



UM-SJTU Joint Institute



Course: Mechanics of Composite Materials - VM 418

Class Location: F306

Class Times: TR 10-11:40AM

(Optional) Book 1: Advanced Composite Materials by Stephen Swanson

ISBN: 978-0024185549

(Optional) Book 2: Mechanics of Composite Materials (Second Edition) by Robert M. Jones

ISBN: 978-1560327127

Instructor: Dr. Shane Johnson

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Office: JI Building, Room 220

Office Hours: Monday & Wednesday, 2-3:40PM

Teaching Assistants: Hu Yazhe

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Office Hours: By Appointment

Office: Electronic Reading Room in JI Building (2nd Floor)

Course Description

Prerequisite: Vm211

An introduction to the mechanics of composite solids with an emphasis on the derivation of macroscopic constitutive laws based on the microstructure. Homogenization theory for periodic media. Effective stiffness properties of composites. Classical laminated plate theory. Failure theories and experimental results for laminates.

Grading:

Item	Percent of Grade
Homework	35%
Exam 1	20%
Exam 2	20%
Final Project	25%

Grading System:

96-100	A+	67-69	C
90- 95	A	64-66	C-
85- 89	A-	60-63	D
80- 84	B+	below 60	F
75- 79	B		
70- 74	B-		

Classroom Policies**Expectations**

Bring your book, calculator, notes, and an open mind to class every day. Class participation is encouraged, and extra points given for participation will be added directly to your exam score.

Make up exams

No make up quizzes or exams will be given except in cases of emergency.

Class Attendance

Class attendance will be taken randomly. Missing 2 random class attendance checks will result in a 5% overall VM418 grade deduction. Missing more attendance checks will result in an additional 5% grade deduction per class.

Dishonesty

Any form of dishonesty or falsehood related to the general conduct of the class (exams, homework, project, quizzes, etc.) will be considered a major offense and will be brought before the Honor Council for appropriate action.

Cellphones and Texting

Cellphones must be turned off or be in the silent mode during class hours. Cellphone operation (including reading or sending text messages) during class hours is not allowed and will be considered as cheating during exams.

Laptops

Laptops in class must be used for the class! Do not use them to chat, play games or other non-class activities during class. Violation will result in a documented class absence. See attendance policy for details.

Homework

Homework must be turned in by the posted due date. Each day late will result in 10% reduction in the homework score. This means that you get a zero for the homework assignment after 10 days late.