# 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): [if not working select “COMMents on rollover” in your Word preferences under view] **please read these.**

**N.B. ALL numbered categories in section (A) must be completed. Please do not use highlight to select choices within a category but simply delete the options that do not apply to your proposal (e.g. in A.2 if this is a course revision proposal, just delete the creation and deletion options and the various program ones, so it reads “course revision”) Do not delete any of the numbered categories—if they do not apply leave them blank. If there are no resources impacted, please put “none” in each A. 7 category.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A.1. [Course or program](#Proposal) | **BIOL 345 Advances in Human Physiology** | | | |  |
| [Replacing](#Ifapplicable) |  | | | |
| A. 1b. Academic unit | **Faculty of Arts and Sciences** | | | |  |
| A.2. [Proposal type](#type) | **Course: creation** | | | |  |
| A.3. [Originator](#Originator) | **Eric Hall** | [Home department](#home_dept) | **Biology** | | |
| A.4. [Context and Rationale](#Rationale) Must include additional information listed in smart tip for all [new programs](#type). If **online** course or program, you need to explain what mode(s) you plan to use and why you need that specific delivery. | **This is a new Human Physiology course intended to advance students understanding of how the science of biology impacts our understanding of human physiology in health and illness.**  **This should be an ideal course for any student planning on pursuing graduate programs in biology or medicine.** | | | | |
| A.5. [Student impact](#student_impact)  Must include to explain why this change is being made? | **Provides a relevant human physiology course as part of the Biology major now that BIOL 335 is going to be deleted in Spring 2025.** | | | | |
| A.6. [Impact on other programs](#impact) | **Any student with the prerequisites and an interest in human health and disease should be interested in taking this class.** | | | | |
| A.7. [Resource impact](#Resource) | [*Faculty PT & FT*](#faculty): | **None** | | | |
| [*Library*:](#library) | **None** | | | |
| *Technology (for in person delivery)*  The VP of Information Services should be consulted prior to submission and their acknowledgement signature included. | **\_\_\_RIC Campus \_\_\_NEC \_\_\_Other X None**  **Projector in classroom** | | | |
| *Technology: (for online delivery. Must be RIC supported)*  The VP of Information Services should be consulted prior to submission and their approval signature included. | **n/a** | | | |
| [*Facilities*](#facilities): | **None** | | | |
| A.8. [Semester effective](#Semester_effective) | **Fall 2024** | A.9. [Rationale if sooner than next Fall](#Semester_effective) | |  | |
| A.10. INSTRUCTIONS FOR CATALOG COPY: Use the Word copy versions of the catalog sections found on the UCC Forms and Information page. Cut and paste into a single file **ALL the relevant pages from the college catalog that need to be changed.** Use tracked changes feature to show how the catalog will be revised as you type in the revisions. If totally new copy, indicate where it should go in the catalog. If making related proposals a single catalog copy that includes all changes is preferred. Send catalog copy as a separate single Word file along with this form. | | | | | |
| A.11. List here (with the relevant urls), any RIC website pages that will need to be updated (to which your department does not have access) if this proposal is approved, with an explanation as to what needs to be revised: | | | | | |
| A. 12 **Check to see if your proposal will impact any of our** [**transfer** **agreements,**](file:///C:\Users\SAbbotson\Documents\Curriculum\ManualandWebsite\transfer%20agreements) **and if it does explain in what way. Please indicate clearly what will need to be updated, including any changes in prefix numbers/titles for TES.** | | | | | |
| A. 13 Check the section that lists “Possible NECHE considerations” on the UCC Forms and Information page and if any apply, indicate what that might be here and contact Institutional Research for further guidance. | | | | | |

**B.** [**NEW OR REVISED COURSES**](#delete_if) **FOR WHICH FULL CONTACT HOURS ARE MET IN PERSON and listed as such in the catalog. If the course will be also taught in other modes just fill out the questions that are noted at the top of sections C and/or D, as applicable.**

**Delete section B. if the proposal does not include a new or revised IN-PERSON course. As in section A. do not highlight but simply delete suggested options not being used. Always fill in b. 1 and B. 3 for context. NOTE: course learning outcomes and topical outlines only needed for new or substantially revised courses.**

|  | Old ([for revisions only](#Revisions)) ONLY include information that is being revised, otherwise leave blank. | New Examples are provided within some of the boxes for guidance, delete just the examples that do not apply. |
| --- | --- | --- |
| B.1. [Course prefix and number](#cours_title) |  | **BIOL 345** |
| B.2. Cross listing number if any |  |  |
| B.3. [Course title](#title) |  | **Advances in Human Physiology** |
| B.4. [Course description](#description) |  | **Students learn selected topics in human physiology through reading primary literature in a historical and contemporary context. Topics may include neurophysiology, cardiovascular physiology, respiratory physiology, reproductive physiology and renal physiology.** |
| B.5. [Prerequisite(s)](#prereqs) |  | **BIOL 111 and 112, or BIOL 201 and BIOL 203** |
| B.6. [Offered](#Offered) please read the screen tips to do this correctly, alternate years needs to be assigned odd/even, and a specific semester. |  | **As needed** |
| B.7. [Contact hours](#contacthours) |  | **6** |
| B.8. [Credit hours](#credits) |  | **4** |
| B.9. [Justify differences if any](#differences) | This course includes a 3 hour laboratory. | |

