

MS in Artificial Intelligence Engineering (Operations and Decision Science)

Under Review | Fall 2026

Proposal Information

Workflow Status

In Progress

Graduate Council Agenda Preparation, Graduate College Curriculum

expand ▲

Waiting for Approval | Graduate Council Agenda Preparation

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Kayla Durazo

Proposal to Establish a New Program

Requested Term & Year (The first term for which applications will be accepted and students admitted.) ⓘ

Fall 2026

This proposal can also be viewed at:
<https://asu.kuali.co/cm/#/programs/print/6774302d5772f18cb3c0b7cf>

General Information

Select Program Level and Type

Graduate master's concentration

General Program Information

College/School/Institute

Ira A. Fulton Schools of Engineering (CES)

Department/Division/School

School of Computing and Augmented Intelligence (CCMPINFDEC)

Name of Program

MS in - Artificial Intelligence Engineering (Operations and Decision Science)

Program

Artificial Intelligence Engineering (Operations and Decision Science)

Degree Type

Master of Science (MS)

Proposing Faculty Group

N/A

Responsible Faculty Member or Director

Baoxin Li

Campus or Location options

Tempe

Add a Different Campus or Location

No

Are you requesting an online offering?

No

Program Description/Justification



The use of Artificial Intelligence (AI) approaches, including machine learning, natural language processing, computer vision, robotics, pattern recognition, etc., is becoming widespread in many fields including all engineering disciplines. Some prominent universities, such as Carnegie Mellon University (Master's of AI Engineering, with several concentrations in different engineering disciplines), are already offering degrees similar to the proposed MS in AI Engineering (Operations and Decision Science). The proposed degree combines advanced study in AI approaches with deep domain expertise in industrial engineering. Operations research is a fundamental component of industrial engineering, and provides much of the scientific background for rational decision making in industrial environments. Students will learn how to develop and customize relevant AI approaches, such as those mentioned above, to industrial engineering problems involving operations research and decision science. The MS in AI Engineering (Operations and Decision Science) program will combine a deep understanding of artificial intelligence and machine learning with the principles of industrial engineering, in particular operations research and decision science. This goal is supported through core classes that include both AI-based courses and fundamental and advanced industrial engineering courses, and additional concentration and elective courses.

Graduates from this program will understand AI systems and how they are created or used both technically and societally. Graduates will know how these systems/tools work “under the hood” so that they can make them effective and ethical. This may not necessarily mean programming or building AI, but ready to use, apply, question, evaluate, and implement AI technologies in diverse fields. Graduates will become the “go to” employees when others in a company need AI explained to them “in plain language,” to help evaluate AI-based solutions, or to help “translate” between different teams (developers, marketing, users, admins). Skills in programming languages, relevant mathematics, AI models such as Naive Bayes, linear discriminant analysis, Hidden Markov, Gaussian mixture models, etc., machine learning algorithms such as linear regression, support vector machines, decision trees, platforms such as Keras, PyTorch, and Theano, as well as familiarity with ethical issues and constraints on the use of AI will be developed through core classes required of all graduates and concentration-specific classes.

The proposed MS in AI Engineering (Operations and Decision Science) meets the ASU design aspiration to “fuse intellectual disciplines” by extending AI subjects normally offered mostly for computing students to graduate students from a variety of engineering disciplines. The proposed concentration would allow students with an industrial engineering background to learn what AI has to offer while continuing their learning in industrial engineering. Particular applications of AI in industrial engineering include production line automation, improved predictive maintenance, enhanced supply chains, etc. Similarly, the proposed degree concentration addresses aspirations to “be socially embedded” and “practice principled innovation” by explicitly considering human needs and impact in AI design. This concentration not only emphasizes the technical mastery of AI tools and their applications but also promotes a holistic understanding of their ethical, environmental, and societal impacts, preparing graduates to make significant contributions to the field while adhering to the highest standards of professional integrity.

Program Need



Although the U.S. Bureau of Labor Statistics Occupational Outlook Handbook does not yet have the category “AI Engineer,” ZipRecruiter notes that the “job outlook for careers in artificial intelligence is excellent” (<https://www.ziprecruiter.com/e/What-Is-the-Job-Outlook-for-Careers-in-Artificial-Intelligence>; accessed 3/24/2024). Indeed, on the other hand, provided a list of 18 jobs “that may offer AI opportunities,” including computer engineer, manufacturing engineer, mechanical engineer, aerospace engineer, electrical engineer, robotics engineer, software engineer, etc. (<https://www.indeed.com/career-advice/finding-a-job/jobs-in-ai>; accessed 3/24/2024). It is important to note that this list includes many engineering disciplines that are not normally associated with AI, such as mechanical, aerospace, manufacturing, and electrical engineering. The proposed MS in AI Engineering (Operations and Decision Science) targets industrial engineering. A recent article describes how AI has impacted “predictive maintenance, operational optimization, robotics, quality control, and supply chain management,” all fields in which industrial engineers play a critical role (Lin, 2024, “Artificial Intelligence in the Industrial Engineering,” *Advances in Operation Research and Production Management*, 10.54254/3006-1210/direct/0106). Finally, it’s been estimated that AI could contribute as much as \$15.7 trillion to the global economy by 2030, thus highlighting its huge potential (<https://www.pwc.com/gx/en/issues/data-and-analytics/publications/artificial-intelligence-study.html>; accessed 3/24/2024).

ASU is already a leader in the use of AI, such as through the partnership with OpenAI (<https://ai.asu.edu/>), but does not yet offer an AI graduate program in engineering that meets the needs and expectations of the future industrial engineering workforce. For example, The Wall Street Journal reports that “tech” jobs are flat or slightly declining, while “AI” jobs continue to increase (Sep 11, 2024). The intended audience for this program are students with an undergraduate degree in industrial engineering, math, chemistry, or other industrial engineering-related degrees who desire advanced skills in industrial engineering while at the same time boosting their AI skills. In other words, we are targeting students who recognize that the industrial engineering jobs of the future will require the skilled use of AI tools to remain competitive. The recently launched MS in AI Engineering, with a number of already approved and pending concentrations, does not yet include any concentrations tailored to such industrial engineering students, and therefore the proposed concentration complements these other concentrations. Anecdotally we find that an MS in AI Engineering (Operations and Decision Science) degree is attractive to prospective students, as we’ve learned through recent recruiting events. Complementary programs at ASU include the MS in AI in Business degree, as mentioned above. Outside of ASU the Carnegie Mellon University degree (Master’s of AI Engineering; also mentioned above) is also complementary. There is overlap with the Carnegie Mellon University program as it also targets engineering students, but they do not appear to offer a concentration targeted to industrial engineers. On the other hand, the WP Carey degree targets business students, so the overlap is not considered significant.

Specialized Accreditation



N/A

State Authorization and Professional Licensure:

State Authorization and Professional Licensure:

Does this degree program include learning placement opportunities (clinical, externship, internship, research, student teaching, etc.)? ⓘ

N

Will this degree program be offered via distance education (whole or in-part)?

N

Will in-person instruction be occurring in any jurisdiction, other than the State of Arizona? ⓘ

N

Does this degree program potentially lead to professional licensure or certification (attorney, nurse, physician, teacher, etc.) for the student? ⓘ

N

Collaborating Units

Are two or more academic units collaborating on this program?

Yes

Collaborating Units

School for Engineering of Matter, Transport and Energy (CMULTISCI)

School of Computing and Augmented Intelligence (CCMPINFDEC)Electrical Engineering Program (CELECENG)

Polytechnic School (CPOLY)School of Biological & Health Systems Engineering (CBIOHEAENG)

School of Manufacturing Systems and Networks (CMSN)School of Sustainable Engineering & Built Environment (CSUSENG)

Nature of Collaboration

The proposed MS in AI Engineering (Operations and Decision Science) will be housed administratively within the School of Computing and Augmented Intelligence (SCAI) of the Fulton Schools of Engineering (FSE).

Is this an officially recognized joint program?

No

Collaboration and Impact

List other academic units or programs that might be impacted by the proposed program and describe the potential impact (e.g., how the implementation of this program might affect student headcount/enrollment, student recruitment, faculty participation, course content, etc. in other programs) and how the programs might complement each other. If there are no comparable programs, describe why the program is unique at ASU. ?

Recently a new degree entitled "MS in Artificial Intelligence in Business" was developed by the ASU WP Carey School of Business, and there is an Artificial Intelligence concentration in the existing MS in Robotics & Autonomous Systems degree offered by the ASU Fulton Schools of Engineering. The former is clearly focused on business applications, while the latter is focused on robotics applications. The proposed degree program will have little or no overlap with the one offered by WP Carey, but it is possible that some robotics students may be drawn to the proposed degree because of its more general treatment of AI subjects. The University of Arizona offers a BS in Applied Computing and describes it as an "artificial intelligence degree," but this will not compete with our proposed graduate degree. Northern Arizona University does not appear to offer any degrees comparable to the proposed MS in AI Engineering.

The proposed concentration is unique compared to the other approved and pending concentrations for the MS in AI Engineering degree in that the focus is on industrial engineering applications, particularly operations research and decision science. We see little impact on the existing MS in Management of Technology degree, which does not include any core classes on AI.

Attach a PDF copy of the letter of collaboration and impact from each Dean, or Dean's designee at the Assistant or Associate Dean level, from impacted programs and units consulted. ?

