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

|  |  |  |
| --- | --- | --- |
| A.1. [Course or program](#Proposal) | **Minor in Application of Artificial IntelligEnce** |  |
| [Replacing](#Ifapplicable)  |  |
| A. 1b. Academic unit | **School of Business**  |  |
| A.2. [Proposal type](#type) | **Program:** [**creation**](#creation) |  |
| A.3. [Originator](#Originator) | **Timothy Henry** | [Home department](#home_dept) | **CSIS (Computer Science and Information Systems)** |
| 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.  | The CSIS Dept would like to expand our offerings to include a minor in Application of Artificial Intelligence (AAI) to meet the demands of our existing and potential students and employers throughout Rhode Island. This new AAI minor uses a combination of existing computer science courses and three of the new courses in the AI Major. This minor differs from the AI Minor in that it is less math intensive and focuses on the use of AI in business and research thereby making it applicable and accessible to a broad range of students. Whereas the AI Minor gives students the tools and technical skill necessary to build and train AI models, the AAI Minor prepares students to use AI tools responsibly and ethically in the workplace (CSCI 141 and CSCI 342W). It also provides students with an understanding of the technical issues behind the implementation of AI models (CSCI 348) so that they can knowledgeably discuss risks and opportunities of integrating AI into business workflows. Artificial Intelligence (AI) and Machine Learning (ML) are rapidly transforming the world and are some of the most in-demand skills in the job market today. AI is being used in a wide range of industries, from healthcare to finance to defense to manufacturing, and is expected to create 133 million new jobs by 2030 ([McKinsey](https://www.mckinsey.com/featured-insights/artificial-intelligence/five-fifty-fear-fear-not)). About 65% of companies are currently using AI internally, while 74% are testing it ([Deloitte](https://www2.deloitte.com/us/en/pages/about-deloitte/articles/technology-trust-ethics-annual-report.html)). Almost 25% of jobs are expected to be “disrupted” by AI over the next five years ([World Economic Forum](https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf)). ***Rhode Island College has a responsibility to prepare our graduates for this new workplace.***The CSIS Dept at Rhode Island College currently offers B.S. degrees in Computer Information Systems, Computer Science and Cybersecurity and a B.A. in Computer Science. It also offers minors in Cybersecurity, Data Analytics, and Web Development. Rhode Island College has the opportunity to become a leader in this field as few other peer university in the region offers a bachelor’s degree in Applied Artificial Intelligence or Machine Learning. Most schools offering undergraduate degrees in AI are large research schools. |
| A.5. [Student impact](#student_impact)Must include to explain why this change is being made? | The new program has the potential to attract *new* students to the college and meet the increasing hiring demands of local and national employers. Students from a wide range of majors can take this program to prepare for the growing presence of AI in the workplace.This program packages computer science and artificial intelligence courses in a way that supports many programs. Students from a broad range of majors will bring exciting perspectives to students in the artificial intelligence major taking these courses and expand the learning opportunities for all our students.  |
| A.6. [Impact on other programs](#impact)  | Other minors may see a slight decrease in enrollment as students take courses in the Application of Artificial Intelligence Minor.  |
| A.7. [Resource impact](#Resource) | [*Faculty PT & FT*](#faculty):  | Existing CSCI faculty and/or adjunct faculty will teach the courses. Depending on the growth of the new AI Program, additional faculty and adjuncts may be needed. |
| [*Library*:](#library) | None |
| *Technology (for in person delivery)* | None. Courses will use existing classrooms and/or computer labs. |
| *Technology: (for online delivery. Must be RIC supported)* | None |
| [*Facilities*](#facilities): | None. Courses will use existing classrooms and/or computer labs. |
| A.8. [Semester effective](#Semester_effective) | **Fall 2024** | A.9. [Rationale if sooner than next Fall](#Semester_effective) | **N/A** |
| 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:**Undergraduate Business Programs** – add AI major to page<https://www.ric.edu/academics/undergraduate-programs/undergraduate-business-programs>**Institute for Cybersecurity and Emerging Technologies** – add link to AI major page.<https://www.ric.edu/academics/institute-cybersecurity-emerging-technologies> |
| A. 12 **Check to see if your proposal will impact any of our** [**transfer** **agreements,**](file:///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.****N/A** |
| 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.**N/A** |

