

M.S. in Safety Science

Degree Requirements

Graduate Assistantships

Graduate assistantships are academic appointments that are reserved for qualified graduate students. Graduate assistants are involved in research activities under the direction of a faculty member. To be eligible for a graduate assistantship, a student must have full graduate status in a degree program, must have maintained a CGPA of 3.00 out of a possible 4.00 or above through the end of the semester (graduate or undergraduate) preceding the appointment, and must demonstrate adequate communication and technical skills.

Each department has the responsibility to post the availability of its graduate assistantships. Current students submit an application form, resume, and a 500-word essay directly to the Department of Safety Science. Newly admitted students submit their application materials to admissions. Please note that any student who is eligible to receive VA benefits under the Post-9/11 GI Bill® Yellow Ribbon Program is not eligible to apply for a graduate assistantship.

Graduate assistantships carry a stipend set by the University and a partial tuition waiver; in addition, limited hourly graduate employment opportunities within a department may be available. Graduate assistants with such appointments are expected to devote up to 20 hours each week to effectively carry out their assignments. Under some circumstances, partial assistantships providing either tuition or a stipend may be granted. Expected time to be devoted is set by the assigning department. Graduate assistants are permitted to accept other University employment; however, University policies limit all students to a total of 25 hours of work per week, including the graduate assistantship. All graduate research assistantships, both full and partial, require that the recipient be registered for at least three graduate credits at Embry-Riddle for any semester of their appointment.

Graduate Internships

Graduate internships are temporary professional or industrial work opportunities available to graduate students. There are two types of internships: resident and nonresident. Resident internships are professional work activities supported by a partnership between the University and industry and conducted on campus under the supervision of a faculty/staff sponsor. Nonresident internships are professional work activities conducted off campus at the supporting organization facility. Full-time employees of the offering organization are not eligible for an internship appointment and cannot receive elective credit for their professional work service.

Graduate students who have full graduate status, are in good standing, with a minimum of six completed graduate credit hours, and who earn a cumulative GPA of 3.00 on a 4.00 basis, are eligible to apply for graduate internships. Students must demonstrate adequate communication and technical skills.

Students selected for an internship must register for the approved number of credit hours in the departmental internship course and pay all fees. Graduate academic credit is awarded at a rate of one credit hour for every 200 clock hours of work completed, up to a maximum of three credit hours in one semester. Three internship credit hours may be applied as an elective toward degree requirements. Students are advised to consult with the Safety Science internship coordinator for approval to use internship credits toward their degree program.

Guidelines for Graduate Capstone Projects and Theses

The graduate program in the Department of Safety Sciences offers the degree of Master of Science in Safety Science, which is a 33 credit-hour program. In addition to course work, this degree requires the completion

of a research project, either a 3-hour graduate capstone (with 30 hours of course work), or a 6-hour master's thesis (with 27 hours of course work). Those students who are planning to do a capstone should have registered for a total of three hours of MSF 691 before graduation. Those planning to do a thesis should register for six hours of MSF 700 before graduation. The detailed information in this section is intended to assist graduate students in the completion of this research requirement.

The Difference between a Capstone and a Thesis

If the student has any aspirations to later pursue a doctorate, a thesis is strongly recommended, since this is good preparation for writing a dissertation. A thesis is a project that requires the collection and analysis of data in an original fashion. This work should be suitable for submission to a peer-reviewed journal for publication, and takes multiple semesters to complete successfully.

In contrast, a capstone project may consist of a selection from a number of possible options: for example, documenting results of an internship in which the student designed a safety program or conducted hazard analyses, or replicating previously-published research to validate findings. The capstone project is completed over the course of one semester and provides students an opportunity to create and document significant evidence of mastery of the safety science core body of knowledge, and provides the student evidence of experience to show to current and prospective employers.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>.

Program Requirements

Safety Science - Occupational Safety

Occupational Safety Core (15 Credits)

MSF 580	Ind Hygiene & Envrnmntl Prctcn	3
MSF 601	Ergonomics	3
MSF 602	Human Factors	3
MSF 603	Occupational Safety	3
MSF 616	Safety Training & Leadership	3

Safety Science Research Core (9-12 Credits)

MSF 600	Quantitative Methods	3
MSF 612	Research Methods	3

Select one of the following:

Option 1		
MSF 691	Graduate Capstone Course	3
Option 2		
MSF 700	Thesis	6

Occupational Safety Electives (6-9 Credits)

Choose a total of 6-9 credits from the list of courses below:

MSF 530	Arcrft Accident Investigation	3
MSF 606	Cntrl Mthds Occpntl Sfty Hlth	3
MSF 607	Epidemiology	3
MSF 609	System Safety	3
MSF 611	Case Studies in Safety	3
MSF 614	Safety Ethics	3
MSF 630	Aircraft Accident Analysis	3
MSF 635	Adv Aircraft Survivability	3
MSF 675	Aviation Maintenance Safety	3

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MSF 686	Emergency Preparedness	3
MSF 696	Internship in Safety Science	1-3

Directed Study may be approved by the Department Chair.

Total Credits **33**

* Students in the occupational safety track may complete any non-duplicating course from the aviation safety core as an elective credit.

Safety Science - Aviation Safety

Aviation Safety Core (12 Credits)

MSF 603	Occupational Safety	3
MSF 613	Aviation Safety Management Systems	3
MSF 616	Safety Training & Leadership	3
MSF 617	Aviation Human Factors	3

Safety Science Research Core (9-12 Credits)

MSF 600	Quantitative Methods	3
MSF 612	Research Methods	3

Select one of the following:

Option 1

MSF 691	Graduate Capstone Course	3
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Option 2

MSF 700	Thesis	6
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Aviation Safety Electives (9-12 Credits)

Choose a total of 9-12 credits from the list of courses

below:

MSF 530	Arcrft Accident Investigation	3
MSF 606	Cntrl Mthds Occptnl Sfty Hlth	3
MSF 607	Epidemiology	3
MSF 609	System Safety	3
MSF 611	Case Studies in Safety	3
MSF 614	Safety Ethics	3
MSF 630	Aircraft Accident Analysis	3
MSF 635	Adv Aircraft Survivability	3
MSF 675	Aviation Maintenance Safety	3
MSF 686	Emergency Preparedness	3
MSF 696	Internship in Safety Science	1-3

Directed Study may be approved by the Department Chair.

Total Credits **33**

* Students in the aviation safety track may complete any non-duplicating course from the occupational safety core as an elective credit.