- Herberger_ Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf
- LAW - Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf
- New College - Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf
- Technology for Public Health_ Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf
- Walter Cronkite_ Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf
- Watts College _ Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf
- FW_ Statement of Support Request - MS in Artificial Intelligence Concentrations - CHS Statement of Support.pdf
- FW_ Statement of Support Request - MS in Artificial Intelligence Concentrations - Edson Statement of Support.pdf
- FW_ Statement of Support Request - MS in Artificial Intelligence Concentrations - The College.pdf
- RE_ Statement of Support Request - MS in Artificial Intelligence Concentrations - Thunderbird Statement of Support.pdf
- RE_ Statement of Support Request - MS in Artificial Intelligence Concentrations - CGF Statement of Support.pdf
- Re_ Statement of Support Request - MS in Artificial Intelligence Concentrations (WP Carey).pdf

Related Programs Offered at ASU

Identify other related ASU programs and describe how the new concentration will complement these existing ASU programs. If this is an interdisciplinary concentration, please describe the interdisciplinary nature of the program further. As applicable, Statements of Collaboration and Impact should be included from affected academic unit administrators and college and school deans.

Course Development

Will a new course subject be required for this program?

No

Will new courses be established? ?

No

Graduate Degree Curriculum

Allow 400-level courses? ⓘ

No

Curriculum Requirement Option 1 ⓘ

30 credit hours including a portfolio

Curriculum Requirement Option 2

30 credit hours including a thesis

Minimum Credits Required for the Program ⓘ

30

Add another option?

Yes

Add another option?

No

Curriculum Requirement Option 1

30 credit hours including a portfolio

Min credits required for this option

30

Primary Requirement (Culminating experience)

Portfolio

Additional Requirement(s)

Required number of committee members

1

Curriculum option course requirements

Required Core

3

Total Credits

- Complete 3 credits from the following courses:
 - FSE561 - Artificial Intelligence Ethics and Social Responsibility (3)

AI Engineering

3

Total Credits

Foundations

- Complete 3 credits from the following courses:
 - CSE571 - Artificial Intelligence (3)
 - CSE576 - Topics in Natural Language Processing (3)
 - CSE575 - Statistical Machine Learning (3)
 - EEE515 - Machine Vision and Pattern Recognition (3)
 - AME515 - Machine Vision and Pattern Recognition (3)
 - EEE511 - Artificial Neural Computation (3)
 - EEE560 - Mathematical Foundations of Machine Learning (3)
 - STP550 - Statistical Machine Learning (3)
 - FSE560 - Artificial Intelligence Engineering Foundations (3)
 - RAS585 - Machine Learning and Artificial Intelligence (3)

AI Systems & Tools

3

Total Credits

- Complete 3 credits from the following courses:
 - MFG523 - Artificial Intelligence for Smart Manufacturing (3)
 - MAE551 - Applied Machine Learning for Mechanical Engineers (3)
 - MSE551 - Applied Machine Learning for Mechanical Engineers (3)
 - EEE511 - Artificial Neural Computation (3)
 - EEE549 - Statistical Machine Learning: From Theory to Practice (3)
 - IFT536 - Natural Language Processing for Information Technology (3)
 - ACT561 - Machine Learning and Risk Management Applications (3)
 - AME534 - Machine Learning for Media Arts (3)
 - CEE501 - Artificial Intelligence for Civil Engineers (3)
 - CSE578 - Data Visualization (3)

Data Collection &

Evaluation for AI

3

Total Credits

Systems

- Complete 3 credits from the following courses:
 - EEE554 - Probability and Random Processes (3)
 - IEE520 - Statistical Learning for Data Mining (3)
 - IEE577 - Data Science for System Decision Analytics (3)
 - IFT511 - Analyzing Big Data (3)
 - IFT512 - Advanced Big Data Analytics/AI (3)

- CEE579 - Transportation Data Collection and Analysis Methods (3)
- ACO501 - Database Systems and Cloud Computing (3)
- CHM547 - Data Modeling for the Natural Sciences (3)
- CSE510 - Database Management System Implementation (3)
- CSE511 - Data Processing at Scale (3)
- CSE512 - Distributed Database Systems (3)
- CSE515 - Multimedia and Web Databases (3)
- DSE501 - Statistics for Data Analysts (3)
- GIS531 - Spatial Databases (3)
- HSE531 - Data Analytics: Modeling Human Subjects Data (3)
- CSE572 - Data Mining (3)

Concentration

12

Total Credits

- Complete all of the following
 - Complete 3 credits from the following courses:
 - IEE505 - Information Systems Engr (3)
 - Complete 3 credits from the following courses:
 - IEE545 - Advanced Simulating Stochastic Systems (3)
 - IEE561 - Production Systems (3)
 - Complete 3 credits from the following courses:
 - IEE572 - Design Engineering Experiments (3)
 - IEE573 - Reliability Engineering (3)
 - IEE578 - Regression Analysis (3)
 - Complete 3 credits from the following courses:
 - IEE574 - Appl Deterministic Oper Rsch (3)
 - IEE575 - Appl Stochastic Oper Rsch Mdls (3)

Electives

6

Total Credits

- Complete 6 credits from the following course sets:
 - ▼ iPOS open courses (500 level)
 - ▼ iPOS open courses (600 level)

Grand Total Credits: 30

Additional Curriculum Information

Any additional core classes taken will be treated as electives. No class can be taken to satisfy both a core requirement and a concentration requirement. Other available electives are listed in the attached file, and additional electives will be decided by the Graduate Program Committee.

Curriculum Requirement Option 2

Min credits required for this option

30 credit hours including a thesis

30

Primary Requirement (Culminating experience)

Thesis

Additional Requirement(s)

Required number of committee members

3

Curriculum option course requirements

Required Core

3

Total Credits

- Complete 3 credits from the following courses:
 - FSE561 - Artificial Intelligence Ethics and Social Responsibility (3)

AI Engineering

3

Total Credits

Foundations

- Complete 3 credits from the following courses:
 - CSE571 - Artificial Intelligence (3)
 - CSE576 - Topics in Natural Language Processing (3)
 - CSE575 - Statistical Machine Learning (3)
 - EEE515 - Machine Vision and Pattern Recognition (3)
 - AME515 - Machine Vision and Pattern Recognition (3)
 - EEE511 - Artificial Neural Computation (3)
 - EEE560 - Mathematical Foundations of Machine Learning (3)
 - STP550 - Statistical Machine Learning (3)
 - FSE560 - Artificial Intelligence Engineering Foundations (3)
 - RAS585 - Machine Learning and Artificial Intelligence (3)

AI Systems & Tools

3

Total Credits

- Complete 3 credits from the following courses:
 - MFG523 - Artificial Intelligence for Smart Manufacturing (3)
 - MAE551 - Applied Machine Learning for Mechanical Engineers (3)
 - MSE551 - Applied Machine Learning for Mechanical Engineers (3)
 - EEE511 - Artificial Neural Computation (3)
 - EEE549 - Statistical Machine Learning: From Theory to Practice (3)
 - IFT536 - Natural Language Processing for Information Technology (3)
 - ACT561 - Machine Learning and Risk Management Applications (3)
 - AME534 - Machine Learning for Media Arts (3)
 - CEE501 - Artificial Intelligence for Civil Engineers (3)
 - CSE578 - Data Visualization (3)

Data Collection &

Evaluation for AI

3

Total Credits

Systems

- Complete 3 credits from the following courses:
 - EEE554 - Probability and Random Processes (3)
 - IEE520 - Statistical Learning for Data Mining (3)
 - IEE577 - Data Science for System Decision Analytics (3)
 - IFT511 - Analyzing Big Data (3)
 - IFT512 - Advanced Big Data Analytics/AI (3)

- o CEE579 - Transportation Data Collection and Analysis Methods (3)
- o ACO501 - Database Systems and Cloud Computing (3)
- o CHM547 - Data Modeling for the Natural Sciences (3)
- o CSE510 - Database Management System Implementation (3)
- o CSE511 - Data Processing at Scale (3)
- o CSE512 - Distributed Database Systems (3)
- o CSE515 - Multimedia and Web Databases (3)
- o CSE572 - Data Mining (3)
- o DSE501 - Statistics for Data Analysts (3)
- o GIS531 - Spatial Databases (3)
- o HSE531 - Data Analytics: Modeling Human Subjects Data (3)

Concentration

12

Total Credits

- Complete all of the following
 - o Complete 3 credits from the following courses:
 - IEE505 - Information Systems Engr (3)
 - o Complete 3 credits from the following courses:
 - IEE545 - Advanced Simulating Stochastic Systems (3)
 - IEE561 - Production Systems (3)
 - o Complete 3 credits from the following courses:
 - IEE572 - Design Engineering Experiments (3)
 - IEE573 - Reliability Engineering (3)
 - IEE578 - Regression Analysis (3)
 - o Complete 3 credits from the following courses:
 - IEE574 - Appl Deterministic Oper Rsch (3)
 - IEE575 - Appl Stochastic Oper Rsch Mdls (3)

Culminating Experience

6

Total Credits

- Complete 6 credits from the following courses:
 - o IEE599 - Thesis (1 - 12)

Grand Total Credits: 30

Additional Curriculum Information

Any additional core classes taken will be treated as electives. No class can be taken to satisfy both a core requirement and a concentration requirement. Other available electives are listed in the attached file, and additional electives will be decided by the Graduate Program Committee.

Projected Enrollment

Enrollment Headcounts

Number of Students Majoring

1st Year

25

	Number of Students Majoring
2nd Year (Yr 1 continuing + new entering)	50
3rd Year (Yr 1 & 2 continuing + new entering)	75
4th Year (Yrs 1, 2, 3 continuing + new entering)	75
5th Year (Yrs 1, 2, 3, 4 continuing + new entering)	75

Additional Enrollment Information

Estimated Timeframe to Complete Program

What is the minimum timeframe that this program can be completed?