### **E.** [**Program Proposals**](#program_proposals) **For IN-Person or mixed modalities (for fully online programs: see section F):**

### **Complete only what is relevant to your proposal. Delete section E. if not needed. PLease add in the 2020 CIP number for MAJOR revisions or new programs in E 2; these can be found at** [**https://nces.ed.gov/ipeds/cipcode/browse.aspx?y=56**](https://nces.ed.gov/ipeds/cipcode/browse.aspx?y=56) **consult with Institutional research to be sure you select the correct one.**

|  |  | New/revised |
| --- | --- | --- |
| E.1. [Enrollments](#enrollments) Must be completed. |  | **40** |
| E. 2. [2020 CIP number](#CIPnumber" \o "THESE CAN BE FOUND AT HTTPS://NCES.ED.GOV/IPEDS/CIPCODE/BROWSE.ASPX?Y=56 CONSULT WITH INSTITUTIONAL RESEARCH TO BE SURE YOU SELECT THE CORRECT ONE.) |  | **11.0102** |
| E.3. [Admission requirements](#admissions) |  | **N/A** |
| E.4. [Retention requirements](#retention) |  | **N/A** |
| E.5. [Course requirements](#course_reqs) for each program option. Show the course requirements for the whole program here. |  | **Required Courses (20 credits)*** **CSCI 141** Applications of Artificial Intelligence [4 cr] **(NEW)**
* CSCI 157 Introduction to Algorithmic Thinking in Python [4 cr]
* CSCI 209 Programming Implementation of Discrete Structures [4 cr]
* **CSCI 342W** Social and Ethical Issues in Technology [4 cr] **(NEW)**
* **CSCI 348** Artificial Intelligence in Gaming [4 cr] **(NEW)**
 |
| E.6. [Credit count](#credit_count) for each program option |  | **Required Courses (20 credits)****Total: (20 credits)** |
| E.7. Note any needs for program accreditation (if relevant).  |  | **N/A** |
| E.8 Program modality. Online percentage of delivery; calculate % within required hybrids and the total for the program cannot go over 49%  |  | **Mixed course types (20 - 25 % online)** |
| E.9 Will any classes be offered at sites other than RIC campus or the RI Nursing Ed. Center?\* |  | **NO** |
| E. 10. Do these revisions reflect more than 25% change to the [program?\*](file:///Users/sabbotson/Documents/Curriculum/Program%20goals)  |  | **NO** |
| E.11. [Program goals](file:///Users/sabbotson/Documents/Curriculum/Program%20goals)Needed for all new programs |  | Upon the completion of this program, students will be able to:* Evaluate the performance of AI models, considering metrics like accuracy, precision, recall, and F1-score.
* Compare and contrast various AI techniques for specific applications, identifying their strengths and weaknesses.
* Critically assess the ethical, legal, and societal impacts of AI technology by examining issues like bias, fairness, and privacy to make well-informed recommendations and decisions.
* Assess the economic and business value of AI solutions, considering factors like cost-effectiveness, return on investment, and market feasibility.
 |
| E.12. Other changes if any |  | **N/A** |

\* If answered YES to either of these questions will need to inform Institutional Research and get their acknowledgement on the signature page.

## **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 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 |
| --- | --- | --- | --- |
| Suzanne Mello-Stark | Chair of Computer Science and Information Systems | \*approved via email | 2/23/24 |
| Marianne Raimondo | Dean of School of Business | \*approved via email | 2/23/24 |

##### G.2. [Acknowledgements](#acknowledge): REQUIRED from OTHER PROGRAMS/DEPARTMENTS (and their relevant deans if not already included above) that are IMPACTED BY THE PROPOSAL. SIGNATURE DOES NOT INDICATE APPROVAL, ONLY AWARENESS THAT THE PROPOSAL IS BEING SUBMITTED. CONCERNS SHOULD BE BROUGHT TO THE UCC COMMITTEE MEETING FOR DISCUSSION; all faculty are welcome to attend.

| Name | Position/affiliation | [Signature](#Signature_2) | Date |
| --- | --- | --- | --- |