VECTOR INSTITUTE | INSTITUT VECTEUR

PROCESS FOR ACQUIRING VECTOR'S RECOGNITION OF MASTER'S PROGRAMS IN AI-RELATED AREAS

BACKGROUND

1000AIMs is an initiative of the Vector Institute (Vector) to address the province of Ontario's goal of accelerating the number of artificial intelligence (AI)-related master's graduates to 1,000 per year by 2023. To achieve this goal, universities with expertise in AI-related areas are invited to expand or enhance relevant existing master's program or create new AI-related programs to: 1) meet the essential requirements articulated by Vector[1] for core technical AI and complementary AI-related fields; and 2) prepare highly qualified graduates who demonstrate area-specific advanced knowledge, skills and competencies sought by the AI-sector to build a highly skilled workforce and support economic growth and productivity. Programs must prepare graduates to meet all essential requirements as well as advanced AI field-specific learning outcomes.

Programs recognized by Vector will be identified as academic partners and listed on Vector's website as part of the 1000AIMs initiative. Students enrolled in recognized programs will be eligible for scholarships, have access to paid internships through Vector's network of industry partners and be provided with networking opportunities.

PROGRAM TRACKS

Programs will fall into one of three tracks:

Track 1: Enhanced or expanded existing master's programs. These programs currently exist and offer substantial content in an AI-related field. Curricular components[2] and/or a collaborative specialization[3] may be necessary additions to prepare graduates to meet the essential requirements of a core technical AI-related STEM program or a complementary AI-related program.

Track 2: New master's programs in core technical AI-related STEM or complementary AI-related fields. These are newly created programs built on existing strength in AI-related areas to produce highly qualified graduates to build capacity in core technical AI-related fields or complementary AI-related fields. These programs are expected to be have higher tuition fees than thesis-based masters and may be full cost recovery.

[1] Refer to the guidance document Guidance for 1000AIMs AI-related Master's Programs.
[2] A curriculum component will often be a course (in-person or online), but a program could prepare master's graduates through various combinations of: classroom learning, distance learning, culminating or capstone projects, summer school, faculty-supervised research projects, etc. A curriculum component could be a topic or competency that is developed as a thread through multiple courses as opposed to a stand-alone component.
[3] Collaborative specializations are intra-university fields of study that bring together the expertise from two or more existing master's programs to provide required (core) curricular components in the area of specialization.

Track 3: New joint or distributed program in core technical AI-related STEM or complementary AI-Related field. These are inter-institutional joint programs delivered by two or more universities to leverage their respective resources and expertise in AI-related areas.

Note that tracks 2 and 3 require approval to commence from the Ontario Universities Council on Quality Assurance (OUCQA) prior to seeking recognition from Vector; however, universities are encouraged to consult with Vector early in the development stage if they plan to be part of the 1000AIMs initiative. Track 1 programs that have been modified or enhanced should have their program director consult with the appropriate office at their university to determine what approvals may be required.

PROCESS

Universities seeking Vector recognition for an AI-related master's program are invited to submit a completed template (attached) and supporting documents. Initially, and to support programs that will be delivered in fall 2018, 1000AIMs Panel meetings shall be convened as submissions are received. The plan is to move to regular scheduled meetings after fall, 2018.

Vector 1000AIMs Program Review Panels (1000AIMs Panels) will review core technical and complementary AI-related programs submitted by universities and make recommendations to Vector regarding which programs should be recognized by Vector. 1000AIMs Panels will determine whether the essential requirements are fulfilled (as outlined in the Guidance document), whether the AI-related curriculum components are of sufficient substance to meet AI-employer needs in the program-related AI sector, and provide comments, suggestions and feedback to the program contact for consideration. Note that while 1000AIMs Panel recommendation is required for program recognition by Vector, it is not a substitute for Ontario's quality assurance process.

To streamline the process for program recognition, the documentation universities are asked to provide are generally in existence and/or have been developed for quality assurance purposes (see template for details) and will include:

- Program description
- Description of the curricular components and associated learning outcomes that address:
    1. each of the essential requirements, as outlined in the Guidance document:)
        a. AI-related methodologies and applications (at least three (3) AI-related curriculum components);
        b. communication, teamwork and practice related to AI; and
        c. the ethics and societal implications of AI; and
    2. additional requirements specific to the AI-related field of study (i.e., those over and above those described in (1) above).
- Enrolment projections (intake, total and steady-state)

- List of core faculty members contributing to the program delivery (i.e. instructors, supervisors, etc.)
- Examples of supporting documents (course outlines or detailed course descriptions, CVs for faculty delivering AI-related components, descriptions of capstone, internship, summer school and/or other program AI-related requirements)

Note: The 1000AIMs panel may request additional information or seek clarification on the submission if unable to arrive at a recommendation.