1-2 years

If necessary, please provide additional information.

Resources (Faculty, Staff and Others)

Current Faculty ⓘ

Name	Title	Highest Degree Obtained	Area of Specialization or Expertise	Estimated Level of Involvement
Baoxin Li	Associate Director and Professor	PhD	Visual computing and machine learning	High
Hani Ben Amor	Associate Professor	PhD	AI, machine learning, human-robot interaction, robot vision	Medium
Dimitri Bertsekas	Professor	PhD	Reinforcement learning, AI, optimization, linear and nonlinear programming	Medium
Feng Ju	Associate Professor	PhD	Stochastic modeling and optimization of production systems, Machine learning and real-time control of Additive Manufacturing	High
Jaron Mink	Assistant Professor	PhD	Intersection of usable security, machine learning, and system security	Low

Name	Title	Highest Degree Obtained	Area of Specialization or Expertise	Estimated Level of Involvement
Rong Pan	Professor	PhD	Quality and reliability engineering, design of experiments, time series analysis, and statistical learning theory	Medium
Giulia Pedrielli	Associate Professor	PhD	Simulation optimization, blackbox optimization, at the intersection between machine learning and optimization	Medium
George Runger	Professor	PhD	Machine learning for large, complex data, and real-time analysis	Medium
Minseok Ryu	Assistant Professor	PhD	Operations research and machine learning	Low
Bing Si	Associate Professor	PhD	Machine learning, statistical modeling, healthcare data science, and systems informatics	Medium
Teresa Wu	President's Professor	PhD	Health informatics, distributed decision support	Low
Hao Yan	Associate Professor	PhD	Machine learning, data analytics for images, profiles and time series data for change detection and localization, and spatial-temporal analysis	Medium

New Faculty

The FSE Dean's Office will provide additional lecturers to teach FSE 560 AI Engineering Foundations and FSE 561 AI Ethics & Social Responsibility.

Is your college in the process of reviewing the new faculty? Or has new faculty already been approved?

No

Administration of the Program

The proposed MS in AI Engineering (Operations and Decision Science) will be housed administratively within the School of Computing and Augmented Intelligence (SCAI) of the Fulton Schools of Engineering (FSE), while other concentrations will be housed within other Schools. The concentrations will collaborate through the core classes required of all students in the program. Any changes in the curriculum will be made through a Graduate Program Committee comprised of two faculty from each of the participating Schools, and led by a Graduate Program Chair appointed by the FSE Dean. The Graduate Program Committee will define

admissions criteria and make admissions decisions, and make curriculum changes as needed. Academic advising and admissions for the Intelligent Biomedical Systems Engineering concentration will be addressed by the SCAI advising center.

Required Resources

The FSE Dean's Office will provide additional lecturers to teach FSE 560 AI Engineering Foundations and FSE 561 AI Ethics & Social Responsibility.

Resource Acquisition

Internal communications within the FSE Dean's Office indicates resources will be provided to teach the FSE 560 and FSE 561 classes.

Graduate Program Admission Requirements

The below sections are for initial admission criteria setup for new programs. Once the program is approved, this section will display the admission text as it appears in the academic catalog/degree search.

Applicants must fulfill the requirement of both the Graduate College and the **[name of college]**. Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in **[subject area]** or related field, from a regionally accredited institution. Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of a student's first bachelor's degree program, or applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

Name of College ⓘ

Ira A. Fulton Schools of Engineering (CES)

Subject Area(s) ⓘ

Computing, Engineering, Mathematics, Statistics, Operations
Research, Information Technology

Is the minimum required cumulative GPA in the last 60 hours of bachelor's degree higher than the standard minimum of 3.00?

No

Is the minimum required cumulative GPA in an applicable master's degree program higher than the standard minimum of 3.00?

No

Applicants are required to submit:

- graduate admissions application and application fee
- official transcripts
- proof of English proficiency

Select additional requirements:

professional resume

Additional Application Requirements/Materials

An applicant whose native language is not English must provide proof of English proficiency regardless of current residency. If applicable, list any English proficiency requirements that are supplementary to the Graduate College requirement. ⓘ

An applicant whose native language is not English must demonstrate proficiency in the English language by scoring at least 90 on the Internet-based TOEFL (iBT) or 7 on the IELTS, and 115 on the duolingo.

If any required components require further explanation, explain here.

Additional Admission Information:

Familiarity with Matlab, Python, SQL, R, or other relevant programming skills (in the professional resume)

Graduate Application Information

Indicate the first term and year in which applications will be opened for admission. Applications will be accepted on a rolling basis after that time. The regular session is only available for summer.

Note: It is the academic unit's responsibility to display program deadline dates on their website.

Campus or Location	Term	Session
Tempe	Fall	Regular
Tempe	Spring	Regular

Application Deadlines ⓘ

Modality	Term	Session	Deadline	Type
In-Person	Fall	Session A/C	2025/12/01	Priority
In-Person	Spring	Session A/C	2026/08/01	Priority

Program Admission Deadline Website Address

<https://scai.engineering.asu.edu/graduate/>

Fees

Is a program fee required? ⓘ

No

Degree Search and Operational Information

Marketing Description ⓘ

Learn the advanced skills needed to apply artificial intelligence (AI) and machine learning (ML) in industrial engineering, with an emphasis on operations research and decision science. Take high-demand core courses, disciplinary electives, and select a culminating experience that fits your needs to graduate in one to two years.

Degree Search Program Description ⓘ

The Master of Science program in artificial intelligence engineering with a concentration in operations and decision science combines advanced study in AI approaches with deep domain expertise in industrial engineering.

The use of AI approaches, including machine learning, natural language processing, computer vision, robotics and pattern recognition, is becoming widespread in many fields, including all engineering disciplines. Yet, the majority of engineering occupations require subject matter expertise beyond AI.

Students learn how to develop and customize relevant AI approaches to industrial engineering problems. Emerging AI applications in industrial engineering include the identification of bottlenecks and inefficiencies in production, better approaches for managing inventories, improving the capabilities of production workers and engineers, etc. A core curriculum in AI engineering foundations, AI systems and tools, AI ethics and social responsibility, and data collection and evaluation for AI systems is complemented by industrial engineering-specific courses to ensure breadth and depth in AI and in industrial engineering.

Provide a brief description of career opportunities available for this program. ?

Industrial engineers with a background in AI can pursue opportunities in a variety of fields to develop, customize and apply AI systems and tools while taking ethical and societal considerations into account. These skills can be applied to industries including:

- advanced predictive maintenance
- factory automation
- healthcare systems
- supply chain optimization

Global Experience: Provide a brief description of global opportunities or experiences (study abroad, international internships) available for this program.

N/A

ONET/SOC Codes: Career Options ?

15-1221.00 Computer Scientist15-2051.00 Data Scientist17-2199.08 Robotics Engineer17-2112.00 Industrial Engineer

Professional Licensure

N/A

Additional Professional Licensure Information

N/A

Degree Search Contact Information and Support

Building Code

Centerpoint (CTRPT)

Room Number

105

Program Email Address ?

scai.grad.admission@asu.edu

Program Office Telephone Number ?

480-965-3199

Program Website Address

<https://scai.engineering.asu.edu/graduate/>

Keywords ?

Artificial IntelligenceEngineeringMachine LearningNatural Language ProcessingethicsRoboticsIndustrial Engineer
Operations Research

List New Keywords

Computer Vision, Pattern Recognition

Select one (1) primary area of interest from the list below that applies to this program

Engineering & Technology

Select one (1) secondary area of interest from the list below that applies to this program

Computing & Mathematics

Program Assessment

Attach a PDF copy of the assessment plan printed from the University Office of Evaluation and Educational Effectiveness assessment portal demonstrating UOEEE's approval of your assessment plan for this program. 

- MS1721671109_UOEEE_received (2).pdf

Supporting Documents

Additional Supporting Documentation (Impact statements should be above under Collaboration and Impact)

- MS AI Engineering Approved Electives.pdf

Please describe the attached files and their relevance to the proposal.

Dependencies

Dependencies

There are no dependencies

From: [Sergio Quiros](#)
To: [Amanda Morales-Calderon](#); [Kayla Durazo](#); [Sophia McGovern](#)
Cc: [Patrick Phelan \(Professor\)](#)
Subject: FW: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Tuesday, March 4, 2025 1:48:59 PM
Attachments: [image.png](#)
[Health Solutions Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf](#)

Hello,

Please add the attached statement of support to the [MS in Artificial Intelligence Engineering](#) concentration proposals:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
- [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
- [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)
- [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Best,

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Kate Brown <KateBrown@asu.edu>
Sent: Tuesday, March 4, 2025 1:01 PM
To: James Collofello <JAMES.COLLOFELLO@asu.edu>; Sergio Quiros <Sergio.Quiros@asu.edu>
Cc: Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Julie Liss <JULIE.LISS@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Kayla Durazo <kydurazo@asu.edu>; Sophia McGovern <somcgove@asu.edu>; Stavros Kavouras <Stavros.Kavouras@asu.edu>; Visar Berisha <visar@asu.edu>
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of Julie Liss

Dear James,

Thank you for the opportunity to review these proposed concentrations within the Master of Science in Artificial Intelligence Engineering.

After reviewing the proposals, we see no overlap or concerns in relation to our Biomedical Informatics (BMI) and Biomedical Diagnostics (BMD) programs. While our AI-related courses focus on biomedical applications, the proposed AI Engineering concentrations do not significantly intersect with our curriculum.

