

# PBIO 420 Phycology

**Professor:** Dr. Morgan Vis  
**Office:** 400 Porter Hall  
**Office Hours:** by appointment

**Lecture:** M, W, 11:10-12, F 12:10-1:00                      **Lab:** T, Th 11:10-1:00

**Text:** *Algae* by Graham & Wilcox      ISBN 0-13-660333-5  
*And the waters turned to blood* by R. Barker ISBN0-684-83126-0

**Grading:** 93-100 = A, 90-92 = A-, 89-87 = B+, 83-86 = B, 80-82 = B-, 77-79 = C+, 73-76 = C, 70-72 = C-, 67-69 = D+ 63-66 = D, 60-62 = D-, <60 = F

<b>Graded Work:</b>	Midterm Exam	30 pts
	Class Participation	20 pts
	Lab Notebook	20 pts
	Algae Item	10 pts
	Lab practical	30 pts
	Final	40 pts
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	Total	150 pts

**Dishonesty:** University policy will be followed and violations will result in a lowered or failing grade.

**Absences:** University policy will be followed. Students are expected to attend all sessions. Missed work may not be made up without adequate proof of legitimate absences as defined by Ohio University.

**Lab Practical:** The lab practical will be over all algal genera covered in lab. There will be microscope or demo stations. At each station there will be 2-3 questions and students will have 2 minutes at each station. Questions such as what genus, what division, what unusual feature etc will be asked.

**Notebook:** A notebook to be used exclusively for work/drawings in this class should be purchased; the notebook should contain labeled drawings of all the materials seen in class and notes on experiments. If preferred, a 3 ring binder may be used so that lab handouts can be kept with the drawings. It will be graded based on complete information and quality of drawings.

**Algae Item:** You must bring in an item containing an algal product such as agar, carrageenan, alginate or diatomaceous earth. Prize for most outrageous.

**Class Participation:** Each student will be given the opportunity to present journal articles of his/her choosing. The student should give an overview of the article including hypothesis tested, methods, results and conclusions. Students should convey to the class why they chose this particular paper and the significance. Each student will be graded according to his/her preparedness for the presentation, his/her ability to inform the class of the relevant points and his/her participation in other article discussions.

**Midterm Exam:** This exam will be 1 hour in duration and will cover all materials presented in class + any assigned readings. The exam will have a variety of questions including matching, definitions, short answer and essay.

**Final Exam:** The final exam will be 2 hours in duration. It will be comprehensive and cover lecture materials for the entire quarter. Like the Midterm Exam the questions will be matching, definitions, short answer and essay.

### Course Calendar (subject to change)

Week	Day	Date	Topic	Assignments
1	M	March 26	What are algae?	Chapter 1
	T	March 27	Algae are all around us	Be prepared to get wet/dirty
	W	March 28	Cyanobacteria	Chapter 6
	Th	March 29	Microscopic exam of algae from field trip	
	F	March 30	Endosym. & the Origin of Eukaryotic Algae	Chapter 7
2	M	April 2	Algal Diversity and Relationships	Chapter 5
	T	April 3	Cyanobacteria Lab	
	W	April 4	Red Algae	Chapter 16
	Th	April 5	Red Algae Lab	
	F	April 6	Discussion of Readings	
3	M	April 9	Dinoflagellates, Cryptomonads	Chapters 11, 9
	T	April 10	Set-up competition experiment	
	W	April 11	Euglenoids, Chrysophytes	Chapters 8, 13
	Th	April 12	Flagellates Lab	
	F	April 13	Discuss - And the waters turned t o blood	Book reading Due
4	M	April 16	Diatoms (Nate Smucker)	Chapter 12
	T	April 17	Diatom lab	
	W	April 18	Technological Applications of Algae	Chapter 4
	Th	April 19	Algal Technology Lab	
	F	April 20	<i>Caulerpa</i> Video	
5	M	April 23	Discussion of Readings	
	T	April 24	Temperate Marine Algae Lab	
	W	April 25	---	Midterm Exam
	Th	April 26	Finish competition experiment	
	F	April 27	Green Algae I	Chapter 17
6	M	April 30	Green Algae II & III	Chapters 18, 19
	T	May 1	Green Algae Lab	
	W	May 2	Green Algae IV & V	Chapters 20, 21
	Th	May 3	Green Algae Lab	
	F	May 4	Discussion of Readings	
7	M	May 7	Plankton Ecology	Chapter 22
	T	May 8	Survey of Ponds Field Trip	
	W	May 9	The role of Algae in Biogeochemistry	Chapter 2
	Th	May 10	Examine specimens from Field Trip	
	F	May 11	Discussion of Readings	
8	M	May 14	Freshwater Stream Ecology	Chapter 23
	T	May 15	Stream Algae as Biomonitors	
	W	May 16	Ochrophytes III, Haptophytes,	Chapters 14, 10
	Th	May 17	Examine specimens from field research	
	F	May 18	11am presentation by Emily H. 12 noon Pizza lunch question period	
9	M	May 21	Ochrophytes IV	Chapter 15
	T	May 22	TBA	
	W	May 23	Marine Macroalgal Ecology	Chapter 23
	Th	May 24	Tropical Marine Algae Lab	
	F	May 25	No Class	
10	M	May 28	Memorial Day No Class	
	T	May 29	Graduate Presentations	
	W	May 30	Graduate Presentations	
	Th	June 1	Lab Practical	Lab Note Book Due & algal item
	F	June 2	Review and wrap-up	
<b>Final</b>	<b>W</b>	<b>June 6</b>	<b>8 am - in Porter 305</b>	<b>Final Exam</b>

