# UNDERGRADUATE CURRICULUM COMMITTEE (UCC)PROPOSAL FORMhttp://www.ric.edu/webcommunications/images/SealWithText_Small_Black.png

## Cover page scroll over blue text to see further important [instructions](#1v1yuxt): please read.

**N.B. DO NOT USE HIGHLIGHT, PLEASE DELETE THE WORDS THAT DO NOT APPLY TO YOUR PROPOSAL**

**ALL numbers in section (A) need to be completed, including the impact ones.**

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| A.1. [Course or program](#30j0zll) | **SED 416: Socio-scientific issues** **in the classroom** |  |
| [Replacing](#2et92p0)  |  |
| A.2. [Proposal type](#tyjcwt) | **Course: creation**  |
| A.3. [Originator](#4d34og8) | **Rudolf Kraus** | [Home department](#2s8eyo1) | **Educational Studies** |
| A.4. [Context and Rationale](#17dp8vu)  | **Science and engineering are important aspects of modern life, and as the world becomes more complex is it necessary that we equip all students with the tools to understand that world. Therefore, it is critical that all K-12 students have access to a rigorous, engaging science curriculum.** **This class equips our science education students with the skills and understanding to create that curriculum and foster scientific literacy in their K-12 students. This class is aligned to the 2018 RIDE standards and the 2020 NSTA/ASTE standards for teacher preparation.**  |
| A.5. [Student impact](#3rdcrjn) | **Students will be better prepared to be science teachers, be able to create more compelling experiences for their students, and have increased clinical preparation for their future career.**  |
| A.6. [Impact on other programs](#19c6y18)  | **no impact** |
| A.7. [Resource impact](#3tbugp1) | [*Faculty PT & FT*](#28h4qwu):  | **no impact** |
| [*Library*:](#nmf14n) | **no impact** |
| [*Technology*](#37m2jsg) | **no impact** |
| [*Facilities*](#1mrcu09): | **no impact** |
| A.8. [Semester effective](#35nkun2) | **Fall 2019** | A.9. [Rationale if sooner than next Fall](#35nkun2) |  |
| A.10. INSTRUCTIONS FOR CATALOG COPY: This single file copy must include ALL relevant pages from the college catalog, and show how the catalog will be revised. (1) Go to the “Forms and Information” page on the UCC website. Scroll down until you see the Word files for the current catalog. (2) Download ALL catalog sections relevant for this proposal, including course descriptions and/or other affected programs. (3) Place ALL relevant catalog copy into a single file. Put page breaks between sections and delete any catalog pages not relevant for this proposal. (4) Using the track changes function, revise the catalog pages to demonstrate what the information should look like in next year’s catalog. (5) Check the revised catalog pages against the proposal form, especially making sure that program totals are correct if adding/deleting course credits. If new copy, indicate where it should go in the catalog. If making related proposals a single catalog copy that includes all is acceptable. Send as a separate file along with this form. |

B. [NEW OR REVISED COURSES](#46r0co2)  **DO NOT USE HIGHLIGHT. DELETE THIS WHOLE PAGE IF THE PROPOSAL DOES NOT INCLUDE A NEW OR REVISED COURSE.**

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|  | Old ([for revisions only](#2lwamvv)) | NewExamples are provided for guidance, delete the ones that do not apply |
| B.1. [Course prefix and number](#1ksv4uv)  |  | **SED 416** |
| B.2. Cross listing number if any |  |  |
| B.3. [Course title](#44sinio)  |  | **Socio-scientific Issues in the Classroom** |
| B.4. [Course description](#2jxsxqh)  |  | **Students examine reform in science education and investigate the interactions between science, technology, and society.** |
| B.5. [Prerequisite(s)](#z337ya) |  | **SED 303** |
| B.6. [Offered](#111kx3o) |  | **Fall**  |
| B.7. [Contact hours](#1y810tw)  |  | **4 credits (+ 90 clinical hours)** |
| B.8. [Credit hours](#4i7ojhp) |  | **4** |
| B.9. [Justify differences if any](#2xcytpi) | **clinical hours are required for teacher certification** |
| B.10. [Grading system](#206ipza)  |  | **Letter grade**  |
| B.11. [Instructional methods](#1ci93xb) |  | **Fieldwork | Laboratory | Lecture | Practicum | Small group |**  |
| B.12.[Categories](#3whwml4) |  | **Required for major/minor |****Required for Certification** |
| B.13. Is this an Honors course? |  | **NO** |
| B.14. [General Education](#2bn6wsx) |  | **NO**  |
| B.15. [How will student performance be evaluated?](#qsh70q) |  | **Attendance | Class participation | Presentations | Class Work | Performance Protocols | Projects |** **| Reports of outside supervisor** |
| B.16. [Redundancy statement](#3as4poj) |  |  |
| B. 17. Other changes, if any |  |