Regarding potential synergies, students in certain concentrations—such as Robotics, Human-Centered Artificial Intelligence, and Aerospace Engineering—may benefit from **BMI/CEN 598: Embedded Machine Learning**, a cross-listed course that has already attracted students in the Robotics, MS.

Furthermore, we suggest integrating courses from our college that touch on AI, such as:

- [BMI 507/CSE 507: Image Processing and Analysis](#) (includes AI approaches)
- [BMD 562: Bioethical Issues in Applied Biomedicine](#) (tangential but potentially relevant)
- [BMD 667: Regulation of Medical Diagnostics](#) (includes a module on software as a medical device and clinical decision support software)

Overall, I support the development of these AI Engineering concentrations and look forward to potential future collaborations as AI continues to advance in various disciplines.

Kind regards,

Julie

Julie Liss, PhD CCC-SLP

Senior Associate Dean of Academic Success

Professor of Speech and Hearing Science

Senior Editor of Registered Reports, *Journal of Speech, Language, and Hearing Research*

Fellow, American Speech-Language-Hearing Association

Arizona State University | College of Health Solutions

550 N. 3rd Street, Phoenix, AZ 85004 | Health North|

For assistance or to request a meeting, please email Bernadette.Elliott@asu.edu

**Note: If you have received this email outside of your working hours, please don't feel obligated to respond before your next workday begins.*

| chs.asu.edu



From: Sergio Quiros <Sergio.Quiros@asu.edu>

Sent: Monday, March 3, 2025 10:03 AM

To: Kate Brown <KateBrown@asu.edu>

Cc: Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Julie Liss <JULIE.LISS@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Kayla Durazo <kydurazo@asu.edu>; Sophia McGovern <somcgove@asu.edu>; James Collofello <JAMES.COLLOFELLO@asu.edu>

Subject: RE: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hello,

I hope this email finds you well. Graduate College asked that we follow up regarding the request for an impact/support letter for the proposed [MS in Artificial Intelligence Engineering](#) concentrations (listed below). They have requested a response from your academic unit before March 5, 2025.

Thank you once again for considering this request. We truly appreciate your time and support.

Best,

Sergio Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Kate Brown <KateBrown@asu.edu>

Sent: Tuesday, February 11, 2025 10:58 AM

To: Sergio Quiros <Sergio.Quiros@asu.edu>; James Collofello <JAMES.COLLOFELLO@asu.edu>

Cc: Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Julie Liss <JULIE.LISS@asu.edu>

Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Good morning and thank you for reaching out. We will facilitate the review of these proposals with our faculty and respond with our feedback shortly.

Kind regards,
Kate

Kate Brown, MEd (she/her/hers)
Sr. Director, Academic Success and Innovation

Arizona State University | College of Health Solutions
550 N. 3rd Street, Phoenix, AZ 85004 | Health North Room 514
O:480-727-4672 | katebrown@asu.edu | chs.asu.edu



I live and work in the ancestral homelands of the Akimel O'odham (Pima) and Pee Posh (Maricopa) peoples and benefit from their ongoing stewardship and place-based knowledge.

I understand our working hours may differ, so please do not feel obligated to respond outside of your normal working schedule.

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Sent: Thursday, February 6, 2025 11:40 AM
To: Julie Liss <JULIE.LISS@asu.edu>; Kate Brown <KateBrown@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>
Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed [MS in Artificial Intelligence Engineering](#) concentrations:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
- [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
- [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)
- [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Sergio Quiros](#)
To: [Amanda Morales-Calderon](#); [Sophia McGovern](#); [Kayla Durazo](#)
Cc: [Patrick Phelan \(Professor\)](#)
Subject: FW: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Monday, March 3, 2025 11:37:32 AM
Attachments: [image001.png](#)
[Nursing Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf](#)

Hello,

Please add the attached statement of support the [MS in Artificial Intelligence Engineering](#) concentration proposals:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
- [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
- [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)
- [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Best,

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Katherine Kenny <Katherine.Kenny@asu.edu>
Sent: Monday, March 3, 2025 11:34 AM
To: Sergio Quiros <Sergio.Quiros@asu.edu>; Daniel Eckstrom <Daniel.Eckstrom@asu.edu>; Nancy Kiernan <nkiernan@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Sophia McGovern <somcgo@asu.edu>; Kayla Durazo <kydurazo@asu.edu>
Subject: RE: Statement of Support Request - MS in Artificial Intelligence Concentrations

Dear Sergio,

Thank you for asking Edson College to review and comment on your proposal for MS in Artificial Intelligence Concentrations. The concentrations in engineering do not duplicate or compete with our courses or degree programs at Edson College; they are well-thought out and comprehensive. Some

of the courses may be of interest to some of our Edson College graduate students if they are available as electives. We support your proposal and wish you success as you continue through the approval processes.

Kathy

Katherine (Kathy) Kenny, DNP, RN, ANP-BC, FAANP, FAAN
Associate Dean of the Academic Enterprise
Clinical Professor

ASU Edson College of
Nursing and Health Innovation

Arizona State University

500 North 3rd Street | Phoenix, AZ 85004

Ph: 602.496.1719 | katherine.kenny@asu.edu

<https://nursingandhealth.asu.edu>

From: Sergio Quiros <Sergio.Quiros@asu.edu>

Sent: Monday, March 3, 2025 10:08 AM

To: Katherine Kenny <Katherine.Kenny@asu.edu>; Daniel Eckstrom <Daniel.Eckstrom@asu.edu>;
Nancy Kiernan <nkiernan@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>;
Patrick Phelan (Professor) <phelan@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Sophia McGovern <somcgove@asu.edu>; Kayla Durazo <kydurazo@asu.edu>

Subject: RE: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hello,

I hope this email finds you well. Graduate College asked that we follow up regarding the request for an impact/support letter for the proposed [MS in Artificial Intelligence Engineering](#) concentrations (listed below). They have requested a response from your academic unit before March 5, 2025.

Thank you once again for considering this request. We truly appreciate your time and support.

Best,

Sergio G. Quiros

Assistant Director of Academic Administration

Ira A. Fulton Schools of Engineering

Arizona State University

Tempe, AZ 85287-8109

Phone: 480/727-5770

Email: Sergio.Quiros@asu.edu

From: Sergio Quiros

Sent: Thursday, February 6, 2025 11:40 AM

To: Katherine Kenny <Katherine.Kenny@asu.edu>; Daniel Eckstrom <Daniel.Eckstrom@asu.edu>;
Nancy Kiernan <nkiernan@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>;

Patrick Phelan (Professor) <phelan@asu.edu>

Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed MS in Artificial Intelligence Engineering concentrations:

- MS in Artificial Intelligence Engineering (Aerospace Engineering)
- MS in Artificial Intelligence Engineering (Chemical Engineering)
- MS in Artificial Intelligence Engineering (Computing Sciences)
- MS in Artificial Intelligence Engineering (Electrical Engineering)
- MS in Artificial Intelligence Engineering (Human-Centered Artificial Intelligence)
- MS in Artificial Intelligence Engineering (Materials Science and Engineering)
- MS in Artificial Intelligence Engineering (Manufacturing)
- MS in Artificial Intelligence Engineering (Mechanical Engineering)
- MS in Artificial Intelligence Engineering (Robotics)
- MS in Artificial Intelligence Engineering (Software Engineering)
- MS in Artificial Intelligence Engineering (Operations and Decision Science)

Let me know if you have any questions or concerns.

jim

James S. Collofello

Vice Dean for Academic and Student Affairs

Professor of Computer Science and Engineering

School of Computing and Augmented Intelligence

Ira A. Fulton Schools of Engineering

Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration

Ira A. Fulton Schools of Engineering

Arizona State University

Tempe, AZ 85287-8109

Phone: 480/727-5770

Email: Sergio.Quiros@asu.edu

From: [Sergio Quiros](#)
To: [Amanda Morales-Calderon](#); [Sophia MCGovern](#); [Kayla Durazo](#)
Cc: [Patrick Phelan \(Professor\)](#)
Subject: FW: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Thursday, March 6, 2025 2:47:59 PM
Attachments: [CLAS Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf](#)

Hello,

Please add the attached statement of support from The College of Liberal Arts and Sciences to the MS in Artificial Intelligence Engineering proposal and concentrations:

- MS in Artificial Intelligence Engineering (Aerospace Engineering)
- MS in Artificial Intelligence Engineering (Chemical Engineering)
- MS in Artificial Intelligence Engineering (Computing Sciences)
- MS in Artificial Intelligence Engineering (Electrical Engineering)
- MS in Artificial Intelligence Engineering (Human-Centered Artificial Intelligence)
- MS in Artificial Intelligence Engineering (Materials Science and Engineering)
- MS in Artificial Intelligence Engineering (Manufacturing)
- MS in Artificial Intelligence Engineering (Mechanical Engineering)
- MS in Artificial Intelligence Engineering (Robotics)
- MS in Artificial Intelligence Engineering (Software Engineering)
- MS in Artificial Intelligence Engineering (Operations and Decision Science)

Sergio Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Bradley Ryner <Bradley.Ryner@asu.edu>
Sent: Thursday, March 6, 2025 2:07 PM
To: Sergio Quiros <Sergio.Quiros@asu.edu>
Cc: Kenro Kusumi <Kenro.Kusumi@asu.edu>; Jeffrey Cohen (Dean) <Jeffrey.J.Cohen@asu.edu>; Magda Hinojosa <Magda.Hinojosa@asu.edu>; Ferran Garcia-Pichel <ferran@asu.edu>; Kyle Rader <kwrader@asu.edu>; Brian Bottini <Brian.Bottini@asu.edu>; James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Sophia MCGovern <somcgo@asu.edu>; Kayla Durazo <kydurazo@asu.edu>
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Dear Sergio,

The College of Liberal Arts and Sciences has reviewed your proposal to launch a new MS in Artificial Intelligence Engineering, with 11 different concentrations. We foresee no significant impact on graduate programs in The College and support this program.

