

# Cover Sheet: Request 12318

## EAS4200C Aerospace Structures - Change Prereq

### Info

Process	Course Modify Ugrad/Pro
Status	Pending at PV - University Curriculum Committee (UCC)
Submitter	Bruce Carroll bfc@ufl.edu
Created	2/19/2018 9:12:53 AM
Updated	9/6/2018 1:57:35 PM
Description of request	Change prerequisite in EAS4200C Aerospace Structures from EGM3520 to EGM3520 with minimum grade of C. Also change lab code from C to none since course no longer has a lab component.

### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	ENG - Mechanical and Aerospace Engineering 011902000	Bruce Carroll		2/19/2018
No document changes					
College	Approved	ENG - College of Engineering	Heidi Dublin	Approved by HWCOE Curriculum Committee 4/24	4/30/2018
No document changes					
University Curriculum Committee	Commented	PV - University Curriculum Committee (UCC)	Andrew Figueroa	Added to September agenda.	8/29/2018
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			8/29/2018
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

# Course|Modify for request 12318

## Info

**Request:** EAS4200C Aerospace Structures - Change Prereq

**Description of request:** Change prerequisite in EAS4200C Aerospace Structures from EGM3520 to EGM3520 with minimum grade of C. Also change lab code from C to none since course no longer has a lab component.

**Submitter:** Bruce Carroll bfc@ufl.edu

**Created:** 4/24/2018 9:41:46 AM

**Form version:** 4

## Responses

### Current Prefix

*Enter the current three letter code (e.g., POS, ATR, ENC).*

Response:

EAS

### Course Level

*Select the current one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).*

Response:

4

### Number

*Enter the current three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles.*

Response:

200

### Lab Code

*Enter the current lab code. This code indicates whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).*

Response:

C

### Course Title

*Enter the current title of the course as it appears in the Academic Catalog.*

Response:

Aerospace Structures

### Effective Term

*Select the requested term that the course change(s) will first be implemented. Selecting "Earliest" will allow the change to be effective in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's expectations. Courses cannot be changed retroactively, and therefore the actual*

*effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires at least 6 weeks after approval of the course change at UF.*

Response:  
Earliest Available

**Effective Year**

*Select the requested year that the course change will first be implemented. See preceding item for further information.*

Response:  
Earliest Available

**Requested Action**

*Indicate whether the change is for termination of the course or any other change. If the latter is selected, all of the following items must be completed for any requested change.*

Response:  
Other (selecting this option opens additional form fields below)

**Change Course Prefix?**

Response:  
No

**Change Course Level?**

*Note that a change in course level requires submission of a course syllabus.*

Response:  
No

**Change Course Number?**

Response:  
No

**Change Lab Code?**

*Note that a change in lab code requires submission of a course syllabus.*

Response:  
Yes

**Current Lab Code**

Response:  
C

**Proposed Lab Code**

Response:  
None

**Change Course Title?**

Response:  
No

**Change Transcript Title?**

Response:  
No

**Change Credit Hours?**

*Note that a change in credit hours requires submission of a course syllabus.*

Response:  
No

**Change Variable Credit?**

*Note that a change in variable credit status requires submission of a course syllabus.*

Response:  
No

**Change S/U Only?**

Response:  
No

**Change Contact Type?**

Response:  
No

**Change Rotating Topic Designation?**

Response:  
No

**Change Repeatable Credit?**

*Note that a change in repeatable credit status requires submission of a course syllabus.*

Response:  
No

**Maximum Repeatable Credits**

*Enter the maximum credits a student may accrue by repeating this course.*

Response:  
0

**Change Course Description?**

*Note that a change in course description requires submission of a course syllabus.*

Response:  
No

**Change Prerequisites?**

Response:  
Yes

**Current Prerequisites**

Response:  
EGM3520

**Proposed Prerequisites**

Response:

EGM3520 (C)

**Change Co-requisites?**

Response:

No

**Rationale**

*Please explain the rationale for the requested change.*

Response:

Change prereq from EGM3520 to EGM3520 with minimum grade of C. The aerospace engineering curriculum requires a C or better in EGM3520. The requested change makes the prerequisite consistent with the curriculum.

Also change lab code from C to none. The course no longer contains a lab component.