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| B.18**.** [**Course learning outcomes**](#1pxezwc)**: List each one in a separate row** | [**Professional Org.Standard(s)**](#49x2ik5)**, if relevant** | [**How will each outcome be measured**](#2p2csry)**?** |
| Implement science standards, learning progressions, and sequencing of science content for their licensure area. | NSTA/ASTE 2020 1c, RIPTS 5 | Unit Plan |
| Plan learning units of study for all students based upon their understandings of how students learn science. | NSTA/ASTE 2020 2a, 2cRIPTS 3 | Unit Plan |
| Engaging all students in science learning by identifying appropriate learning goals. | NSTA/ASTE 2020 3a, b, cRIPTS 1 | Unit Plan |
| Demonstrate safety protocols in their classrooms, implement ethical treatment of living organisms and maintain chemicals and equipment.  | NSTA/ASTE 2020 4a, b, c | Science appendix to RIC-ICEE |
| Reflect on and improve the effectiveness of their unit to motivate and teach students about science and the world.  | NSTA/ASTE 2020 6a, RIPTS 10 | Critical reflection |

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| B.19. [**Topical outline**](#147n2zr)**: Do NOT insert whole syllabus, we just need a two-tier outline** |
| 1. The need for science education reform

a) The interconnected worldb) Equity in science education, what would that look like?I. Stephen Jay Gould, the Mis-measure of ManII. Beatrix Potter and the Royal Societyc) International comparisons, including TIMMS and PISA.d) History of science education reformI. Committee of Ten ReportII. Scopes trialIII. A Nation at RiskIV. No Child Left Behind2) Science in contexta) The myth of objectivityI. The promise and problems of BaconII. What does scientific language -do-?b) Science by whom, for whom?I. What would <insert type of science> look like?II. George Joseph and better history of scienceIII. The ‘achievement’ of Wm. Harvey and the invisibility of Ibn Sinac) The tragedy of the commons3) Example: Flint, MI and the water crisisa) Learning through case studiesI. Going beyond ‘pure’ scienceII. Find the people involvedb) Teaching through case studiesI. Identify the people involvedII. Clarify the problem facing themIII. Scientific knowledge is A factor, not THE factorIII. Even-handedness from the teacher’s perspectivec) Resources for teachers4) Building our own SSI units, by designa) Understanding by Design reviewb) Identifying the problemc) Finding the science, finding the standardsd) Assessment of complex things5) Curriculum analysis (with clinical site)a) What is taught? Multiple lenses of assessment.b) What is valued? Multiple stakeholders.c) Are there objectives that are unmet or unstated?d) How well/poorly does this meet NGSS standards?6) Presentation of clinical work and Critical reflection on units a) Unit design (original)b) Data from classroomsc) Unit re-design  |

### D. Signatures

* Changes that affect General Education in any way MUST be approved by ALL Deans and COGE Chair.
* Changes that directly impact more than one department/program MUST have the signatures of all relevant department chairs, program directors, and relevant dean (e.g. when creating/revising a program using courses from other departments/programs). Check UCC manual 4.2 for further guidelines on whether the signatures need to be approval or acknowledgement.
* Proposals that do not have appropriate approval signatures will not be considered.
* Type in name of person signing and their position/affiliation.
* Send electronic files of this proposal and accompanying catalog copy to curriculum@ric.edu and a printed or electronic signature copy of this form to the current Chair of UCC. Check UCC website for due dates.

##### D.1. Approvals: required from programs/departments/deans who originate the proposal. may include multiple departments, e.g., for joint/interdisciplinary prposals.

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| Name | Position/affiliation | [Signature](#_2zbgiuw) | Date |
| Lesely Bogad | Chair of Educational Studies |  |  |
| Gerri August or Julie Horwitz | Dean of FSEHD |  |  |