

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
ENG 114 – SCIENTIFIC WRITING (3 CR.)**

Course Description

Develops rhetorical expertise in the conventions of scientific argumentation and writing through reading scientific literature and composing scientific writings. Introduces plain style and common genres of scientific writing. Develops the ability to communicate scientific knowledge to diverse audiences. Guides the student in achieving typical voice, tone, style, audience, and content in formatting, editing, and graphics. Lecture 3 hours per week.

General Course Purpose

To provide students with the knowledge and skills needed to write for the professional sciences.

Course Prerequisites/Co-requisites

ENG 111 or equivalent.

Course Objectives

I. Compose Typical Scientific Prose

Upon completing the course, students will be able to:

- employ conventions of plain style scientific prose
- employ APA style documentation
- control use of scientific and technical terminology
- control use of graphics and equations

II. Compose Typical Scientific Documents

Upon completing the course, students will be able to:

- identify standard scientific genres
- compose standard scientific genres
- produce 15-20 pages of finished, graded text, including at least one documented essay.

III. Audience Awareness

Upon completing the course, students will be able to:

- evaluate the needs of diverse science audiences, both professional and public
- tailor prose appropriate to each audience
- translate written scientific knowledge between various audiences

IV. Rhetoric of Science

Upon completing the course, students will be able to:

- describe the role of writing and communication in the conduct of modern science
- explain the writing process as it relates to the conduct of science
- demonstrate an appropriate personal writing process through the production of various science related documents
- demonstrate rhetorical control over claims of scientific truth
- identify common fallacies of scientific reasoning

V. Written Scientific Argument

Upon completing the course, students will be able to:

- Establish a research question and form a hypothesis
- design and conduct a study to test the hypothesis
- employ scientific reasoning to evaluate the hypothesis and construct a claim
- compose an IMRAD style article to communicate the results
- conform to the conventions of written scientific argumentation

VI. Collaboration and Research

Upon completing the course, students will be able to:

- describe the collaborative nature of scientific communication
- develop ease and familiarity with shared writing projects
- successfully produce a collaborative scientific writing
- demonstrate the ability to locate and retrieve outside sources
- demonstrate ethical and accurate use of outside sources
- compose a text of a minimum of 1,000 words that incorporates documented research

VII. Scientific Presentation

Upon completing the course, students will be able to:

- compose a scientific poster and/or slideshow
- present the results of a scientific study in a public setting

Major Topics to be Included

- Science Rhetoric
- Conventions of Scientific Discourse, including Plain Style, control of scientific terminology, use of passive voice, and claim qualification
- Common Scientific Genres, such as:
 - Memo
 - Study Proposal
 - Progress Report
 - Lab Notebook, Field Journal, etc
 - Lab Report
 - Scientific Article: IMRAD
 - Scientific poster
 - Scientific Presentation
 - Personal Essay
 - Science Essay for non-scientific audience (translation)
 - Research Essay
 - Review of Literature
- Collaborative writing
- Scientific Reasoning, including Quantitative Reasoning
- Oral presentation
- Writing as Process and Science as Process
- Nature of Science
- APA Style Documentation

Other Topics that may be included

- History of Scientific Communication
- Peer Review Process and Publication
- Science Fiction
- Scientific Illustration and Visual Rhetoric
- Science Journalism
- Science and Nature Writing
- Medical Writing