# 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.

**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.**

|  |  |  |
| --- | --- | --- |
| A.1. [Course or program](#Proposal) | **PHys 200 Mechanics and PHYS 201 ElecTricity and magnetism**Also prereqs. on other PHYS and CHEM courses, and revisions to PHYS 101 and 102. |  |
| [Replacing](#Ifapplicable)  |  |
| A.2. [Proposal type](#type) | **Course: [deletion](#deletion" \o "Will this course deletion affect programs in any other departments?  Search catalog to identify all occurrences. If yes, identify all affected departments or programs, and ensure you obtain acknowledgment signatures from their chairs/directors and deans)** **and revision** **Program:** [**revision**](#revision)**(several are affected)** |
| A.3. [Originator](#Originator) | **Andrea Del Vecchio** | [Home department](#home_dept) | **Physical Sciences** |
| A.4. [Context and Rationale](#Rationale)  | **We propose to eliminate the calculus based PHYS 200 and PHYS 201 courses and require all students who currently take PHYS 200/201 to take the algebra-based PHYS 101 and PHYS 102. We have several reasons that we feel this will benefit all students who take introductory physics****1. In terms of content covered, these courses are already very similar. Because 200/201 are currently taken concurrently with calculus, it is difficult to include much calculus in the course anyway. The change to taking 101/102 would involve only a minor change in the mathematical rigor of the course.****2. Few students come to RIC prepared to take calculus their first semester. Requiring a calculus-based introductory course for the physics degree discourages students from majoring in physics or extends the length of their program.****3. This change would allow us to offer both sections of introductory physics both fall AND spring. Currently 101 and 200 are offered only in the fall and 201 and 102 only in the spring. By combining the courses, we have space to offer an off-semester section of each course. This will help students in Physics, Chemistry, Biology, Math, Computer Science and Secondary Education by giving them more flexibility in taking the introductory sequence.****4. PHYS 101 and 102 also will be offered in the summer, and their titles and descriptions will be updated to be more inclusive, and a prerequisite added to PHYS 101. The course contact hours are being corrected to six which is what they have actually been since 2005 but somehow never got updated in the catalog.****These courses are also General Education course in the Natural Sciences and AQSR distribution categories. However, very few students who are not science or math/CS majors take them for Gen. Ed. We will be able to accommodate all students who want to take physics for their Gen. Ed. either in 101 and 102, or our other physics general education offerings.** **This will change the prerequisites for the following courses:****PHYS 307****PHYS 311****PHYS 313****PHYS 315****PHYS 321****PHYS 401****PHYS 403****PHYS 407****PHYS 411****PHYS 413****PHYS 467****CHEM 405****CHEM 406****All as indicated in section B.5** |
| A.5. [Student impact](#student_impact) | **Students will have more flexibility about when to take the introductory sequence. We will have more sections of 101 and 102 offered in both the fall and spring, and the title and description will be changed to make it clearer what both cover.** |
| A.6. [Impact on other programs](#impact)  | **PHYS 101/102 will be substituted for PHYS 200/201 in the following programs****B. S. in Biology****B. S. in Physics****B.S. in Chemistry (all concentrations)****B.A. in Chemistry****B.A. in Mathematics****B. S in Computer Science****B. A in Chemistry Secondary Education****B.A in Mathematics Secondary Education (PHYS 200 only)****B. A. in Physics Secondary Education****B.A. in General Science Secondary Education****B. A. in Biology General Education****Appropriate approvals have been received from all affected programs (see also note in B. 17.** |
| 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** | A.9. [Rationale if sooner than next Fall](#Semester_effective) |  |
| 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](#delete_if)  **DO NOT use highlight. Delete this whole page if the proposal does not include a new or revised course.**

