# http://www.ric.edu/webcommunications/images/SealWithText_Small_Black.pngUNDERGRADUATE CURRICULUM COMMITTEE (UCC) PROPOSAL FORM

## Cover page scroll over blue text to see further important [instructions](#instructions): please read.

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| --- | --- | --- | --- |
| A.1. Course | **PSCI 262: Space: The Final Frontier** | | |
| A.2. [Proposal type](#type) | **Course: Creation** | | |
| A.3. [Originator](#Originator) | **Paul Tiskus** | [Home department](#home_dept) | **Educational Studies/Physical Sciences** |
| A.4. [Context and Rationale](#Rationale) | **Approve course: Physical Science 262: Space: The Final Frontier as a Connections course in General Education.**  **Currently there is one Connections course in the natural sciences (BIOL 262: The World’s Forests). The addition of PSCI 262 provides students the opportunity to explore the cultural impacts on the imagination of space, the science and technological discoveries in the past and future, and how space has fueled science fiction literature, film, and in popular culture.** | | |
| A.5. [Student impact](#student_impact) | **Provides a Connections course in the physical sciences.** | | |
| A.6. [Impact on other programs](#impact) | **None** | | |
| A.7. [Resource impact](#Resource) | [*Faculty PT & FT*](#faculty): | **None** | |
| [*Library*:](#library) | **None** | |
| [*Technology*](#technology) | **None** | |
| [*Facilities*](#facilities): | **None** | |
| A.8. [Semester effective](#Semester_effective) | **Fall 2019** |  | |

B. [NEW OR REVISED COURSES](#delete_if)  **DO NOT use highlight. Delete this whole page if the proposal does not include a new or revised course.**

|  | New  Examples are provided for guidance, delete the ones that do not apply |
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| B.1. [Course prefix and number](#cours_title) | **PSCI 262** |
| B.2. Cross listing number if any |  |
| B.3. [Course title](#title) | **Space: The Final Frontier** |
| B.4. [Course description](#description) | **Students explore the cultural impacts on the imagination of space, the science and technological discoveries for space science, and how space has fueled science fiction literature, film, and popular culture.** |
| B.5. [Prerequisite(s)](#prereqs) | **FYW, FYS, and 45 credits** |
| B.6. [Offered](#Offered) | **Fall | Spring | Summer |** |
| B.7. [Contact hours](#contacthours) | **4** |
| B.8. [Credit hours](#credits) | **4** |
| B.10. [Grading system](#grading) | **Letter grade** |
| B.11. [Instructional methods](#instr_methods) | **Lecture | Small group | Individual |** |
| B.12.[Categories](#required) | **Free elective** |
| B.13. Is this an Honors course? | **No** |
| B.14. [General Education](#ge)  N.B. Connections must include at least 50% Standard Classroom instruction. | **Yes: Connections** |
| B.15. [How will student performance be evaluated?](#performance) | **Attendance | Class participation | Exams | Presentations | Papers |**  **Class Work | Quizzes | | Projects |** |

| B.18**.** [**Course learning outcomes**](#outcomes)**:** | [**How will each outcome be measured**](#measured)**?** |
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| Examine key events in the development of science and recognize that s science is an evolving body of knowledge. | Short response papers (1 – 2 pages) to selected readings. These will be assigned on a weekly basis. |
| Recognize the social and philosophical implications of scientific discoveries and examine the potential of science and technology to address problems of the contemporary world. | Individual students will provide a short presentation (15 – 20 min) of a current event or issue about space exploration. |
| Examine the cultural and historical origins of the theories of space and how our knowledge of space influences society. | Short response papers (1 – 2 pages) to selected readings. |
| Examine the astronomical observations of the prehistoric cultures and how myth and science are elements of past and present cultures. | Student groups will select a past culture, myth, or object as an artifact illustrating its significance in understanding our universe and present to the class the results of their research. |
| Examine the evolution of human space exploration and progress of science, technology, and innovation. | Quiz or other formal assessment. |

| B.19. [**Topical outline**](#outline)**: Do NOT insert whole syllabus, we just need a two-tier outline** |
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| I. The Concept of Space in Antiquity  A. Creation Stories  B. Monoliths & megaliths  C. Time keeping: Sundials and calendars  D. Astronomy vs Astrology  E. Cultural interpretations of space and time  F. Hellenistic influences in astronomy  II. Rise of Modern Science  A. From Ptolemy to Copernicus  B. Brahe & Kepler: Observations to a mathematical model  C. Galileo: Astronomy on trial  D. Newton: Gravity and planetary mechanics  E. The Big Bang and the expanding universe  III. Science, Innovation, & Technology  A. It’s Rocket Science! Mercury to the Space Shuttle and SpaceX  B. Technology exploring space: Satellites, communication, and the human factor  C. Conducting science and living in microgravity  D. What are the challenges for future innovation?  IV: Space and Popular Culture  A. Percival Lowell, H.G. Wells and Orson Wells: The Martian mythology  B. The benevolent alien and the terrorist: Depiction of aliens in film and text.  C. Science fiction to science fact  V. Are We Alone?  A. Voyager, Kepler, Casinni: Recent discoveries from satellites within our solar system  B. The Search for ET: Search and identification of signals  C. Terraforming Mars: Have we learned our lesson on Earth?  D. Exoplanets and the Drake Equation |

D. Signatures

| Name | Position/affiliation | [Signature](#_Signature" \o "Insert electronic signature, if available, in this column) | Date |
| --- | --- | --- | --- |
| Sarah Knowlton | Chair, Physical Sciences |  |  |
| Earl Simson | Dean, Arts and Sciences |  |  |
| Gerri August or Julie Horwitz | Co-Deans, FSEHD |  |  |
| Jeffrey Mello | Dean, School of Business |  |  |
| Debra Servello | Dean, School of Nursing |  |  |
| Jayashree Nimmagada | Dean, School of Social Work |  |  |
| James Magyar | Chair, COGE |  |  |