**New Undergraduate Program (Majors, Minors, Sequences) Proposal
Illinois State University - University Curriculum Committee**

**Program Department**   School of Information Technology

**Submission Date**  Tuesday, November 21, 2023

**Initiator**   Traci Carte

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**Initiator Department**   School of Information Technology

**Coauthor(s)**   Elahe Javadi (ejavadi@ilstu.edu)

**Version**   3   **ID**   464

**Title of New Program**   Artificial Intelligence (AI) and Decision Making

**Proposed Starting Catalog Year**   2025-2026

**Associated Course Proposals**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Course** | **Title** | **Version** | **Proposal Type** | **Initiator** |
|  | IT 215 | Introduction to Applied Artificial Intelligence | 2 | New Course | James Wolf |
|  | IT 244 | Introduction to Business Intelligence | 3 | Revise Course | Pruthikrai Mahatanankoon |
|  | IT 312 | Applications of Artificial Intelligence and Machine Learning | 2 | New Course | James Wolf |
|  | IT 344 | Techniques and Tools in Applied Machine Learning | 3 | Revise Course | Elahe Javadi |

**1.**

**Proposed Action**

New Major

New Minor

✓

New Sequence

More than 50% of courses in this program are Distance Education

**Sequence Major**

BS Information Systems

**2.**

**Provide *Undergraduate Catalog* copy for new program.**

Major Requirements

Minimum required credit hours: 82

* ACC 131
* COM 223
* ECO 101
* ECO 102
* IT 168
* IT 178
* IT 191
* IT 214
* IT 244
* IT 250
* IT 254
* IT 261
* IT 262
* IT 276
* IT 215
* IT 312
* IT 344
* IT 378
* IT 398
* MAT 160
* MGT 220

Take 1 of the following

* MAT 120
* MAT 145

Take 1 (3 credit hours) from the following

* IT 330\*
* IT 367\*
* IT 368
* IT 377

Take 1 of the following

* ECO 138
* MGT 100
* PSY 138

Take 1 of the following

* COM 227
* ENG 249

Take 1 of the following

* ACC 132
* ECO 225
* ECO 239
* ECO 245
* FIL 240
* MKT 230

**Notes**

* Acceptable substitution for 3 hours of IT 398 is 3 hours of IT 391
* Acceptable substitution for 6 hours of IT 398 is 3 hours of IT 391 and 3 additional hours from IT 330, IT 340, IT 351, IT 353, IT 355, IT 356, IT 367, IT 382, IT 385, IT 388 (if not used to satisfy other requirements). \*If IT 330 or IT 367 are taken to satisfy a requirement above, the course may not be used towards this requirement.

**3.**

**Provide a description for the proposed program.**

The Artificial Intelligence (AI) and Decision making is a sequence in Information Systems.

Information Systems (IS) is at the heart of any organization. Companies rely on information to make good decisions, create new products and services, and understand their target audience. IS professionals integrate hardware and software to help organizations manage their information.

The Information Systems program at Illinois State is accredited by the Computing Accreditation Commission of ABET.

AI involves a combination of computer science and large datasets to enable problem solving. Organizations are increasingly making use of AI, and students graduatiing into the IT profession need to become skilled users of this technology.

In this major, you learn what AI is, how to evaluate the data on which it is based, ethical concerns and how to determine the usefulness of its applications. We cover topics such as:

* What artificial intelligence is and what it is not
* How to evaluate and understand the datasets used as the source of training for its "intelligence"
* Ethical uses of AI, ethical concerns surrounding AI
* Best case uses of AI in business organizations

Courses will include:

IT215 – Introduction to Applied Artificial Intelligence\*

IT244 – Business Analytics for Artificial Intelligence

IT312 – Applications of AI and Machine Learning\*

IT344 – Techniques and Tools in Applied Machine Learning

\*Indicates newly developed courses

**4.**

**Provide a rationale of proposed program.**

The rationale for this program is two-fold: 1) enrollment in the IS major has been declining since cybersecurity became a stand-alone major - it was previously a popular sequence in the IS major (suggesting a new sequence is needed), 2) developing within students an applied understanding of generative AI prepares them for the job market they will face. Recruiters are definitely interested.

**5.**

**Describe the expected effects of the proposed program on existing campus programs (if applicable).**

Potential opportunity to make some AI coursework more broadly available. Specifically, IT215 is being created without pre-reqs. This could be valuable to other programs.