This degree has some overlap with the School of Life Sciences' MS in Computational Life Sciences. Both degrees are aimed at students at the interface between computational methods and applications to other disciplines. Both offer training in modern methods of data analysis. However, the proposed degree is largely focused on engineering and applications outside of life sciences. The computational focus is also quite different, with a heavy emphasis on machine learning and robotics. Nonetheless, there is some possibility for some of the courses in the respective degrees to be of interest to students in the other program, particularly in the areas of probability, statistics, and data processing.

We appreciate that the proposal allows courses in the School of Mathematical and Statistical Sciences (STP 550 Statistical Machine Learning and ACT 561 Machine Learning and Risk Management) and Geographical Studies and Urban Planning (GIS 531 Spatial Databases) to count as requirement options. Additionally, we encourage you to consider counting CHM 547 Data Modeling for the Natural Sciences from the School of Molecular Sciences as a requirement option.

The College looks forward to this new degree and future collaborations.

Sincerely,

Bradley D. Ryner (he/him)
Associate Dean of Graduate Initiatives
The College of Liberal Arts and Sciences
Associate Professor, Department of English
Arizona State University

From: Sergio Quiros <Sergio.Quiros@asu.edu>

Date: Monday, March 3, 2025 at 9:16 AM

To: Bradley Ryner <Bradley.Ryner@asu.edu>, Kyle Rader <kwrader@asu.edu>, Brian Bottini <Brian.Bottini@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>, Patrick Phelan (Professor) <phelan@asu.edu>, Amanda

Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>, Sophia McGovern <somcgove@asu.edu>, Kayla Durazo <kydurazo@asu.edu>

Subject: RE: Statement of Support Request - MS in Artificial Intelligence Concentrations

Thank you. I am copying the Graduate College on this email so they are aware.

Best,

Sergio Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Bradley Ryner <Bradley.Ryner@asu.edu>

Sent: Monday, March 3, 2025 9:08 AM

To: Sergio Quiros <Sergio.Quiros@asu.edu>; Kyle Rader <kwrader@asu.edu>; Brian Bottini <Brian.Bottini@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <pwhelan@asu.edu>

Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hi, Sergio,

I just wanted to update you that we are waiting for impact assessment from one of our units, but I hope to have a statement for you by the end of the week.

With best,

Brad

Bradley D. Ryner (he/him)
Associate Dean of Graduate Initiatives
The College of Liberal Arts and Sciences
Associate Professor, Department of English
Arizona State University

From: Sergio Quiros <Sergio.Quiros@asu.edu>

Date: Tuesday, February 11, 2025 at 3:56 PM

To: Bradley Ryner <Bradley.Ryner@asu.edu>, Kyle Rader <kwrader@asu.edu>, Brian Bottini <Brian.Bottini@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>, Patrick Phelan (Professor) <phelan@asu.edu>

Subject: RE: Statement of Support Request - MS in Artificial Intelligence Concentrations

Thank you. We look forward to your response.

Best,

Sergio Q. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Bradley Ryner <Bradley.Ryner@asu.edu>

Sent: Tuesday, February 11, 2025 3:53 PM

To: Sergio Quiros <Sergio.Quiros@asu.edu>; Kyle Rader <kwradar@asu.edu>; Brian Bottini <Brian.Bottini@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>

Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Dear Sergio,

Thank you for reaching out. We should be able to have a statement to you in the next couple of weeks.

With best,

Brad

Bradley D. Ryner (he/him)
Associate Dean of Graduate Initiatives
The College of Liberal Arts and Sciences
Associate Professor, Department of English
Arizona State University

From: Sergio Quiros <Sergio.Quiros@asu.edu>

Date: Thursday, February 6, 2025 at 11:40 AM

To: Bradley Ryner <Bradley.Ryner@asu.edu>, Kyle Rader <kwradar@asu.edu>, Brian

Bottini <Brian.Bottini@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm
<JEREMY.HELM@asu.edu>, Patrick Phelan (Professor) <phelan@asu.edu>

Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed MS in Artificial Intelligence Engineering concentrations:

- MS in Artificial Intelligence Engineering (Aerospace Engineering)
- MS in Artificial Intelligence Engineering (Chemical Engineering)
- MS in Artificial Intelligence Engineering (Computing Sciences)
- MS in Artificial Intelligence Engineering (Electrical Engineering)
- MS in Artificial Intelligence Engineering (Human-Centered Artificial Intelligence)
- MS in Artificial Intelligence Engineering (Materials Science and Engineering)
- MS in Artificial Intelligence Engineering (Manufacturing)
- MS in Artificial Intelligence Engineering (Mechanical Engineering)
- MS in Artificial Intelligence Engineering (Robotics)
- MS in Artificial Intelligence Engineering (Software Engineering)
- MS in Artificial Intelligence Engineering (Operations and Decision Science)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Stephani Etheridge Woodson](#)
To: [Sergio Quiros](#); [Amanda Osman](#); [Renee Cheng](#)
Cc: [James Collofello](#); [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#); [Pavan Turaga](#)
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Thursday, February 6, 2025 1:45:14 PM

Thank you for the opportunity to review your proposed concentrations for your MS in Artificial Intelligence. We were excited to see you have included AME 534 Machine Learning for Media Arts. Director Turaga also suggests that you can include other options from Arts Media and Engineering including:

AME 598 AI for Social Good
AME 598 Minds and Machines
AME 598 Human-AI Interaction

AME will be requesting permanent numbers for these electives soon and we think your students will be interested.

The Herberger Institute supports your new concentrations and appreciates FSE's commitment to 21st century learning.

with appreciation, Stephani

Stephani Etheridge Woodson
Senior Associate Dean of [Students and Academic Programs](#)
Herberger Institute for Design and the Arts
Director, [Design and Arts Corps](#)
[Student Resources](#)

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Date: Thursday, February 6, 2025 at 11:40 AM
To: Stephani Etheridge Woodson <swoodson@asu.edu>, Amanda Osman <Amanda.Osman@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>, Patrick Phelan (Professor) <phelan@asu.edu>
Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed [MS in Artificial Intelligence Engineering](#) concentrations:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
- [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
- [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)
- [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
 Vice Dean for Academic and Student Affairs
 Professor of Computer Science and Engineering
 School of Computing and Augmented Intelligence
 Ira A. Fulton Schools of Engineering
 Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
 Ira A. Fulton Schools of Engineering
 Arizona State University
 Tempe, AZ 85287-8109
 Phone: 480/727-5770
 Email: Sergio.Quiros@asu.edu

From: [Tamara Herrera](#)
To: [Sergio Quiros](#); [Lydia Montelongo](#)
Cc: [James Collofello](#); [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#); [Stacy Leeds](#)
Subject: RE: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Monday, February 10, 2025 4:37:53 PM

Dear Vice Dean Collofello,

The College of Law has reviewed the proposed new MS degree concentrations below and supports this proposal. This proposal does not impact any work in our unit (no duplication of efforts or negative effects).

Please let me know if you need anything additional. I am happy to help.

Tamara

Tamara Herrera [Hear My Name](#)

Associate Dean of Academic Affairs
Distinguished Endowed Professor in Legal Method & Clinical Professor of Law
Sandra Day O'Connor College of Law
Arizona State University

111 E. Taylor Street
Phoenix, AZ 85004
p: 480-727-7194
email: tamara.herrera@asu.edu
web: law.asu.edu

ASU Law acknowledges that the law school is located on the ancestral lands of the Akimel O'odham and further acknowledges that Arizona is home to 22 Tribal Nations that comprise 27% of Arizona's total land base.

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Sent: Thursday, February 6, 2025 11:40 AM
To: Tamara Herrera <Tamara.Herrera@asu.edu>; Lydia Montelongo <lydia.montelongo@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>
Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed [MS in Artificial Intelligence Engineering](#) concentrations:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)

- [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
- [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)
- [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio Z. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Sergio Quiros](#)
To: [Stephen Toth](#); [Tosha Ruggles](#)
Cc: [James Collofello](#); [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#)
Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Thursday, February 6, 2025 11:40:00 AM

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed MS in Artificial Intelligence Engineering concentrations:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
- [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
- [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)
- [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Sergio Quiros](#)
To: [Sharon Hall](#)
Cc: [Miki Kittilson](#); [Lisa Murphy](#); [Althea Pergakis](#); [James Collofello](#); [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#); [Amanda Morales-Calderon](#); [Sophia McGovern](#); [Kayla Durazo](#)
Subject: RE: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Monday, April 7, 2025 3:24:26 PM

Thank you very much.

Sophia/Amanda – let me know if you have need anything else.

Best,

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Sharon Hall <sharonjhall@asu.edu>
Sent: Monday, April 7, 2025 3:22 PM
To: Sergio Quiros <Sergio.Quiros@asu.edu>
Cc: Miki Kittilson <Miki.Kittilson@asu.edu>; Lisa Murphy <Lisa.M.Murphy@asu.edu>; Althea Pergakis <Althea.Pergakis@asu.edu>; James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Sophia McGovern <somcgoe@asu.edu>; Kayla Durazo <kydurazo@asu.edu>
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hi Sergio, see below.