|  | Old ([for revisions only](#Revisions))Only include information that is being revised, otherwise leave blank (delete provided examples that do not apply) | NewExamples are provided for guidance, delete the ones that do not apply |
| --- | --- | --- |
| B.1. [Course prefix and number](#cours_title)  | **PHYS 101 General Physics I (change title, course description, prerequisite and when offered)****PHYS 102 General Physics II (change title, course description and when offered)** |  |
| B.2. Cross listing number if any |  |  |
| B.3. [Course title](#title)  | **PHYS 101 General Physics I****PHYS 102 General Physics II** | **PHYS 101 Physics for Science and Mathematics I** **PHYS 102 Physics for Science and Mathematics II** |
| B.4. [Course description](#description)  | **PHYS 101** This noncalculus-based course includes vectors, statics, kinematics, Newton’s laws, energy, momentum, fluids, thermodynamics, and wave motion. Lecture and laboratory. 7 contact hours.**PHYS 102** This noncalculus-based course includes electrostatics, DC and AC circuits, magnetism, electromagnetic waves, optics, and an introduction to atomic and nuclear physics. Lecture and laboratory. 7 contact hours. | **PHYS 101:** This mathematically intensive course includes vectors, statics, kinematics, Newton's laws, energy, momentum, thermodynamics, and wave motion. Lecture and laboratory. 6 contact hours. **PHYS 102:** This mathematically intensive course includes electrostatics, DC and AC circuits, magnetism, electromagnetic waves, optics and an introduction to atomic and nuclear physics. Lecture and laboratory. 6 contact hours. |
| B.5. [Prerequisite(s)](#prereqs) | **PHYS 101-None****PHYS 307- Prerequisite PHYS 201****PHYS 311- Prerequisite PHYS 200** **and successful completion of or concurrent enrollment in MATH 213 or consent of department chair****PHYS 313- Prerequisite PHYS 201 and PHYS 307****PHYS 401 – Prerequisite MATH 314 and PHYS 201****PHYS 403 – Prerequisite MATH 314 and PHYS 201****PHYS 407 – Prerequisite PHYS 201 and PHYS 307****PHYS 411 – Prerequisite CHEM 104, MATH 416, PHYS 201****PHYS 413- Prerequisite PHYS 201 and PHYS 313****CHEM 405 – Prerequisites CHEM 104, MATH 213 and PHYS 102 or PHYS 201****CHEM 406– Prerequisites CHEM 104, MATH 213 and PHYS 102 or PHYS 201** | **PHYS 101-** Completed MATH 120 or appropriate score on the mathematics placement exam.**PHYS 307- Prerequisite PHYS 102****PHYS 311- Prerequisute PHYS 101** **and successful completion of or concurrent enrollment in MATH 213 or consent of department chair****PHYS 313- Prerequisite PHYS 102 and PHYS 307****PHYS 401 – Prerequisite MATH 314 and PHYS 102****PHYS 403 – Prerequisite MATH 314 and PHYS 102****PHYS 407 – Prerequisite PHYS 102 and PHYS 307****PHYS 411 – Prerequisite CHEM 104, MATH 416, PHYS 102****PHYS 413- Prerequisite PHYS 102 and PHYS 313****CHEM 405 – Prerequisites CHEM 104, MATH 213 and PHYS 102****CHEM 406– Prerequisites CHEM 104, MATH 213 and PHYS 102** |
| B.6. [Offered](#Offered) | **PHYS 101 General Physics I: Fall, Summer****PHYS 102 General Physics II: Spring, Summer** | **PHYS 101 General Physics I: Fall, Spring, Summer****PHYS 102 General Physics II: Fall, Spring, Summer** |
| B.7. [Contact hours](#contacthours)  | **7** | **6** |
| B.8. [Credit hours](#credits) | **4** | **4** |
| B.9. [Justify differences if any](#differences) | Laboratory course |
| B.10. [Grading system](#grading)  |  |  |
| B.11. [Instructional methods](#instr_methods) |  |  |
| B.12.[Categories](#required) |  |  |
| B.13. Is this an Honors course? | **NO** | **NO** |
| B.14. [General Education](#ge)N.B. Connections must include at least 50% Standard Classroom instruction. | **YES |**  | **YES |**  |
| B.15. [How will student performance be evaluated?](#performance) |  |  |
| B.16. [Redundancy statement](#competing) |  |  |
| B. 17. Other changes, if any | Several programs in addition to those who use PHYS 200/201 will be need to be notified about this change in title and when offered for PHYS 101 and PHYS 102 courses: including ELED content major in general science, technology Education, PHILOSOPHY, and Health Science |

| B.18**.** [**Course learning outcomes**](#outcomes)**: List each one in a separate row** | [**Professional Org.Standard(s)**](#standards)**, if relevant** | [**How will each outcome be measured**](#measured)**?** |
| --- | --- | --- |
|  |  |  |
|  |  | Click Tab from here to add rows |

| B.19. [**Topical outline**](#outline)**: Do NOT insert whole syllabus, we just need a two-tier outline** |
| --- |
| 1. Topic 1
	1. Subtopic 1a
	2. Subtopic 1b etc.

