pfeiffer Pages 52-63)
- Job application letter <http://www.mhhe.com/mayfieldpub/tsw/l-jobapp.htm>

Week VII

- Applying grammar and mechanics concepts to technical documents (To be taught incidentally)
- Pfeiffer Appendix: Parts of speech 203-204, Sentence Structure 209-211
- Information on parts of speech <http://www.mhhe.com/mayfieldpub/tsw/parts.htm>
- Choose the best conjunction <http://a4esl.org/q/f/z/zy57mbw.htm>
- Use of Commas <http://www.mhhe.com/mayfieldpub/tsw/commas.htm> , Pfeiffer pp171-173
- <http://www.mhhe.com/mayfieldpub/tsw/esl-link.htm>
- Improve sentence construction <http://www.mhhe.com/mayfieldpub/tsw/sentence.htm>
- Sentence Punctuation Patterns <http://owl.english.purdue.edu/owl/resource/604/01/>

Week VIII

- Feasibility Study
- General Guidelines for Graphics <http://www.mhhe.com/mayfieldpub/tsw/grf-gen.htm>
- Graphics -See Index guide Pfeiffer 232

Week IX

- Manual for Scientific Writing <http://web.me.com/jamarimutt/Manual/Welcome.html>
- Steps in the research process Pfeiffer 9-18
- Bibliography
- Plagiarism
- Revising and Editing
http://www.brandeis.edu/writingprogram/davisgrant/writingassignments/biology/bio_revisingediting.pdf

Week X

- Oral Presentations <http://www.mhhe.com/mayfieldpub/tsw/ora-rep.htm>
- Introduction to oral presentations Pfeiffer 128-141 (Chapter 4)
- Service Learning Activity

Week XI to Week XIII

- Oral Presentations on research topics (See Index page 234 for pages to consult on OP)

Week XIV

- Conclusion on technical writing style

Week XV

- Portfolio and Proposal or Progress Report