

New Course Proposal

Submit completed form electronically

1. **Course prefix and course number:** LIS 250
2. **Course title:** Information, Science, & Society
3. **Abbreviated title for class schedule** (30 characters or less): Information, Science, & Society
4. **Credit hours:** 4

(note: if credits are variable, list range of credits (e.g. 1-8 credits))

Catalog description: This course investigates how scientific information is produced, disseminated, and consumed in contemporary American society. Students will interrogate the status of evidence, the definition of theory, and the nature of pseudoscience or “bad science” as they are understood today in the context of contemporary scientific issues. Students will research topics in contemporary science using a variety of formats and media and will practice critical thinking and evaluation of scientific information encountered in a wide range of settings and contexts.

5. **Prerequisites (to add each additional prerequisite, start a new line):** N/A
(See attached Note for samples)

A. (course prefix, (space) and number) or or or or

B. (course prefix, (space) and number) or or or or

C. (course prefix, (space) and number) or or or or

6. **Co-requisites (including labs, if any):**

A. (course prefix, (space) and number) or or or or

7. **Major/Class restrictions:** Please indicate any class or major restrictions: N/A

8. **Is course repeatable?** Yes No X If Yes, list maximum credits:

9. **Labs requirements:** If course includes a lab: # of hours lecture: ; # of hours lab:
N/A

10. **Fees:** List any course fees: None

11. **Grade Mode:** Graded only: Pass/No Pass only: Option: Either

12. **CIP Code:** Six-digit CIP code (check with your Division Director):

13. Special qualifications; Is course proposed for (yes/no):

A. University Studies? X If yes, list Strand(s) Inquiry & Analysis Capacity

B. Honors?

15. Cross-listing: List any cross-listing (and please complete the Cross-list proposal form at <https://inside.sou.edu/provost/curriculum.html>):

and and and
and N/A

16. Strategic justification for proposed course:

A. **Rationale:** What is the overall strategic rationale for offering this course? This course addresses a need for students to learn about how scientific information is produced, disseminated, and consumed in our culture. It teaches critical thinking skills, provides opportunities for students to practice research and writing skills, and helps develop science-literate citizens who know how to evaluate the scientific information they encounter in the news, on social media, and in daily life.

B. **Alignment:**

1. How does this course align with the unit's mission plan? The course is in alignment with the library's academic mission to teach information literacy skills and to produce metaliterate citizens.

2. How does the course fit into the rest of the unit's curriculum? This course fills a gap in the current library curriculum, which focuses more broadly on research skills and information literacy without delving into specifics in the scientific and cultural context of contemporary society.

C. **Enrollment:** What is the new course's estimated enrollment each time it is offered over a three-year period? Year 1 15; Year 2 20; Year 3 25

D. **Resource evaluation:** What resources – faculty, equipment, lab space, etc. -- will be needed to offer this course and how will those resources be obtained?

1. *Faculty:*

- a. Who will teach the course? Melissa Anderson will teach the course initially, although several current library faculty members would also be qualified to teach the course
- b. Evaluate unit's faculty availability and/or needs and the impact on other teaching obligations. Once hiring processes are complete for open positions, the library faculty will have the capacity to offer this course regularly alongside other offerings.
- c. If additional faculty members are needed, how will that need be met? No other faculty members are needed aside from the ones currently being recruited.

2. *Facilities*: Cite any additional need for classrooms, equipment or lab space; explain how that need(s) will be met. N/A

3. *Other*:

- a. Are Hannon Library resources sufficient to meet the needs of this course? Yes, the library already has access to all the materials that will be needed to support the planned curriculum.
- b. Are any other resources needed to support this course? No
If so, please explain how they will be obtained.

E. External impact:

1. What is the expected effect of this course on existing programs elsewhere in the university? There aren't any other courses currently at the university with this curriculum. If approved for the new Gen Ed, this course would be one option among others for meeting the lower division Inquiry & Analysis requirement, but there is no direct impact anticipated on other units.