2) Topic 2 etc. |

### C. [Program Proposals](#program_proposals) **complete only what is relevant to your proposal Delete this whole page if the proposal is not revising, creating, deleting or suspending any progam.**

|  | [Old (for revisions only)](#old_program) | New/revised |
| --- | --- | --- |
| C.1. [Enrollments](#enrollments) |  |  |
| C.2. [Admission requirements](#admissions) |  |  |
| C.3. [Retention requirements](#retention) |  |  |
| C.4. [Course requirements](#course_reqs) for each program option | **PHYS 101/102 will be substituted for PHYS 200/201 in the following programs****B. S. in Physics – Required Courses PHYS 200 and PHYS 201****B.S. in Chemistry (all concentrations)-Cognates PHYS 200 and PHYS 201****B.A. in Chemistry)-Cognates PHYS 200 and PHYS 201****B.S. In Biology –Cognates PHYS 101 and PHYS 102 or PHYS 200 and PHYS 201****B.A. in Mathematics – Cognates Category B PHYS 200 and either CSCI 211 or PHYS 201****B. S in Computer Science –Cognates One of the following two course sequences BIOL 111 and BIOL 112 or CHEM 103 and CHEM 104 or PHYS 200 and PHYS 201****B. A in Chemistry Secondary Education –Physics PHYS 200 and PHYS 201****B.A in Mathematics Secondary Education – Physics PHYS 200****B. A. in Physics Secondary Education****(currently suspended by RIDE) – Required Physics Courses PHYS 200 and PHYS 201****B.A. in General Science Secondary Education –Physics – PHYS 101 and PHYS 102 or PHYS 200 and PHYS 201****B. A. in Biology Secondary Education - Physics – PHYS 101 and PHYS 102 or PHYS 200 and PHYS 201** | **B. S. in Physics – Required Courses PHYS 101 and PHYS 102****B.S. in Chemistry (all concentrations)-Cognates PHYS 101 and PHYS 102****B.A. in Chemistry)-Cognates PHYS 101 and PHYS 102****B.S. In Biology –Cognates PHYS 101 and PHYS 102****B.A. in Mathematics – Cognates Category B PHYS 101 and either CSCI 211 or PHYS 102****B. S in Computer Science –Cognates One of the following two course sequences BIOL 11 and BIOL 112 or CHEM 103 and CHEM 104 or PHYS 101 and PHYS 102****B. A in Chemistry Secondary Education –Physics PHYS 101 and PHYS 102****B.A in Mathematics Secondary Education – Physics PHYS 101****B. A. in Physics Secondary Education****(currently suspended by RIDE) – Required Physics Courses PHYS 101 and PHYS 102****B.A. in General Science Secondary Education –Physics – PHYS 101 and PHYS 102****B. A. in Biology Secondary Education - Physics – PHYS 101 and PHYS 102** |
| C.5. [Credit count](#credit_count) for each program option | **None will be affected** |  |
| C.6. Other changes if any |  |  |
| C.7 [Program goals](http://www-prod.ric.edu/curriculum_committee/documents/Program%20goals)Needed for all new programs |  |  |

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.

| Name | Position/affiliation | [Signature](#_Signature" \o "Insert electronic signature, if available, in this column) | Date |
| --- | --- | --- | --- |
| Sarah Knowlton | Chair of Physical Sciences |  |  |
| Stephanie Costa | Chair of Mathematics and Computer Science |  |  |
| Lesley Bogad | Chair of Educational Studies |  |  |
| Earl Simpson | Dean of Arts and Sciences |  |  |
| Gerri August/Julie Horwitz | Co-Interim Deans of Feinstein School of Education and Human Development |  |  |
| Jeffrey Mello | Dean of the School of Business |  |  |
| Debra Servello | Dean of the School of Nursing |  |  |
| Jayashree Nimmagadda | Dean of the School of Social Work |  |  |
| Rebeka Merson | Chair of Biology |  |  |

##### D.2. [Acknowledgements](#acknowledge): REQUIRED from OTHER PROGRAMS/DEPARTMENTS IMPACTED BY THE PROPOSAL. SIGNATURE DOES NOT INDICATE APPROVAL, ONLY AWARENESS THAT THE PROPOSAL IS BEING SUBMITTED. CONCERNS SHOULD BE BROUGHT TO THE UCC COMMITTEE MEETING FOR DISCUSSION

| Name | Position/affiliation | [Signature](#Signature_2) | Date |
| --- | --- | --- | --- |
| James Magyar | Chair of COGE |  |  |
| Eric Hall | Director Health Science |  |  |
| Carolyn Obel-Omia | Chair ELED |  |  |
| Aaron Smuts | Chair Philosophy |  |  |