

Applied Science, Applied AI (B.A.S.)

General Education (32 credit hours)

For the BAS program, 32 credits hours of General Education are required.

- 6 credit hours in Communication
- 9 credit hours in Humanities/History/Fine Arts
- 6 credit hours in Social/Behavioral Sciences
- 8 credit hours in Natural Sciences
- 3 credit hours in Mathematics

See [Graduation from the University link](#) for University General Education Program requirements. Note the following are specified by the department for this program:

MATH 1710 College Algebra **

Core (7-9 credit hours)

The following courses are required.

UNIV 3540 Ethics & Professionalism **

Capstone

The senior project is a student's culminating experience or capstone designed to synthesize and integrate the content of a student's program of study. The senior project is completed during a student's final semester. Approved co-ops or internships with industry are allowed.

Choose from one of the following:

APPT 4110 Academic Internship

[Before] Or

APPT 4995 Senior Capstone Project

Experiences Outside the Classroom

Students are required to acquire credit through coursework, transfer credit, prior learning for technical certifications or licensures in approved areas, or other approved experiences outside the classroom. If attained through coursework, additional hours may be required in the concentration. Consult with your advisor. Credit for prior learning will be awarded through APPT 3901 Advanced Technical Certification or ELC 3900 Experiential Learning Adv (1-3 hours).

APPT 3901 Advanced Technical Certification
[Before] or
ELC 3900 Experiential Learning Adv

Applied AI Core (27 credit hours)

The following courses are required.

AIFA 1000 Artificial Intelligence (AI) Literacy
AIFA 2010 Skills and Techniques for Applied AI
CSCI 4017 Intro to Information Assurance**
PHIL 2000 Artificial Intelligence and its Ethics
TECH 1010 Computer Applications in Tech
TECH 3440 Project Plan/Cost Evaluation
TECH 3701 Data Foundations & Visualization
TECH 4460 Work Design/Improvement

Field of Study

Complete one of the following fields of study.

Applied AI (15 credit hours)

TECH 1211 Computer Programming
TECH 2251 Adv Programming Technology
CSCI 3222 Database Mgmt System**
TECH 3711 Applied Machine Learning Tools

TECH 3712 Automation and Scripting with AI

Instructional Design and Technology (12 credit hours)

IDT 4052 Designing for Artificial Intelligence in Education**

IDT 4060 Applied Message Design**

IDT 4071 Designing for Learning Analytics**

IDT 4074 Design for Theories and Models of Instructional Technology**

Electives (37-42 credit hours)

May be chosen to bring the total number of hours to 120 with a minimum of 30 upper-division hours. Elective hours may come from Experiential Learning Credit (ELC), military service credit, transfer credits, or other related areas. Learn more about Experiential Learning Credit at <https://www.memphis.edu/cree/elc/>

To focus on a particular subject area, the following blocks of electives are recommended.

Advanced Applied AI

TECH 4711 Cloud & AI Platforms

TECH 4712 Data Engineering

TECH 4713 MLOps

Cybersecurity

TECH 3241 Internet Technology

TECH 4272 Operating Systems

TECH 4281 Computer Network Technology

TECH 4282 Enterprise Networking and Security

TECH 4721 Cybersecurity & Forensics & Incident Response

TECH 4722 Cybersecurity Risk Management and Compliance

Software Development

TECH 4262 Modern Programming
TECH 4263 Server Application Technology

Leadership, Professional Communication, and Ethics

AI Ethics and Governance

PHIL 3571 Business Ethics and Society **
PHIL 3806 The Ethics of AI and Big Data **
PHIL 4001 AI Ethics and Risk Mitigation
COMM 3100 Communication Ethics **
SOC 4435 AI, Power, and the Sociology of Knowledge

Leadership

COMM 3342 Communication and Leadership
MGMT 3110 Principles of Management**
MGMT 4462 AI-Infused Leadership
TECH 4381 Principles of Supervision**
SOC 3742 Group Dynamics and Leadership

Professional Writing and Documentation

ENGL 3601 Technical and Profess Writing **

ENGL 3603 Engineering Communications
ENGL 4618 Document Design**

Public Speaking and Presentation Skills

COMM 2381 Oral Communication
COMM 3320 Advanced Public Speaking
MGMT 3032 Communication and Career Readiness for Business Professionals
COMM 3342 Communication and Leadership

Team Communication and Conflict Resolution

COMM 4341 Interpersonal Communication **
COMM 4342 Small Group Communication
COMM 4380 Communication and Conflict **
MGMT 4411 Creating Positive Workplace Cultures
SOCI 3742 Group Dynamics and Leadership