Sharon

From: Kyle Squires <squires@asu.edu>
Date: March 18, 2025 at 2:31:14 PM MST
To: Miki Kittilson <Miki.Kittilson@asu.edu>
Cc: Lisa Murphy <Lisa.M.Murphy@asu.edu>, Althea Pergakis <Althea.Pergakis@asu.edu>, James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>, Kayla Durazo <kydurazo@asu.edu>, Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>, Shawn Jordan <Shawn.S.Jordan@asu.edu>, "Patrick Phelan (Professor)" <phelan@asu.edu>, Sharon Hall <sharonjhall@asu.edu>, Sergio Quiros <Sergio.Quiros@asu.edu>
Subject: MS in Global Engineering (pending name change to Innovation

Engineering)

Miki,

Thank you very much for the follow up. Agreed there is a lot of common ground here. We will stay engaged and look forward to the coming discussions.

Kyle

From: Miki Kittilson <Miki.Kittilson@asu.edu>

Sent: Sunday, March 16, 2025 5:43 PM

To: Kyle Squires <squires@asu.edu>

Cc: Lisa Murphy <Lisa.M.Murphy@asu.edu>; Althea Pergakis <Althea.Pergakis@asu.edu>; James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Kayla Durazo <kydurazo@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Shawn Jordan <Shawn.S.Jordan@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Sharon Hall <sharonjhall@asu.edu>; Sergio Quiros <Sergio.Quiros@asu.edu>

Subject: RE: MS in Global Engineering (pending name change to Innovation Engineering)

Dear Kyle,

It was fantastic to talk with you about the new programs in FSE. The College of Global Futures is excited to learn about the new MS degree in Global/Innovation Engineering, and the new MS concentrations in AI Engineering. We would like to collaborate on these degrees in short-term and longer-term ways – and we welcome future conversations to discuss.

As example of deeper collaborations:

- Related to the AI Engineering (Operations and Decision Science) concentration and other FSE Data Science degrees. We are excited about developing joint training in complexity data science for both engineering and complexity students with topics ranging across the most pressing issues of our time such as health, community resilience, global change. In the past we've received enthusiastic response from FSE colleagues, and we think timing is right for next steps between our colleges.
- The School for the Future of Innovation in Society is planning new BS and MS degrees in Innovation with nimble, quickly-launched tracks in emerging topics. A Global Futures-Engineering collaboration on one or more of these tracks would be a great way to expand partnerships between our colleges, with immense benefits for ASU students.

In the immediate short-term, we would like to offer some of CGF's courses as electives.

- AI Engineering:
 - Required core, 3 credits from an “AI Ethics and Social Responsibility” category. Currently in the FSE proposal, there is one course offering in this category. We would like to offer **HSD 598: AI & Society: Ethics & Impact** as an additional for advisors to promote, recognizing that the omnibus number prevents it from appearing formally on the formal curriculum map.
 - For the AI Engineering (Operations & Decision Science) concentration: Several graduate courses (with both in-person and online availability) that may be helpful for students in this program.
 - **CAS 520 Methods for Complex Systems Science: Agent Based Modeling**
 - **CAS 521 Methods for Complex Systems Science: Network Analysis**
 - **CAS 522 Methods for Complex Systems Science: Dynamical Systems**
 - **CAS 523 Methods for Complex Systems Science: Statistics and Dimensionality Reduction**
- MS Global/Innovation Engineering. The School for the Future of Innovation in Society has a strong MS Global Technology and Development program (online and campus), and we welcome Engineering students who are aiming to work in a global context. Some of the most relevant courses for MS Global/Innovation Engineers are:
 - **GTD 504 Development in Zones of Conflict**
 - **GTD 503 Technology and the International Political System**
 - **GTD 511 Development Policy and Practices**
 - **GTD 501 Global Technology and Development**
 - **GTD 508 Technology and Development in Latin America**

Thank you for the collaboration opportunity,

Sincerely,

Miki Kittilson

Dean, College of Global Futures

On Apr 7, 2025, at 3:13 PM, Sergio Quiros <Sergio.Quiros@asu.edu> wrote:

Hello,

Graduate College asked that we follow up regarding the request for an impact/support letter for the proposed [MS in Artificial Intelligence Engineering](#) concentrations (listed below).

Please let us know if you have any questions.

Best,

Sergio Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Sharon Hall <sharonjhall@asu.edu>

Sent: Monday, March 3, 2025 10:12 AM

To: Sergio Quiros <Sergio.Quiros@asu.edu>; Miki Kittilson <Miki.Kittilson@asu.edu>

Cc: Lisa Murphy <Lisa.M.Murphy@asu.edu>; Althea Pergakis <Althea.Pergakis@asu.edu>; James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Sophia McGovern <somcgo@asu.edu>; Kayla Durazo <kydurazo@asu.edu>

Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hi Sergio and Jim, I understand that Dean Kittilson is discussing this MS AI Engineering and the MS Innovation Engineering degree w FSE. I will loop back as soon as we are able.

Sharon

On Mar 3, 2025, at 10:01 AM, Sergio Quiros

<Sergio.Quiros@asu.edu> wrote:

Hello,

I hope this email finds you well. Graduate College asked that we follow up regarding the request for an impact/support letter for the proposed [MS in Artificial Intelligence Engineering](#) concentrations (listed below). They have requested a response from your academic unit before March 5, 2025.

Thank you once again for considering this request. We truly appreciate your time and support.

Best,

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Sergio Quiros

Sent: Thursday, February 6, 2025 11:40 AM

To: Sharon Hall <sharonjhall@asu.edu>; Lisa Murphy <Lisa.M.Murphy@asu.edu>;
Althea Pergakis <Althea.Pergakis@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm
<JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>

Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed [MS in Artificial Intelligence Engineering](#) concentrations:

1. [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
2. [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
3. [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
4. [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
5. [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
6. [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)
7. [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)

8. [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
9. [MS in Artificial Intelligence Engineering \(Robotics\)](#)
10. [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
11. [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Sergio Quiros](#)
To: [Amanda Morales-Calderon](#); [Kayla Durazo](#); [Sophia Mcgovern](#)
Cc: [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#)
Subject: RE: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Friday, February 28, 2025 11:28:12 AM
Attachments: [Thunderbird Statement of Support Request - MS in Artificial Intelligence Concentrations .pdf](#)

Hello,

Please add the attached statement of support from the Thunderbird School of Global Management to the Quali proposals for the following:

MS in Artificial Intelligence Engineering

1. MS in Artificial Intelligence Engineering (Aerospace Engineering)
2. MS in Artificial Intelligence Engineering (Chemical Engineering)
3. MS in Artificial Intelligence Engineering (Computing Sciences)
4. MS in Artificial Intelligence Engineering (Electrical Engineering)
5. MS in Artificial Intelligence Engineering (Human-Centered Artificial Intelligence)
6. MS in Artificial Intelligence Engineering (Materials Science and Engineering)
7. MS in Artificial Intelligence Engineering (Manufacturing)
8. MS in Artificial Intelligence Engineering (Mechanical Engineering)
9. MS in Artificial Intelligence Engineering (Robotics)
10. MS in Artificial Intelligence Engineering (Software Engineering)
11. MS in Artificial Intelligence Engineering (Operations and Decision Science)

Best,

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Charla Griffy-Brown <charla.griffybrown@thunderbird.asu.edu>
Sent: Friday, February 28, 2025 11:21 AM
To: Sergio Quiros <Sergio.Quiros@asu.edu>
Cc: Lena Booth <Lena.Booth@thunderbird.asu.edu>; Josh Allen <Joshallen@thunderbird.asu.edu>; James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>; Amanda Morales-Calderon <AMANDA.MORALES-CALDERON@asu.edu>; Kayla Durazo <kydurazo@asu.edu>; Sophia Mcgovern <somcgoe@asu.edu>
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hi Sergio,

We are excited to support this and would love to map our MGM with some of these to offer

concurrent degree options for students (an MS in Artificial Intelligence Engineering and a Masters of Global Management for example). Lena can help map to see what is possible.

Thank you for reaching out.

Best regards

Charla

Sent from my iPhone

On Feb 28, 2025, at 9:55 AM, Sergio Quiros <Sergio.Quiros@asu.edu> wrote:

Hello,

I hope this email finds you well. Graduate College asked that we follow up regarding the request for an impact/support letter for the proposed [MS in Artificial Intelligence Engineering](#) concentrations (listed below). They have requested a response from your academic unit before March 5, 2025.

Thank you once again for considering this request. We truly appreciate your time and support.

Best,

Sergio Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Sergio Quiros

Sent: Thursday, February 6, 2025 11:40 AM

To: Charla Griffy-Brown <charla.griffybrown@thunderbird.asu.edu>; Lena Booth <Lena.Booth@thunderbird.asu.edu>; Josh Allen <Joshallen@thunderbird.asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>

Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed

MS in Artificial Intelligence Engineering concentrations:

1. [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
2. [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
3. [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
4. [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
5. [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
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9. [MS in Artificial Intelligence Engineering \(Robotics\)](#)
10. [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
11. [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Kate Eaton](#)
To: [Teresa Wu](#)
Cc: [Ohad Kadan](#); [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#); [Jessica Gallagher](#); [Ross Maciejewski](#); [Baoxin Li](#); [Rong Pan](#); [Sergio Quiros](#); [Michele Pfund](#)
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Wednesday, August 6, 2025 11:05:52 AM

Hi Teresa,

I appreciate your patience as we had some internal conversations about this. We support the concentration, but would like to note that, because operations and decision sciences is an area of expertise for W. P. Carey, we also may be interested in offering related degrees/concentrations in this space in the future. If this were to happen, we would hope to count on your support.