**6.**

**Provide a sample four-year plan of study that fulfills the following requirements:** 120 hours, 42 senior college hours (200 and 300 level courses), and 39 General Education Program hours or 36 hours with exemption. If the program is a BS program, show the BS-SMT degree requirement. If the program is from CAS, show Foreign Language Requirement (LAN 111/LAN 112). Confirm General Education requirement exemptions on the General Education page of the current Academic Catalog.*4-year plans are not required for minor program proposals.*

First Year - Fall Semester (15 credit hours)

ENG 101 or COM 110 (General Education) (3)
IT 168 (General Education) (4)
MAT 120 or MAT 145 General Education course (4)
General Education course (3)
University-wide elective (1)

First Year - Spring Semester (15 credit hours)

ENG 101 or COM 110 (General Education) (3)
IT 178 (3)
General Education course (3)
General Education course (3)
IDEAS or University-wide elective (3)

Second Year - Fall Semester (15 credit hours)

IT 191 (1)
IT 215 (3)
ECO 101 (3)
MAT 160 (B.S.–SMT) (4)
General Education course (3)

University-wide Elective (1)

Second Year - Spring Semester (15 credit hours)

IT 261 (3)

IT 254 (3)
ECO 138 or MGT 100 or PSY 138 (General Education) (3)
ECO 102 (3)
General Education course (3)

Third Year - Fall Semester (15 credit hours)

IT 214 (3)
IT 244 (3)
ACC 131 (3)
General Education course (3)
General Education course (3)

Third Year - Spring Semester (15 credit hours)

IT 250 (3)
IT 344 (3)
IT 378 (3)
MGT 220 (3)
COM 223 (3)

Fourth Year - Fall Semester (15 credit hours)

IT 276 (3)

IT 262 (3)
Business major elective (3)
General Education course (3)
AMALI or University-wide elective (3)

Fourth Year - Spring Semester (15 credit hours)

IT 312 (3)
IT major elective (3)
IT 398 (6)
COM 227 or ENG 249 (3)

**7.**

**Describe the expected curricular changes required, including new courses. If proposals for new courses have also been submitted, please reference those related proposals here:**

We will modify two existing courses (IT244 and IT344) to include more content specific to AI. Two courses are being developed - IT 215: introduction to Applied AI and IT 312: Applications of AI and ML. Proposals for those courses are submitted with this proposal.

**8.**

**Anticipated funding needs and source of funds.**

No funding needs anticipated until seuqnce expeeds enrollment expectations of 50 students.

**9.**

**No**

**Does this program count for teacher education?**

**10.**

**No**

**Is this an Interdisciplinary Studies program?**

**11.**

**The following questions must be answered.**

**No**

Have you confirmed that Milner Library has sufficient resources for the proposed program?

Explain why Milner Library has not been contacted.

NA

**No**

Are more than 120 hours required to complete a degree with this major?

**No**

Beyond General Education, does the major require more than 66 semester hours?

**No**

Does this sequence (if in a major) require more than 55 semester hours of courses in the major department/school?

**No**

Does this program stipulate specific general education courses offered in the major department/school as a part of the major requirements only if such courses serve as prerequisites for other courses required by the major?

**No**

Does this program stipulate specific course requirements (majors/sequences only) that also satisfy general education and/or IAI requirements?

**No**

Is the proposed program intended to be longer than four years (as indicated by the plan of study)?

**Yes**

Have letter(s) of concurrence from affected departments/schools been obtained?
*A departments/school is affected if it has a program with significant overlap or if it teaches a required or elective course in the program.*

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please disable the "pop-up blocker" feature of your internet browser.*

**Financial Implications Form**

*If new window does not appear after clicking the View Financial Implications button,
please disable the "pop-up blocker" feature of your internet browser.*

**12.**

**Routing and action summary for New Program:**

[**Proposal Routing**](https://registrarforms.illinoisstate.edu/CurriculumForms/Support/Routing.aspx)

**1. School of Information Technology Department Curriculum Committee Chair**

*Elahe Javadi (website)*

Elahe Javadi

10/30/2023 7:02:19 PM

Signature

Print

Date

**2. School of Information Technology Department Chair/School Director**

*Traci Carte (website)*

Traci Carte

10/30/2023 7:02:41 PM

Signature

Print

Date

**3. College of Applied Science and Technology College Curriculum Committee Chair**

*Elizabeth Sattler (website)*

Elizabeth Sattler

11/28/2023 11:00:42 AM

Signature

Print

Date

**4. College of Applied Science and Technology College Dean**

*Cara Rabe-Hemp (website)*

Cara Rabe-Hemp

1/4/2024 1:55:01 PM

Signature

Print

Date

**5. University Curriculum Committee Chair**

*Joshua Newport (website)*

Joshua Newport

2/22/2024 9:28:04 AM

Signature

Print

Date

All new programs (majors, minors, sequences) are routed by the U.C.C. to the Academic Senate

**Comments**

**Comments from Version 1 from Elahe Javadi ( Department Curriculum Committee Chair):**
initial
**Comments from Version 2 from Elahe Javadi (School of Information Technology Department Curriculum Committee Chair):**
Thanks
**Comments from Version 2 from Elizabeth Sattler ( College Curriculum Committee Chair):**
CCC approves pending the following changes/clarifications:
- For Title of New Program, consider spelling out Artificial Intelligence (as is done in several of the course proposals)

- In Undergraduate Catalog, IT 341 & 345 are not in course catalog. What is the status of these courses?
MGT 100 should be a required course or removed as a pre-requisite.
- In the four-year plan of study, second year, fall semester - The hours total up to 14, not the 15 listed.
- In questions section, Does this program stipulate specific course requirements (major/sequences only) that also satisfy general education and/or IAI requirements? Answer should be Yes.
**Comments from Version 3 from Elahe Javadi (School of Information Technology Department Curriculum Committee Chair):**
Thanks