

# Space Systems Operations Management (MS)

This program is offered by the George Herbert Walker School of Business and Technology. It is available online and at the Colorado Springs Metropolitan, but it is not available at the St. Louis main campus.

## Program Description

The master of science (MS) degree-seeking student should consult the Admission, Enrollment, and Academic Policies sections for policies regarding application, admission, registration and the academic policies of Webster University.

In addition to the required core courses and the elective courses, the following options may be components of the student's degree program: master of arts (MA) degree professional seminars, internship, thesis or project, and credit transferred into the degree program. The student is limited to 3 credit hours of professional seminars and two issues courses.

Students may not apply for dual majors because of the technical nature of the MS degree program.

The MS in space systems operations management is accredited by the Accreditation Council for Business Schools and Programs (ACBSP).

## Program Learning Outcomes

- Students will be able to explain the important terminology, facts, concepts, principles, analytic techniques and theories used in the field of space systems operations management.
- Students will be able to effectively apply important terminology, facts, concepts, principles, analytic techniques and theories used in the field of space systems operations management when analyzing complex factual situations.
- Students will be able to effectively integrate (or synthesize) important facts, concepts, principles and theories in the field of space systems operations management when developing solutions to multifaceted space systems operations management problems in complex factual situations.

## Emphasis Areas

The MS in space systems operations management is designed to prepare individuals for positions in the public and private sectors of the space industry.

The space systems **engineering and technical management** emphasis enables the student to understand the environment, technology and complexities of space operations and to apply quantitative and qualitative approaches to planning, executing and managing programs in the global environment of the space industry.

The space systems **acquisitions and program management** emphasis prepares individuals to handle space-related contracts and unique aspects of space systems acquisitions including software, hardware, personnel resources, budgeting and risk mitigation.

## Program Curriculum

The 39 credit hours required for the MS degree must include the following core courses for a major in space systems operations management with an emphasis in space systems engineering and technical management or with an emphasis in space systems acquisitions and program management:

## Core Courses

### Engineering and Technical Management

- SPSM 5000 Space Environment (*Requisite Course*) (3 hours)
- SPSM 5730 Space Operations Research (3 hours)
- SPSM 5740 Space Systems Dynamics-Orbital Mechanics (3 hours)
- SPSM 5750 Space Systems Engineering (3 hours)
- SPSM 5770 Space Operations Management (3 hours)
- SPSM 6000 Practical Research in Space Operations (3 hours)

### Acquisitions and Program Management

- SPSM 5000 Space Environment (*Requisite Course*) (3 hours)
- SPSM 5600 Space Systems Acquisition Law (3 hours)
- SPSM 5650 Space Systems Contracting (3 hours)
- SPSM 5730 Space Operations Research (3 hours)
- SPSM 5950 Space Systems Project Management (3 hours)
- SPSM 6000 Practical Research in Space Operations (3 hours)

### Five elective courses chosen from the following for either emphasis

- SPSM 5700 Space Commanding Systems (3 hours)
- SPSM 5710 Space Communications Systems (3 hours)
- SPSM 5760 Space Bio-Astronautics (3 hours)
- SPSM 5800 GPS-Space Radio Navigation Systems (3 hours)
- SPSM 5900 Space Commercialization (3 hours)
- SPSM 5910 Space Systems Integration (3 hours)
- SPSM 5930 Space Systems Law and Policy (3 hours)
- SPSM 5940 Space Decision Support Systems (3 hours)
- SPSM 5990 Issues in Space Operations (3 hours)

In addition, the student chooses two elective courses (6 credit hours) from this major or from the program curricula of other George Herbert Walker School of Business & Technology majors.

## Admission

See the Admission section of this catalog for general admission requirements. Students interested in applying must submit their application online at [www.webster.edu/apply](http://www.webster.edu/apply). Transcripts should be sent from your institution electronically to [transcripts@webster.edu](mailto:transcripts@webster.edu). If this service is not available, send transcripts to:

Office of Admission  
Webster University  
470 E. Lockwood Ave.  
St. Louis, MO 63119

## Additional Requirements

Applicants to the space systems operations management (MS) must have completed a business or business-related undergraduate degree meeting the following criteria:

- University/college is regionally accredited
- The business school must have a business-related accreditation (e.g. AACSB, ACBSP, IACBE, etc.)

Applicants who do not meet these qualifications must do **one** of the following:

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- Successfully complete BUSN 5000.
  - Note: BUSN 5000 will count as an elective in the program. This option is **only** available for students who are required to take BUSN 5000.
- Complete **all** of the following undergraduate courses (or their equivalents) with a grade of C- or better (17 credit hours total, not including individual course prerequisites):
  - MNGT 2100 Management Theory and Practices
  - ACCT 2010 Financial Accounting
  - BUSN 2750 Introduction to Statistics
  - ECON 2000 Survey of Economics
  - MNGT 2500 Marketing
  - BUSN 3500 Business and Global Issues
  - BUSN 4500 Ethical Issues in Business

## Advancement to Candidacy

Students are admitted to their graduate program upon completion of all admission requirements. Students are advanced to candidacy status after successfully completing 12 credit hours with a cumulative GPA of 3.0 or higher. In specialized programs, courses required as prerequisites to the program do not count toward the 12 credit hours required for advancement.