Thank you,

Kate

Kate Eaton, Ph.D.

Arizona State University | **W. P. Carey School of Business**

Associate Dean, Graduate Programs

Clinical Professor, Marketing

kkarnos@asu.edu | Slack: @kkarnos

Office: MCRD 357 | Ph: 480.965.2937 | [directory](#)

Pronouns: *she, her, hers* | [SafeZONE Ally](#)

I live and work on the ancestral lands of the Akimel O'odham (Pima) and Pee Posh (Maricopa) peoples.

| [#HonorNativeLand](#)

On Thu, Jul 31, 2025 at 7:56 AM Teresa Wu <Teresa.Wu@asu.edu> wrote:

Hi Kate,

Greeting from FSE!

I am reaching out as I've recently stepped into Jim's role - he is currently on phased retirement. I wanted to follow up on our earlier request, as we're working toward the Graduate College deadline on August 6. Please see the email thread below for reference.

As a quick note, the School of Computing, Informatics and **Decision** Systems Engineering was renamed to SCAI in 2021.

Thanks, and we are hopeful for a positive response and looking forward to more FSE-WPC collaborations.

Teresa

Teresa Wu
Vice Dean, Academic and Student Affairs
President's Professor, School of Computing and Augmented Intelligence
Director, ASU-Mayo Center for Innovative Imaging
Ira A. Fulton Schools of Engineering
Arizona State University

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Sent: Monday, March 3, 2025 10:27 AM
To: Kate Eaton <kkarnos@asu.edu>
Cc: Ohad Kadan <Ohad.Kadan@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <pwhelan@asu.edu>; Jessica Gallagher <jgallag5@asu.edu>; James Collofello <JAMES.COLLOFELLO@asu.edu>; Ross Maciejewski <rmacieje@asu.edu>; Baoxin Li <Baoxin.Li@asu.edu>; Rong Pan <Rong.Pan@asu.edu>
Subject: RE: FW: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hello,

The School of Computing and Augmented Intelligence (SCAI) has provided the following in response to the feedback:

Regarding the concern that “decision sciences and operations are typically the domain of business schools or economics departments”:

While it is true that business schools frequently cover these topics, they are also well-established subjects within Industrial Engineering, Systems Engineering, and Computer Science. These fields have long addressed complex decision-making, optimization, and operational efficiency, often leveraging advanced mathematical models and algorithms.

In fact, one of your suggested alternatives, “Operations Research,” is traditionally rooted in engineering disciplines, highlighting that the term “Operations” is not exclusively tied to business contexts. And since your suggestion used the term “Operations”, I assume it is good with your faculty.

Additionally, a search on “Decision Science” programs reveals that they are commonly housed in a variety of departments, including engineering and computer science, and are often interdisciplinary. This demonstrates that the field is not confined to business schools.

Moreover, our use of these terms is solely as concentration classifiers within the broader framework of the proposed degree, “AI Engineering.” This makes it clear that the program’s primary focus is on the engineering and computational aspects of

AI, which includes applying advanced decision science and operational techniques. Therefore, we respectfully disagree with the notion that this would cause confusion for prospective students.

We believe that the interdisciplinary nature of these topics actually strengthens the appeal and relevance of the proposed degree, aligning with the evolving demands of industry and research.

Please let us know if you have any questions or concerns.

Best,

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Kate Eaton <kkarnos@asu.edu>

Sent: Monday, February 17, 2025 2:00 PM

To: James Collofello <JAMES.COLLOFELLO@asu.edu>

Cc: Ohad Kadan <Ohad.Kadan@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <pwhelan@asu.edu>; Jessica Gallagher <jgallag5@asu.edu>; Sergio Quiros <Sergio.Quiros@asu.edu>

Subject: Fwd: FW: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hello Jim,

We are happy to provide our support to the proposed concentrations below, with the exception of the last one: MS in Artificial Intelligence Engineering (Operations and Decision Science). For the last one, we support the content of the degree but have some concerns about the title. In particular, we note that decision sciences and operations are typically the domain of business schools or econ departments. This might create confusion with our MS AI in Business.

We propose FSE consider one of the following alternative names for the last concentration to better separate it from our MS AI in Business program:

MS in Artificial Intelligence Engineering (Industrial Engineering)

MS in Artificial Intelligence Engineering (Operations Research)

Thank you,

Kate

Kate Eaton, Ph.D.

Arizona State University | **W. P. Carey School of Business**

Associate Dean, Graduate Programs

Clinical Professor, Marketing

kkarnos@asu.edu | Slack: @kkarnos

Office: MCRD 357 | Ph: 480.965.2937 | [directory](#)

Pronouns: *she, her, hers* | [SafeZONE Ally](#)

I live and work on the ancestral lands of the Akimel O'odham (Pima) and Pee Posh (Maricopa) peoples. | [#HonorNativeLand](#)

----- Forwarded message -----

From: **Ohad Kadan** <Ohad.Kadan@asu.edu>

Date: Thu, Feb 6, 2025 at 3:48 PM

Subject: FW: Statement of Support Request - MS in Artificial Intelligence Concentrations

To: Amy Ostrom <AMY.OSTROM@asu.edu>, Kate Eaton <kkarnos@asu.edu>, Pei-yu (Sharon) Chen <peiyu.chen@asu.edu>

Amy, Kate, and Pei-yu: Please advise on how to respond.

Thanks,
Ohad

From: Sergio Quiros

Sent: Thursday, February 6, 2025 11:40 AM

To: Ohad Kadan <Ohad.Kadan@asu.edu>; Jessica Gallagher <Jessica.Gallagher@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>

Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed [MS in Artificial Intelligence Engineering](#) concentrations:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)

- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
- [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
- [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)
- [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Marc Adams](#)
To: [Michelle Villegas-Gold](#); [Sergio Quiros](#); [Rachel La Vine](#)
Cc: [James Collofello](#); [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#)
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Thursday, February 6, 2025 8:32:15 PM

Dear Jim and all –

Thanks for the opportunity to review these proposals.

After reviewing the 11 concentrations, related new courses, and associated learning outcomes for the MS in Artificial Intelligence, I do not see any areas of concern regarding their impact on programs within the School of Technology for Public Health.

On behalf of the School of Technology for Public Health, I also express my support for the 11 concentrations under the MS in Artificial Intelligence Engineering.

-Marc

Marc A. Adams, PhD, MPH

Assistant Dean of Education | School of Technology for Public Health
Professor and Program Director, PhD in Population Health
Barrett Faculty Honors Council and Advisor (PBH, HEHP)
Senior Global Futures Scientist, Julie Ann Wrigley Global Futures Laboratory
Arizona State University | College of Health Solutions
425 N. 5th Street, Phoenix, AZ 85004 | ABC 233 | MC: 8920
480-884-2544 | Marc.Adams@asu.edu | [Google Profile](#) | [ASU Profile](#)



From: Michelle Villegas-Gold <Michelle.Villegas-Gold@asu.edu>
Date: Thursday, February 6, 2025 at 12:19 PM
To: Sergio Quiros <Sergio.Quiros@asu.edu>, Marc Adams <Marc.Adams@asu.edu>, Rachel La Vine <Rachel.Lavine@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>, Patrick Phelan (Professor) <phelan@asu.edu>
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations

Hi Jim,

Unless Marc has any concerns, I express my support on behalf of the School of Technology for Public Health.

Stay safe and be well,

Michelle Villegas-Gold, PhD, MPH, MC (She/Her)

Assistant Vice President, Strategic Initiatives

ASU Health

Arizona State University

E: michelle.villegas-gold@asu.edu

C: 520-247-1780

I live and work on the [ancestral lands](#) of the Akimel O'odham (Pima) and Pee Posh (Maricopa) peoples and benefit from their ongoing stewardship and place-based knowledge.

From: Sergio Quiros <Sergio.Quiros@asu.edu>

Sent: Thursday, February 6, 2025 11:40 AM

To: Marc Adams <Marc.Adams@asu.edu>; Rachel La Vine <Rachel.Lavine@asu.edu>; Michelle Villegas-Gold <Michelle.Villegas-Gold@asu.edu>

Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>

Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed [MS in Artificial Intelligence Engineering](#) concentrations:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
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- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Battinto Batts](#)
To: [Sergio Quiros](#); [Rebecca Blatt](#); [Alexis Weiler](#)
Cc: [James Collofello](#); [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#)
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Thursday, February 6, 2025 3:30:37 PM
Attachments: [image001.png](#)

Dear Jim,

The Cronkite School supports the creation of these academic programs and wishes you the very best in achieving your goals.

Best regards,

Dr. Battinto L. Batts Jr.

