Please complete all applicable sections of this template for each AI-related program seeking recognition from Vector as contributing to the AI-Master’s Initiative. Refer to the [*Guidance for AI-related Master’s Programs*](https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Ascds%3AUS%3A5a24eba9-38d0-4978-8953-7187b0ff8243) document prior to making a submission.

**AI-RELATED PROGRAM SUBMISSION TO THE VECTOR INSTITUTE**

Please send completed templates to AImasters@vectorinstitute.ai.

|  |
| --- |
| **SECTION I – Program details** |
| **University:** |  | **Degree type (e.g. MSc, MASc):**  |  |
| **Program name:** |  | **Program duration (in months):** |  |
| **Program category:** Core Technical AI-related □ Complementary AI-related □**Program type:** Coursework Based □ Thesis □**Study options:** Full-Time □ Part-Time □ |
| **Program type** | **Has OUCQA approval been obtained?** Yes □ No □  |
| Track 1 □  | Yes □ No □ N/A □  | Is this a collaborative specialization?[[1]](#footnote-1) | Yes □ No □  |
| Track 2 □  | Yes □ Expected program launch date:  |
| Track 3 □ | Yes □ Expected program launch date:  |
| **What AI-related fields are required curriculum for students; which are optional?** Check all that apply.

|  |  |  |
| --- | --- | --- |
|  | Required | Optional  |
| General Data Science | □ | □ |
| General Machine Learning  | □ | □ |
| General Deep Learning | □ | □ |
| Computer Vision  | □ | □ |
| Natural Language Processing | □ | □ |
| Reinforcement Learning | □ | □ |
| Intelligent Robotics  | □ | □ |
| Computational Healthcare  | □ | □ |
| Other, please specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |
| Other, please specify:  |  |  |

 |
| Program description *(briefly outline the objectives of the program, the program structure (e.g. coursework, technical training, internship, practical application, etc.) and describe the special features of the program that prepare graduates to contribute to meeting the capacity needs in the program’s specific AI-related area, and anticipated employment outcomes). For Track 1 programs, highlight the enhancements made.*Maximum 1 page. |
|  |
| **SECTION II (to be completed for Track 1 collaborative specializations only)** |
| List all departments/programs involved in the specialization and for each parent program: a) specify the AI-related field(s) associated with the program; and b) attach the program description, degree requirements, calendar description of all courses and/or other curricular components denoting those which are required or elective. *(Please add rows as required.)*  |
| Department *e.g., Computer Science* | Parent program related AI-field(s) *e.g., computer vision and natural language processing* |
| 1. |  |
| 2. |  |
| 3. |  |
| 4. |  |

|  |
| --- |
| **SECTION III – Essential Requirements (to be completed for all programs).** ***For collaborative specializations please identify what components of the curriculum are common requirements for all students and which are to specific to a department/program.*** |
| **1.** Describe the curriculum components and associated learning outcomes related to communication, teamwork and interdisciplinary practice related to AI. If you are referencing specific content in course syllabi please attach them to your submission.  |
|  |
| **2.** Describe the curriculum components, specific topics covered, and associated learning outcomes related to the ethics and societal implications of AI that ALL students will complete. |
|  |
| **3a. To be completed by core technical AI-related programs in STEM only.** Please demonstrate below how your program includes **at least three (3) curriculum components** [[2]](#footnote-2) with at least one (1) learning outcome focused on AI-related methodologies and applications respectively. |
| **AI Methodologies** *Learning outcomes should focus on the application of AI-related methodologies to ensure that graduates have knowledge and skills related to algorithms and representations regardless of their application area. The focus of the AI-related methodology component(s) will vary depending on the master’s program but it is strongly recommended that a machine learning curriculum component be offered.* |
|  |
| **AI-related application area(s)***Learning outcomes should focus on AI-related application area(s) in-depth to ensure that graduates are able to apply AI-related methodologies and have knowledge of their limits in solving problems. The focus of the AI-related application component(s) will vary depending on the master’s program.* |
|  |
| **3b. To be completed by complementary AI-related programs only**Describe the curriculum components and associated learning outcomes focused on AI-related applications and/or methodologies related to the primary field of study. The curriculum should include **at least 3 AI-related curriculum components** with program level learning outcomes that should ensure that graduates have sufficient knowledge of the relevant AI-related applications and methodologies to be able to contribute to AI-related work, providing essential input to the development, refinement, evaluation and implementation of AI-related methods, tools, products and services in real world settings.  |
| **AI Methodologies** *Learning outcomes should focus on the application of AI-related methodologies to ensure that graduates have knowledge and skills related to algorithms regardless of their application area. The focus of the AI-related methodology component(s) will vary depending on the master’s program, but it is strongly recommended that a machine learning curriculum component be offered.* |
|  |
| **AI-related application area(s)***Learning outcomes should focus on AI-related application area(s) in-depth to ensure that graduates are able to apply AI-related methodologies and have knowledge of their limits in solving problems. The focus of the AI-related application component(s) will vary depending on the master’s program.* |
|  |