## **EML4200 Aerospace Structures**

***Class Periods:*** MWF 8<sup>th</sup> Period

***Class Location:*** MAE-A 303

### ***Instructor:***

Dr. B.V. Sankar

[sankar@ufl.edu](mailto:sankar@ufl.edu)

352-392-5749

Office Hours: MW 1 to 2:30 pm

### ***Teaching Assistants:***

TA to be determined

### ***Course Description***

Review of plane states of stress and strain. Includes analysis of thin-walled beams with open and closed section, unsymmetrical bending of wing sections, torsion of skin-stringer and multi-cell sections, flexural shear in open and closed sections, Shear Center and failure criteria. Also includes introduction to composite materials and demonstration of behavior of some simple structural elements. Credits: 3

### ***Course Pre-Requisites / Co-Requisites***

*EGM3520 with minimum grade of C*

### ***Course Objectives***

Upon completion of this course, students will demonstrate:

- 1) knowledge of modern aerospace structural materials and their selection for various aircraft components;
- 2) ability to use engineering science tools such as advanced mathematics, stress analysis;
- 3) ability to perform stress and deformation analysis on common structural forms found on aerospace structures;
- 4) knowledge of failure criteria for engineering materials;
- 5) and ability to design simple aerospace structures to support mechanical loads.

The objectives will be achieved through:

- In class lectures and examples
- Student completion of homework
- Student completion of a project
- Student completion of weekly quizzes
- Student completion of Hour Exams and Final Exam

***Materials and Supply Fees:*** None

### ***Required Textbooks and Software***

*Advanced Mechanics of Materials*, A.P. Boresi and R.J. Schmidt, 6th Edition, John Wiley, 2003, ISBN 0-471-43881-2

### ***Course Schedule***

Week 1: Introduction to course

Week 2: Theory of Elasticity, HW1 Due

Week 3: Theory of Elasticity, HW2 Due

Week 4: Torsion, HW3 Due

Week 5: Torsion, HW4

**Exam 1**

Week 6: Unsymmetrical Bending, HW 5 Due

Week 7: Unsymmetrical Bending, HW6 Due

Week 8: Flexural Shear Flow, HW7 Due

Week 9: Shear Center, HW8 Due

Week 10: Failure Theories, HW9 Due

Week 11: Fracture Failure, HW10 Due

Week 12: Fatigue Failure, HW11 Due

**Exam 2**

Week 13: Elastic Buckling, HW12 Due

Week 14: Elastic Buckling

Week 15: Review, **Final Project Report Due**

Week 16: Review

**Final Exam**

***Evaluation of Grades***

Homework will be assigned weekly. There will be two in-class hour exams during the semester and a cumulative final exam. Students will also be assigned a project to work on during the last four weeks of the semester. The project will combine several aspects of the course for students to design the wing structure for a transport aircraft.

<b>Assignment</b>	<b>Percentage of Final Grade</b>
Homework	10%
Exam 1	25%
Exam 2	25%
Project	15%
Final Exam	25%

***Grading Policy***

<b>Percent</b>	<b>Grade</b>	<b>Grade Points</b>
93.4 - 100	A	4.00
90.0 - 93.3	A-	3.67
86.7 - 89.9	B+	3.33
83.4 - 86.6	B	3.00
80.0 - 83.3	B-	2.67
76.7 - 79.9	C+	2.33
73.4 - 76.6	C	2.00
70.0 - 73.3	C-	1.67
66.7 - 69.9	D+	1.33
63.4 - 66.6	D	1.00
60.0 - 63.3	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>



### ***Attendance Policy and Make-Up Policy***

Class attendance is expected. Unexcused absence of a lab period will result in a grade of zero for that experiment. Excused absences are consistent with university policies in the undergraduate catalog and require appropriate documentation (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>).

Make-up work is allowed for excused absences. Students must contact the instructor to make arrangements for make-up work.

### ***Students Requiring Accommodations***

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter to present to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### ***Course Evaluation***

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

### ***Class Demeanor***

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students.

### ***University Honesty Policy***

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. A violation of the honor code will result in academic sanctions (typically a failing grade assigned for the course) and further disciplinary action. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### ***Student Privacy***

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see:

<http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

### ***Campus Resources:***

#### ***Health and Wellness***

#### **U Matter, We Care:**

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in

distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

**Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

*Academic Resources*

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu). <https://lss.at.ufl.edu/help.shtml>.

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

**Library Support**, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <https://teachingcenter.ufl.edu/>.

**Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>.

**Student Complaints Campus:** [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf).

**On-Line Students Complaints:** <http://www.distance.ufl.edu/student-complaint-process>.