

MASTER'S OF SCIENCE IN ADMINISTRATION

Software Engineering Specialization

Mission Statement

The Departments participating in the MSA program ensure that graduates, in their full diversity, achieve mastery of the skill sets that will enable them not only to perform the professional work tasks in their respective fields competently but also to assume roles as strategic team members who can apply innovative planning and problem solving to further the goals of their organizations.

Student Learning Outcomes

Students with a MSA in Software Engineering should be able to do the following:

Content

- Apply computing concepts to a specific problem domain (e.g. medical software, organizational workflow, high performance computing, etc.).
- Discuss concepts related to software life cycle, including communication with users, developing requirements, testing, leading software development teams, and managing the software development process.
- Integrate successful fundamental business principles as part of an interdisciplinary solution set to address organizational issues in government and non-profit organizations.
- Identify evaluation strategies for use in administrative settings.

Critical Thinking

- Identify and analyze alternate approaches to solving computing problems in various application domains.
- Apply fundamentals of economics, financial management, marketing management, organizational behavior, e Business systems and general management to enrich the administrative decision processes in governmental and non-profit settings.
- Analyze situations for evaluation design, questions, and strategies.

Communication

- Employ and utilize effective and professional technical writing skills.
- Communicate, orally and in writing, current issues relevant to software engineering through a variety of media.

- Communicate with colleagues and constituents using current business and management terminology.
- Communicate results, policy, and procedures with colleagues and constituents.

Integrity/Ethics/Characteristics

- Describe resources and standards relevant to the ethical development and maintenance of software systems.
- Explain and analyze the issues relating to management ethics and social responsibility.
- Describe and assess the processes of individual and group decision making, illustrating when each should be used in the context of Organization Learning.
- Apply ethical standards to evaluation processes and procedures.

Project Management

- Conceive, plan, organize and execute a significant months long software engineering project.
- Collaborate with team members where appropriate and defend results and outcomes at the end of a project timeline.
- Diagnose the effectiveness of a work team and prescribe ways for increasing group effectiveness within the context of Organization Learning.
- Structure evaluation processes for efficient and effective project completion.

Assessment of Student Learning Outcomes

MSA-Software Engineering graduate students will be assessed in a two semester capstone experience which is required toward the end of their program of study. The capstone requirement allows students to demonstrate an integrative grasp of the outcomes by developing a research project or software system of appropriate complexity that must abide by ethical standards and make a creative contribution to the field.

Job Prospects for Software Engineering Graduates

Management/Administration positions in companies that use/develop/maintain large, complex software systems. Examples include:

Software publishers
Insurance Carriers
Investment Firms

Technical Consultants
Government Agencies

Find out more about MSA in Software Engineering at UWF:

<http://uwf.edu/msaprogram/msa-sea.cfm>