NOTE: Please document your contact with other academic programs which may be affected by this new course and the response you received.

Melissa has discussed this course with the chair of philosophy, who noted that it might be a good introduction to scientific thinking for students interested in taking PHL 330 or 339 later.

2. Will any of your prerequisites affect other academic programs? N/A

NOTE: Please document your contact with other academic programs which may be affected by this new course and the response you received.

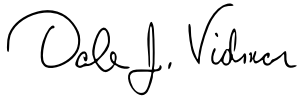
17. Syllabus (condensed)

*(Attach an accompanying, condensed syllabus, which should include the following items. Schedules and similar details are **not** required.)*

Please See Attached

- A. Course description (same as Catalog description, above)
- B. Learning objectives of the course
- C. Required texts
- D. Course format
- E. Other – any other relevant materials needed to explain the goals and teaching methods of this course.

Approvals:



Signature of Division Director

2-8-2022

Date

4/29/16

Abbreviated Syllabus for LIS 250: Information, Science, and Society

Catalog Description

This course investigates how scientific information is produced, disseminated, and consumed in contemporary American society. Students will interrogate the status of evidence, the definition of theory, and the nature of pseudoscience or “bad science” as they are understood today in the context of contemporary scientific issues. Students will research topics in contemporary science using a variety of formats and media and will practice critical thinking and evaluation of scientific information encountered in a wide range of settings and contexts.

Course Learning Objectives

1. Students will understand and be able to describe how scientific information is created and disseminated
2. Students will be able to analyze articles on scientific topics in various formats and evaluate their credibility
3. Students will be able to perform research and gather credible sources on a scientific topic of current interest
4. Students will be able to synthesize research on a current scientific topic from various sources and formats and make a claim about the scientific topic they have chosen
5. Students will be able to argue for the claim they have made using research and draw conclusions about their topic and its perception in contemporary culture

Required Texts

McIntyre, L. (2019). *The scientific attitude: Defending science from denial, fraud, and pseudoscience*. MIT Press.

Additional readings provided via Moodle

Course Format

LIS 250: Information, Science, and Society was designed to be delivered in diverse formats, including in-person, online, or hybrid format, and either synchronously or asynchronously.

Other information

In LIS 250: Information, Science, and Society, students will look at case studies involving the production, dissemination, and consumption of scientific information on a variety of high interest, current scientific topics while learning about different information formats, the economics of scientific publishing, and the mental processes involved with evaluating scientific information.

Assignments include an analysis of multiple information formats all treating the same topic, an annotated bibliography of works on a topic of current scientific interest, a review of literature in a variety of formats on scientific topic of the student's choosing, a short research paper on a

scientific topic of the student's choosing, as well as oral and visual projects on scientific topics of interest.

The course is designed to solidify and further develop skills learned in University Seminar and prepare students for upper division courses requiring advanced information literacy skills while also helping students develop the skills needed to understand and evaluate scientific information encountered in daily life. As part of the LIS curriculum, the course also introduces students to the concept of *metaliteracy*, which is an integrated model of literacy that engages with the learner as both a consumer and producer of information in a variety of formats and in a variety of individual and collaborative environments. As part of the new General Education curriculum, LIS 250 embraces the learning objectives of the Inquiry & Analysis capacity within the context of scientific information.

Outline of Selected Course Themes and Questions

Data, information, and knowledge

- How is scientific knowledge created? What is considered evidence? What is a theory?

History of Scientific Ideas

- How did we get where we are today?

Culture and Science

- How and where do we encounter scientific ideas and information?

Lies, Damned Lies, and Statistics

- What is the role of numbers and statistics in science? How do we know if we can trust them?

Pseudoscience and “bad science”

- How can we determine if something is “good” science?

Current scientific issues of interest

- What's in the news? How do those stories relate to issues of current interest to the culture?

Follow the money

- How do the economics of research and publishing affect what is studied, published, etc?

Researching Scientific Ideas

- What are the best ways to identify reliable scientific information in different formats?

