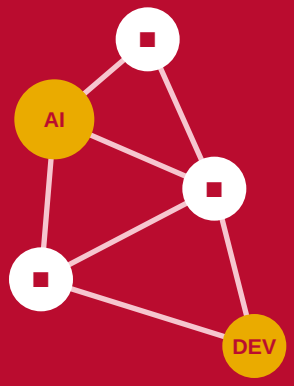
UMSL

COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
University of Missouri–St. Louis

BUILD WITH AI. THINK LIKE AN ENGINEER.

AGENTIC SOFTWARE DEVELOPMENT



CMP SCI 4890 | 3 CREDIT HOURS

Don't just ask AI for code. Direct the development.

Learn to guide AI coding agents through the real work of software development: planning, building, testing, debugging, and improving Python applications.

01 PLAN & DIRECT
Break problems into tasks. Manage agent context, instructions, and multi-step workflows.

02 BUILD WITH AGENTS
Create and modify Python applications while keeping control of architecture and code.

03 TEST & DEBUG
Generate tests, diagnose failures, refactor, and verify that solutions actually work.

04 REVIEW & SECURE
Evaluate quality, maintainability, security, and changes in a version-controlled workflow.

SPRING 2027
3 credit hours

PREREQUISITE
CMP SCI 2250

READY TO BUILD THE NEXT GENERATION OF SOFTWARE?

Ask your Computer Science advisor about CMP SCI 4890.

umsl.edu/cmpsci

Course details and availability are subject to the official schedule and department updates.