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| --- | --- | --- |
| B.10. [Grading system](#grading) |  | **Letter grade** |
| B.11. [Type of cours](#instr_methods)e |  | **Lecture | Laboratory** |
| B.12. CATEGORIES  12. a. [How](#required) to be used |  | **Restricted elective for Biology BS/Biology minor** |
| 12 b. Is this an Honors  course? |  | **NO** |
| 12. c. [General Education](#ge)  N.B. Connections must include at  least 50% Standard Classroom  instruction. |  | **No** |
| 12. d. Writing in the  Discipline (WID) |  | **NO** |
| B.13. [How will student performance be evaluated?](#performance) |  | **Attendance | Exams | Quizzes | Presentations** |
| B.14 [Recommended class-size](#class_size" \o "Check appendix XVIII in the UCC Manual for Best Practices) |  | **12** |
| B.15. [Redundancy statement](#competing) |  |  |
| B. 16. Other changes, if any |  | |

| B.17**.** [**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) |
| --- | --- | --- |
| Cellular energetics  Cell membrane review  Membranes and excitable tissues  Synaptic, Action potentials and propagation  Synapses and neurotransmission  CNS and integrated brain function  Skeletal muscle excitation contraction  Myocardial tissue and conduction pathway  Pacemaker potentials and contractile APs  Cardiac Cycle  EKG  CO, BP and TPR  Capillary dynamics  Ventilation and gas exchange  Gas transport and dissociation curves  Spermatogenesis and oogenesis  Hypothalamic control of cyclicity  Fertilization and early development  Decidualization and placentation  Renal function |  | Each outcome will be assessed based on a content exam as well as weekly quizzes and short in-class presentations of current literature relevant to each topic. |

| B.18. [**Topical outline**](#outline)**: DO NOT INSERT WHOLE SYLLABUS, JUST A TWO-TIER TOPIC OUTLINE suitable for the contact hours requested. Proposals that ignore this request will be returned for revision.** |
| --- |
| Cellular Respiration  Carbohydrate metabolism  Fat metabolism  Protein metabolism  Nucleotide metabolism  Cell membranes and transport mechanisms  Membrane structure  Diffusion and Osmosis  Active transport and endocytosis/exocytosis  Excitable Membranes  Ion gradients  Ligand and voltage gated channel proteins  Membrane potential  Local potential changes  Ligand gated channels  EPSPs and IPSPs  Summation of subthreshold stimuli  Action potentials  V-gated channels  Refractory period and propagation  Synapses  Electrical  Chemical  Neurotransmitters and receptors  Organization of brain function  Afferent (sensory)  Efferent (motor)  Learning and memory  Motor control  Skeletal muscle excitation contraction coupling  Twitch  Summation of contraction  Tetany  Cardiac muscle  Conduction pathway  Pacemaker potentials  Contractile cells Aps  Frank-Starling Law  EKG  Propagation of Aps through living tissue  Einthoven’s law  Abnormal EKGs  Cardiac Cycle  Cardiac Output, stroke volume and heart rate  Blood pressure and total peripheral resistance  Blood flow and Pouiseulle’s law  Capillary dynamics  Respiration  Ventilation  Gas exchange  Gas transport  Acid/Base balance and respiration  Regulation of respiration  Reproduction  Meiosis, spermatogenesis and oogenesis  Endocrine regulation of reproduction  Fertilization and early development  Implantation and placentation  Renal function  Filtration  Reabsorption  Secretion and acid/base balance |

**G. 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 their 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](mailto:curriculum@ric.edu) to the current Chair of UCC. Check UCC website for due dates. **Do NOT convert to a .pdf.**

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

| Name | Position/affiliation | [Signature](#_Signature" \o "Insert electronic signature, if available, in this column) | Date |
| --- | --- | --- | --- |
| Dana Kolibachuk | Chair of Biology | \*approved by email | 3/8/24 |
| Quenby Hughes | Dean of FAS | \*approved by email | 3/8/24 |

##### G.2. [Acknowledgements](#acknowledge): REQUIRED from OTHER PROGRAMS/DEPARTMENTS (and their relevant deans if not already included above) that are IMPACTED BY THE PROPOSAL.