

New Core Component Proposal

Date Submitted: 09/10/19 5:22 pm

Viewing: **SCEN 101-GE : Contemporary Issues in Science: Cosmos, Earth, & Humanity**

Last edit: 09/10/19 5:22 pm

Changes proposed by: tmpowers

In Workflow

1. CLSC Department Head UG
2. SC College Dean UG
3. CCC Preparer
4. CCC Chair
5. Faculty Senate Preparer
6. Faculty Senate
7. Provost II
8. President
9. Curricular Services

Approval Path

1. 09/11/19 2:31 am
Lucas Macri (Imacri):
Approved for CLSC
Department Head UG
2. 09/11/19 2:32 am
Lucas Macri (Imacri):
Approved for SC College
Dean UG

Contact(s)

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Course Prefix SCEN Course Number 101

Academic Level UG

Complete Course Title Contemporary Issues in Science: Cosmos, Earth, & Humanity

Abbreviated Course Title CISC: COSMOS, EARTH, HUMANITY

Crosslisted With

Semester Credit Hour(s) 3

Proposal for: Core Curriculum

How frequently will the class be offered? Fall, annually

Number of class sections per semester 1

Number of students per semester

Historic annual enrollment for the last three years

Last year: Previous year: Year before:

Core curriculum

Foundational Component Area Core Life/Physical Sci (KLPS)

TCCN prefix/number

Foundational Component Area: Life/Physical Sci

How does the proposed course specifically address the Foundational Component Area definition above?

SCEN101 is an interdisciplinary general science course, with contributions from faculty in all of the departments in the College of Science. Specifically, the course will bring together statistics, math, biology, chemistry, and physics to explain topics related to the cosmos, life on earth, and humanity (for example, the big bang, evolution, and vaccines). This course aims to teach inquiry and critical thinking while focusing on contemporary issues in science. The course is designed for non-majors; it is intended to be engaging to a broad audience (even those averse to or afraid of STEM) and has no prerequisites. Lectures and readings will not only expose students to the evidence supporting scientific theories, but will also explain how the data was collected, with emphasis on the scientific method. Class discussions (both inside and outside the classroom) and the end of semester project will provide opportunities for students to apply what they learn in class to current issues in science that impact society today. Please find several artifacts attached at the end of the syllabus, which are intended to support both the component area definition and core objectives.

Core Objectives:

Critical Thinking (to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information):

Four of our learning outcomes focus on critical thinking skills, including:

1. Evaluate the quality of a scientific claim
2. Compare how science is presented in the media to original scientific sources in order to determine if the science presented is accurately discussed
3. Classify science, including that presented in newspapers, on websites, in popular science books, etc. as either science or non-science.
4. Assess scientific findings that impact your current life and future, to make well informed decisions on a personal level

These learning outcomes will be addressed both in reading assignments (popular science articles as well as corresponding original research articles) and in lectures. Science will be presented in lecture with these learning outcomes in mind.

These learning outcomes will be evaluated by:

1. Clicker questions (class participation)
2. Exams
3. Final Project

Please see artifacts included after syllabus.

Communication (to include effective development, interpretation and expression of ideas through written, oral and visual communication):

Two of our learning outcomes focus on communication, including:

1. Communicate science by citing data that supports conclusions with scientifically and statistically accurate information
2. Build teamwork skills by communicating with a group of your peers a recent scientific finding through a video presentation to a general audience

Students will have the opportunity to develop oral communication on class discussion days (currently 8 days in the schedule are dedicated to discussion, led by faculty) and written communication on an on-line discussion board (Packback). In Packback, students will need to cite reliable sources to support their responses to peer questions.

These learning outcomes will be evaluated by:

1. Packback discussion board (written communication)
2. Final Project (oral and visual communication)

Please see project description/rubrics and example Packback discussion after syllabus.

Empirical and Quantitative Skills (to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions):

Two of our learning outcomes focus on empirical and quantitative skills, including:

1. Interpret observations, statistical data, estimates, results summarized in graphs and tables, and conclusions in popular science
2. Analyze a source's use of statistics to evaluate its reliability

These learning outcomes will be addressed both in reading assignments (popular science articles as well as corresponding original research articles) and in lectures. Science will be presented in lecture with these learning outcomes in mind.

These learning outcomes will be evaluated by:

1. Exams
2. Packback discussion board
2. Final Project

Please see artifacts included after syllabus.

Teamwork (to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal):

One of our learning outcomes focus on teamwork, including:

1. Build teamwork skills by communicating with a group of your peers a recent scientific finding through a video presentation to a general audience

Teamwork will be addressed directly in lecture, prior to the first teamwork assignment due date (see below).

These learning outcomes will be evaluated by:

1. Final Project

Please see project description/rubrics after syllabus. The teamwork worksheet and final teamwork evaluation shows specifically how teamwork will be evaluated.

Additional Comments

Please ensure that the attached course syllabus sufficiently and specifically details the appropriate core objectives.

Attach Course Syllabus [SCEN101_syllabus.pdf](#)

Reviewer Comments

Key: 1090