Dean and Professor

Walter Cronkite School of Journalism and Mass Communication

Arizona State University

Home of Arizona PBS

555 N. Central Ave., Phoenix, AZ 85004

email: battinto.batts@asu.edu



From: Sergio Quiros <Sergio.Quiros@asu.edu>
Date: Thursday, February 6, 2025 at 11:40 AM
To: Battinto Batts <Battinto.Batts@asu.edu>, Rebecca Blatt <Rebecca.Blatt@asu.edu>, Alexis Weiler <Alexis.Weiler@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>, Patrick Phelan (Professor) <phelan@asu.edu>
Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed [MS in Artificial Intelligence Engineering](#) concentrations:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Chemical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Computing Sciences\)](#)
- [MS in Artificial Intelligence Engineering \(Electrical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Human-Centered Artificial Intelligence\)](#)
- [MS in Artificial Intelligence Engineering \(Materials Science and Engineering\)](#)

- [MS in Artificial Intelligence Engineering \(Manufacturing\)](#)
- [MS in Artificial Intelligence Engineering \(Mechanical Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Robotics\)](#)
- [MS in Artificial Intelligence Engineering \(Software Engineering\)](#)
- [MS in Artificial Intelligence Engineering \(Operations and Decision Science\)](#)

Let me know if you have any questions or concerns.

jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing and Augmented Intelligence
Ira A. Fulton Schools of Engineering
Arizona State University

Sergio G. Quiros

Assistant Director of Academic Administration
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: [Bill Terrill](#)
To: [Sergio Quiros](#); [Chris Hiryak](#)
Cc: [James Collofello](#); [Jeremy Helm](#); [Patrick Phelan \(Professor\)](#); [Cynthia Lietz](#)
Subject: Re: Statement of Support Request - MS in Artificial Intelligence Concentrations
Date: Friday, February 7, 2025 4:16:23 PM

Hi Jim,

Watts is pleased to support the MS concentrations in AI Engineering.

Best,
Bill

William Terrill, PhD
Arizona State University
Associate Dean, Watts College of Public Service and Community Solutions
Professor, School of Criminology & Criminal Justice
Co-Editor, Policing: A Journal of Policy & Practice

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Sent: Thursday, February 6, 2025 11:40 AM
To: Bill Terrill <William.Terrill@asu.edu>; Chris Hiryak <chris.hiryak@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Patrick Phelan (Professor) <phelan@asu.edu>
Subject: Statement of Support Request - MS in Artificial Intelligence Concentrations

Sent on behalf of James Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for the following proposed [MS in Artificial Intelligence Engineering](#) concentrations:

- [MS in Artificial Intelligence Engineering \(Aerospace Engineering\)](#)
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Let me know if you have any questions or concerns.

jim

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MS in Artificial Intelligence Engineering (Operations and Decision Science)

ES-Ira A Fulton Schools of Engineering

Mission

This mission of the MS in Artificial Intelligence (AI) Engineering (Operations and Decision Science) program is to enable students from a variety of engineering backgrounds to understand AI systems and how they are created and used both technically and societally. Students must know how these systems and tools work “under the hood” so that they can make them effective and ethical. We do this by making this degree accessible to students through a rigorous set of core classes emphasizing fundamental AI algorithms and methods, knowledge of existing and emerging AI tools and resources, the ethics and social responsibility associated with AI, and the data collection and evaluation essential for AI. A variety of electives tailored to industrial engineering and data science provides the skills needed to apply AI to their engineering domain, and a culminating experience consisting of a portfolio, applied project, or thesis will demonstrate his/her skills to problems inspired by industry and/or societal needs. This mission aligns with multiple ASU design aspirations, including “transform society,” “fuse intellectual disciplines,” “conduct use-inspired research,” and “practice principled innovation.”

Goals

The goals of the MS in Artificial Intelligence (AI) Engineering (Operations and Decision Science) program are to prepare graduates for technical positions where they can apply their engineering and AI skills. Graduates will be able to apply machine learning, AI approaches such as natural language processing, artificial vision, and the application of large language models, as well as to assemble and process the data needed to solve relevant problems in their engineering discipline with due consideration for ethical and societal factors.

Outcome 1

Graduates will evaluate AI systems and AI engineering specific to industrial engineering.

Concepts

Machine learning, artificial neural networks, natural language processing, artificial vision, large language models with application to industrial engineering

Competencies

Graduates will be able to understand and compare various AI methodologies, including their accuracy, interpretability, reliability, privacy, robustness, and mitigation of harmful bias in order to select the most promising approaches to solve applied engineering problems in industrial engineering.

Assessment Process

For Measure 1.1 the culminating experience will be used, specific to the student and industrial engineering. The portfolio or thesis will be assessed by a rubric that measures how well graduates understand AI systems (scored from 1 to 5), and how well they are able to evaluate them (also scored from 1 to 5). This rubric is applicable to both culminating experience options. For Measure 1.2 the Graduate and Law Student Report Card (GLSRC), specifically the question “How strong was your graduate program in providing training in each of the following areas [Subject matter knowledge in your field]?” will be used as students apply to graduate. For both Measures the Graduate Program Chair, in consultation with the Graduate Program Committee, will specifically look at average rubric scores and survey results compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Assessment data will be used for continuous improvement of the curriculum.

Measure 1

The culminating experience, whether a portfolio (no course) or thesis (IEE 599), will be assessed via a rubric.

Performance Criterion 1

At least 80% of the students will meet or exceed expectations using a faculty-developed rubric.

Measure 2

Graduating students will be surveyed (via the Graduate and Law Student Report Card, GLSRC) to determine their ability to apply the aforementioned AI engineering skills, specifically the question “How strong was your graduate program in providing training in each of the following areas [Subject matter knowledge in your field]?”

Performance Criterion 2

At least 80% of the surveyed graduating students answer this question as ‘very strong’ or ‘strong.’

Outcome 2

Graduates will apply ethical standards and social responsibility to the application of AI in professional environments.

Concepts

Code of ethics, social responsibility, legal system, AI principles and practices, AI benefits and risks

Competencies

Graduates will be able to take into consideration the ethical and societal implications of AI technologies, including potential biases, privacy implications, preventing discrimination, and social inequalities.

Assessment Process

For Measure 2.1 the written report of the required semester project in FSE 561 AI Ethics & Social Responsibility will be used. The report will be assessed by a rubric that measures how well ethical and societal implications of AI technologies were taken into account (scored from 1 to 5). For Measure 2.2 the Graduate and Law Student Report Card (GLSRC), specifically the question "How strong was your graduate program in providing training in each of the following areas [Ethical standards in your field]?" will be used as students apply to graduate.

Assessment tagging will be used to disaggregate data for each concentration. For both Measures the Graduate Program Chair, in consultation with the Graduate Program Committee, will specifically look at average rubric scores and survey results compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Assessment data will be used for continuous improvement of the curriculum.

Measure 1

The written report for the required semester project in FSE 561 AI Ethics & Social Responsibility will be assessed via a rubric.

Performance Criterion 1

At least 80% of the students will meet or exceed expectations using a faculty-developed rubric.

Measure 2

Graduating students will be surveyed (via the Graduate and Law Student Report Card, GLSRC) to determine their ability to take ethical and societal considerations into account, specifically the question "How strong was your graduate program in providing training in each of the following areas [Ethical standards in your field]?"

Performance Criterion 2

At least 80% of the surveyed graduating students answer this question as 'very strong' or 'strong.'

Outcome 3

Graduates will communicate AI solutions effectively through both spoken and written expression to technical and nontechnical audiences.

Concepts

Appropriate context, motivation, structure, organization, audience understanding, syntax, references, graphics, and visuals

Competencies

Graduates will be able to develop and present written and oral presentations to both technical and nontechnical audiences, while demonstrating clarity, ethical communication, respect for the audience, process understanding, and credibility, while explaining costs versus benefits, public safety, sustainability, global, cultural, social, environmental, and economic factors.

Assessment Process

For Measure 3.1 the written report for the required semester project in IEE 505 Information Systems Engineering will be used. The presentation will be assessed by a rubric that measures how well graduates communicated AI concepts. For Measure 3.2 the Graduate and Law Student Report Card will be used, specifically the question “How strong was your graduate program in providing training in each of the following areas [Public speaking and presentation skills]”. Assessment tagging will be used to disaggregate data for each concentration. For both Measures the Graduate Program Chair, in consultation with the Graduate Program Committee, will specifically look at average rubric scores and survey results compared to historical data. Sustained dips in scores or survey results will prompt faculty to examine teaching methods and materials. Assessment data will be used for continuous improvement of the curriculum.

Measure 1

The written report for the required semester project in IEE 505 Information Systems Engineering will be assessed via a rubric.

Performance Criterion 1

At least 80% of the students will meet or exceed expectations using a faculty-developed rubric.

Measure 2

Graduating students will be surveyed (via the Graduate and Law Student Report Card, GLSRC) to determine their ability to communicate their results, specifically the question “How strong was your graduate program in providing training in each of the following areas [Public speaking and presentation skills]”.

Performance Criterion 2

At least 80% of the surveyed alumni answer this question as ‘quite a bit’ or ‘very much.’

MS AI Engineering Approved Electives (All Concentrations)

May 28, 2025

Notes: Any class listed as a possible core class not taken towards a core requirement can be taken as an elective. Likewise, any class listed as a possible concentration class not taken towards a concentration requirement can be taken as an elective.

Other Approved Electives:

AME 598 AI for Social Good
AME 598 Minds and Machines
AME 598 Human-AI Interaction
BMI/BME/CSE/CEN 507 Image Processing and Analysis
BMI/CEN 598 Topic: Embedded Machine Learning
BMI 502: Foundations of Biomedical Informatics Methods I
BMI 505: Foundations of Biomedical Informatics Methods II
HSD 598: AI & Society: Ethics & Impact
TPH 554 Artificial Intelligence and Machine Learning in Public Health
CEN 598 Advanced Hardware and Systems for Machine Learning
EEE 517 Sensors and Machine Learning
EEE 598 Advanced Hardware and Systems for Machine Learning
MAE 598 Bio-Inspired Robotics
CDE 598 Pattern-centered Analysis
FSE 501: Technology Entrepreneurship