|  |
| --- |
| **SECTION IV – Enrolment and curriculum delivery**  |
| Indicate the current or projected program (or collaborative specialization) intake and specify expected enrolment growth. Describe the scalability of the program including additional resources that would be required to support increased enrolment. |
| **Enrolment Estimates**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Current Enrolment (2019-20) | Projected Enrolment Intake (2020-21) | Projected Total Enrolment (2020-21) | Projected Enrolment Intake (2021-22) | Projected Total Enrolment (2021-22) |
|  |  |  |  |  |

How program can be scaled: |
| List all AI-related curriculum components (e.g. course title and number, capstone project, etc) associated with the AI-related program (or collaborative specialization) and the faculty members with primary responsibility for delivering each component. *(add rows as required)* |
| Curriculum component | Specify if required (R) or elective (E) | Faculty instructor(s) | Rank | Home Department |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

|  |
| --- |
| **SECTION V – University Signatures** |
| Position Title | Name & email address | Signature & Date |
| Program Director |  |  |
| Department Head |  |  |
| Faculty Dean |  |  |
| Dean, Graduate Studies (or delegate) |  |  |
| Provost or delegate |  |  |

**Supporting documents to include as part of the submission:**

* AI-related course outlines or detailed course descriptions (including descriptions of capstone projects, internships, summer school, and/or other curricular components).
* CVs of all core faculty, i.e. all those with responsibility for course instruction or delivery of other curricular components (common CV, NSERC form 100, or other format)
* Student calendar copy (if available)
* For each ‘parent’ program contributing to a collaborative specialization, provide program descriptions, calendar description of all courses and/or other curricular components denoting those which are required or elective (as per instructions, template Section II).
* Additional information as may be requested by the panel

NOTE: To monitor progress toward achieving the goals of the AI-master’s initiative, programs recognized by Vector will be asked on an annual basis to provide information on the number of complete applications received from prospective students (domestic / international), enrolments (intake and total), degree completions and employment outcomes of program graduates.

|  |
| --- |
| **Section VI - For Vector’s internal use only** |
| Submitting University: | Date received: |
| University reviewers contacted |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
| Industry/employer reviewers contacted |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
|  | Agreed: Yes □ No □ | Conflict of interest: Yes □ No □ |
| Panel recommendation: |
| Feedback for submitting institution: |

1. Collaborative specializations are intra-university fields of study that bring together the expertise from two or more existing master’s programs (parent programs) to provide required (core) curricular components in the area of specialization. [↑](#footnote-ref-1)
2. [Reference Resources\Guidance for AI-Related Masters Programs Nov 2019.pdf](Reference%20Resources/Guidance%20for%20AI-Related%20Masters%20Programs%20Nov%202019.pdf) [↑](#footnote-ref-2)