Literature Reviews

- What is the function of the literature review?

Sample Assignment

LIS 250 Information, Science, and Society

Research Paper Assignment

Due XX/XX/XXXX via Moodle by 6 pm

Purpose

The purpose of this assignment is to teach you 1) to make a claim about what you've learned this term about scientific information and how it is produced, disseminated, and consumed in contemporary American society, 2) to synthesize the research you've gathered and evaluated in past assignments, and 3) to draw conclusions and explain what your own research into a scientific topic of interest tells you about the scientific information and contemporary culture. In completing this assignment, you will practice the academic research and writing skills you'll use in other courses, and you'll also learn more about how we encounter and use scientific information in our daily lives. This paper will also be the foundation for your oral presentation in the last week of class.

Skills

1. Making a claim about scientific information on a particular topic of interest
2. Synthesizing research done on a specific scientific topic
3. Drawing conclusions based on analysis of research on a specific scientific topic
4. Explaining the significance of conclusions
5. Citing sources accurately

Knowledge

This assignment will familiarize you with knowledge in the following areas:

1. Current research in the area of your research topic
2. Academic writing & APA Citation

Tasks

Please follow the steps below to complete your research paper assignment.

1. Write a 4-5 page paper based on the research question you developed in your annotated bibliography and literature review assignments. Use the research gathered for these past two assignments along with anything else you've found since turning those in. You should have at least 4 research sources that you cite in your paper, so if you've decided any of the sources you used in past assignments aren't relevant any more, you'll have to find additional sources.
2. In your introduction, make a claim based on your research about the production, dissemination, and/or consumption of information on a scientific topic of interest to you, and also state why this claim is an important one to understand.

3. In each paragraph in the body of your paper, make a specific point that is supported by evidence from the research you found. That point should be related to the main claim of your paper. Cited your evidence with APA-style in-text citations in the body of your paper.

4. In the conclusion, restate the main claim of the paper, and as part of the explanation of why that claim matters, relate your claim to a larger societal context. You may consider questions such as: What does your claim and your research tell us about science and society, or about the production, dissemination, and/or consumption of scientific information? Are there bigger questions that are revealed by your research? Are there areas where further research is needed? How did what you learned resonate for you personally?

5. Compile an APA-style reference list of all sources cited in the paper. Use the APA formatting guidelines that were provided for the annotated bibliography and literature review assignments.

Criteria for Success

A successful research paper will be turned in on or before the due date and have the following parts completed:

1. Introductory paragraph stating the claim you are making about the production, dissemination, and/or consumption of information on a specific scientific topic, and stating why it is important.
2. Body paragraphs supporting your main claim which contain main points backed up by evidence from your research and cited in-text.
3. A conclusion restating the main claim and relating it to a larger context in the area of science and society.
4. A list of at least 4 cited references formatted in APA style.

Grading rubric attached

Grading Rubric

	1 - Beginning	2 - Developing	3 - Accomplished
Main Claim	Topic is stated but claim is unclear, or is posed as a simple yes or no question	Main claim is stated clearly, but statement of why it is important is missing	Main claim is stated, and a statement of why the question is important is included
Paragraphs	Paragraphs are related to the topic, but lack clear points or make points that are not supported by evidence. In-text citations are incomplete or missing.	Paragraphs make points, but points are not all clearly related to the main claim of the paper. Majority of points are backed up by evidence which is cited in-text.	Paragraphs make clear points that support the main claim of the paper. Points are all backed up by evidence cited in-text.
Conclusion	Conclusion restates topic but does not make a clear claim about topic and does not relate topic to a larger societal context.	Conclusion restates main claim, but connection to a larger context is missing or needs more development.	Conclusion restates main claim and explains how the claim is related to a larger context in the area of scientific information and society.
References	References are incomplete and/or only 2 or fewer sources are cited	4 sources are cited, but formatting does not follow APA style or references are missing information	4 or more sources are cited and citations are complete and follow APA style accurately