

MARS 3550: Life in Fluids

Syllabus

General Course Information

Instructors: Dr. Adrian Burd, Marine Sciences 110 K (adrianb@uga.edu)
 Dr. Daniela Di Iorio, Marine Sciences 250 (daniela@uga.edu)
 Dr. Patricia Yager, Marine Sciences 166 (pyager@uga.edu)

Class Times: Monday, Wednesday Friday, 1:25 — 2:15 pm, Marine Sciences 261

Textbook: *Life in Moving Fluids: The Physical Biology of Flow* by Steven Vogel, Princeton University Press.

Organisms exist in and rely upon fluids, whether that fluid is air or water. In this course we will study the effects that these fluids have on different organisms and how different organisms have adapted to living in, and using, fluids.

Month	Date	Day	Topic
January	7	M	Introduction
	9	W	Setting the scene: fluid dynamics
	11	F	Setting the scene: locating food
	14	M	Setting the scene: capturing food
	16	W	Setting the scene: internal flows
	18	F	Setting the scene: reproduction
	21	M	No Class: MLK Day
	23	W	Swimming, flying & motility
	25	F	Swimming, flying & motility
	28	M	Swimming, flying & motility
	30	W	Swimming, flying & motility
February	1	F	Mini Test 1
	4	M	Swimming, flying & motility
	6	W	Swimming, flying & motility
	8	F	Swimming, flying & motility
	11	M	Locating Food
	13	W	Locating Food
	15	F	Locating Food
	18	M	Locating Food
	20	W	Locating Food
	22	F	Locating Food
	25	M	Capturing Food in Fluids
	27	W	Mini Test 2
March	1	F	Capturing Food in Fluids
	4	M	Capturing Food in Fluids
	6	W	Capturing Food in Fluids
	8	F	Capturing Food in Fluids
	11	M	No class: Spring Break
	13	W	No class: Spring Break
	15	F	No class: Spring Break
	18	M	Capturing Food in Fluids

	20	W	Internal Flows:
	22	F	Internal Flows:
	25	M	Mini Test 3
	27	W	Internal Flows:
	29	F	Internal Flows:
April	1	M	Gas Exchange
	3	W	Gas Exchange
	5	F	Gas Exchange
	8	M	Gas Exchange
	10	W	Reproduction
	12	F	Reproduction
	15	M	Reproduction
	17	W	Reproduction
	19	F	Reproduction
	22	M	Mini Test 4
	24	W	Student Presentations
	26	F	Student Presentations
	29	M	Student Presentations

Course Grades

Course work will involve 4 mini-tests (each worth 10% of the total grade), class participation (10% of the total grade) and a term paper and presentation (worth a combined 50% of the total grade, 30% for the paper and 20% for the presentation).

Students will have to decide upon a topic for their research paper by **March 8th**, a list of possible topics will be provided by February 1st. For this, students will have to hand in a brief paragraph (under ½ page) and include citations to 5 relevant peer-reviewed articles from the scientific literature. A draft of the research paper will be due on **April 8th** and will be returned with comments by April 15th (5% of the 30% of marks for the paper will be assigned to how students respond to these comments in the final version of their research paper). The final version of the research paper will be due by **3pm on Friday May 3rd**.

Each student will give a short presentation on their research paper during class at the end of the semester (see schedule above).

ELC

Lecture notes and supplemental reading will be posted on the secure E Learning Commons web site <https://www.elc.uga.edu/>. You must have a UGA-myid account. For complete information on the use of eLC, go to the Student Help link and you will see what you need to access eLC, how to configure your web browser and numerous frequently asked questions. Once you log into eLC you will find MARS3550. All files will be in PDF format and you need to have the Adobe Acrobat Reader installed on your computer (<http://www.adobe.com/products/acrobat/readstep.html>). If you have problems please let us know.

Academic Honesty

All academic work must meet the standards contained in *A Culture of Honesty* which is available online at <http://honesty.uga.edu/ahpd/ACOH%20May%20'07.pdf> . Students are responsible for informing themselves about those standards before performing any academic work.

Students with Disabilities

Students with disabilities who require reasonable accommodation in order to participate in the course activities or meet course requirements should contact one of the instructors.

Course Withdrawals

Students withdrawing from the course before the midpoint of the semester will be assigned a grade of WP or WF depending on their performance in the class up until the time that the drop is initiated. For withdrawals after the semester midpoint, University policy requires that a grade of WF be assigned except in those cases in which the student is doing satisfactory work and the withdrawal is necessitated by ill health or other hardship as certified by the Office of the Vice President for Student Affairs. Students wishing to withdraw from the course after the midpoint of the semester under these circumstances should contact the Office for the Vice President for Student Affairs.

Syllabus Disclaimer

This course syllabus is a general plan for the course. Deviations from the syllabus that may be necessary will be announced to the class by one of the instructors.