

California State University, Sacramento

Department of Computer Science

M.S. in Computer Science Program

Graduate Learning Goals/Objectives and Program Learning Outcomes

Graduate Learning Objectives	Graduate Learning Outcomes
Master, integrate, and apply advanced knowledge and skills to solve complex computer science problems.	<ol style="list-style-type: none">a. Apply advanced knowledge of mathematics, algorithmic principles, computing theory, and principles of computing systems in the modeling and design of computer-based systems.b. Apply hardware design or software development process that includes requirements, design, development, verification and validation.c. Apply current technology and best practices in the development of computer-based systems of varying complexity.
Produce quality technical and non-technical documents and presentations for a variety of audiences.	<ol style="list-style-type: none">a. Use proper structure, syntax, and organization.b. Communicate effectively technical content.c. Deliver oral presentations effectively.
Demonstrate the ability to be creative and analytical, and to contribute to the discipline.	<ol style="list-style-type: none">a. Create novel ideas, algorithms, and/or theoretical solutions; or develop new techniques and/or innovative implementations for a new or existing problem.
Demonstrate the ability to obtain, assess, and analyze developments and advancements in computer science.	<ol style="list-style-type: none">a. Perform a thorough study and evaluation of related work.b. Evaluate the current methodologies and state of the art technologies.
Adhere to ethical standards of the profession.	<ol style="list-style-type: none">a. Understand, and abide by, ethical standards.
Understand the social and global implications of his/her professional activities.	<ol style="list-style-type: none">a. Understand the implication of his/her professional activities.

(See the next page.)

California State University, Sacramento

Department of Computer Science

M.S. in Software Engineering Program

Graduate Learning Goals/Objectives and Program Learning Outcomes

Graduate Learning Objectives	Graduate Learning Outcomes
Master, integrate, and apply advanced knowledge and skills to solve complex software engineering problems.	<ol style="list-style-type: none">a. Apply advanced knowledge of mathematics, algorithmic principles, computing theory, and principles of computing systems in the modeling and design of software systems.b. Apply software development process that includes requirements, design, development, verification and validation.c. Apply current technology and best practices in the development of software systems of varying complexity.
Produce quality technical and non-technical documents and presentations for a variety of audiences.	<ol style="list-style-type: none">a. Use proper structure, syntax, and organization.b. Communicate effectively technical content.c. Deliver oral presentations effectively.
Demonstrate the ability to be creative and analytical, and to contribute to the discipline.	<ol style="list-style-type: none">a. Create novel ideas, algorithms, and/or theoretical solutions; or develop new techniques and/or innovative implementations for a new or existing problem.
Demonstrate the ability to obtain, assess, and analyze developments and advancements in software engineering.	<ol style="list-style-type: none">a. Perform a thorough study and evaluation of related work.b. Evaluate the current methodologies and state of the art technologies.
Adhere to ethical standards of the profession.	<ol style="list-style-type: none">a. Understand, and abide by, ethical standards.
Understand the social and global implications of his/her professional activities.	<ol style="list-style-type: none">a. Understand the implication of his/her professional activities.