BIO 311 (#43819) **Shailesh Lal 346 Dodge Hall 248-370-2875**
Fall, 2003 **Assistant Professor of Biological Sciences**
115 O' Dowd Hall **Office Hours: M: 10:00AM-12:00PM; W: 10:00AM-12:00PM; and by appt**
T and R 2:30-5:10PM Email: lal@oakland.edu

Purpose:
This course is designed for students to develop an understanding of the science of botany. Upon completion of this Course, students will have explored the topics of plant diversity, basic plant physiology, basic plant anatomy, and the practical importance of plants to society, and plant ecology. To foster this exploration a variety of teaching strategies will be used including pre-topic investigation, lecture, lab, discussions, and student presentations.

Text:
Required Text: Principles of Botany; Gordon Uno, Richard Storey and Randy Moore. This text is available in the bookstore. The price is about $90. You will not be required to purchase a laboratory text. Other course materials will be distributed in class or will be available for photocopying. I have copies of a CD-ROM designed to accompany the text. I will check these out to you. The text also has a website that we will use throughout the semester at: http://www.mhhe.com/biosci/pae/botany/uno/student/olc/weblinks_02.mhtml

Expectations:
My expectations of participants in this course: Students in this course are expected to have fun, to be interested in botany, and to attend each class period prepared to cover the day's topic. Readings and other assignments will be completed in a responsible and professional manner and submitted on time. I expect that students will be willing to ask questions and respect the questions of others. I also expect students to be willing to provide critical comments regarding my facilitation of the class and that students will seek my advice or assistance if they are having difficulty. Students must approach this course as an exploration - an activity that they are actively and fully engaged in - not merely a time to sit and take notes. I will be exploring botany along with you and discovering new things with each topic covered. One final key point: YOU are responsible for your learning in this course. I will give you ample opportunity to learn but you must decide whether you will learn.

What you can expect of me as an instructor:
Students can expect me NOT to have all the answers! If you are exploring this topic correctly, you should bring up topics every day that I can either not answer or have never thought of before! You can expect me to come to class prepared to facilitate the day's session. I will make every effort to present relevant information in an informative, interactive, and engaging manner. It is my responsibility to keep the class on track during discussions and to ensure that the class environment is a safe one where people feel confident to participate. You should expect me to respect you and your opinions. I will only assign tasks that are reasonable and that I am willing to invest my time in and that will improve your knowledge and competency. You can expect me to be available and responsive to your needs as a student and a class.

Accessibility

It is important to me that students can contact me through a variety of means and at many different times. Probably my favorite way for you to contact me is for you to stop by my office (Dodge 346). You are welcome during my "official" office hours (Tuesdays: 10:00PM-12:300PM, Fridays: 10:00PM-12:300PM) or we can meet at other times with a prior appointment. Contacting me by phone (leave a message if I'm not in) or email is also an excellent way to communicate

Lecture/Laboratory Sessions

The course officially meets for 2 days/week. It will be helpful if you complete the reading and related work prior to coming to class. I will "lecture" on selected topics in some sections. Since all of you have already taken Bio111 (a prerequisite for this course), topics that overlap with Bio111 will not be discussed in details in the class. I will also prepare lab-activities to be done during the lecture. The material (handouts, etc) pertaining to the laboratory aspects will be handed to you in the class. Since we do not have a separate laboratory class for this course, we may sometimes encounter situations in which the topics covered in the lecture does not directly relate to the laboratory exercise. In these situations, I will make sure that everyone is given sufficient background before the experiments. Depending on certain circumstances, I may divide the single lecture into two lecture and laboratory sections.

EXAMS AND GRADING:

Three 2-2.5 hours exam and a final exam will each count 25% of the course grade. These exams will contain both theoretical and practical aspects of course. Or in other words, the questions will consist of both short and multiple-choice style as well as the spot tests on the experiment performed during the classes. For example, you may be asked to identify a particular structure projected on the microscope, etc. The test scale will be approximately: 4.0 - 95%, 3.0 - 75%, 2.0 - 55%, 1.0 - 35% but is subject to change depending on the overall performance of the class. Actual scale will be announced after each test. Tests will be graded and returned quickly. Grading disagreements should be submitted in writing, along with your copy of the test. I will make a decision, based on the logic of your argument. The grading machine is very accurate, but you wont receive credit in the case of your poor erasure; therefore, work out your answers completely on the question sheet (which you may write on and keep), and only then transfer them to the answer sheet. If a class is cancelled for any reason, the whole schedule - including tests - will be set back a day, at least temporarily.

Plagiarism / Working Together

While I encourage students to work together, this does not mean that I encourage students to "divide and conquer". By that I mean you should not decide to each do half of the project and then exchange halves. You should do your own work on all projects. In writing, if you copy a thought or idea from a source (your text, a journal, whatever) you need to give the original author credit. If it is a direct quote you need to use quotation marks to indicate this.

Handouts/Class Related Materials
If you miss class, any handouts or notes provided will be in my office/lab. In addition, I have designed a website specifically dedicated for this course. PowerPoint presentations of the lectures and other relevant handouts will be made available for downloading from the website (http://www.oakland.edu/~lal/) soon after each lecture.

Learning Disabilities
If you require additional assistance due to a disability of any type, please contact me during my office hours. I will make every effort to accommodate your needs but I need to know about the issue up front. There are a variety of services on campus that can also provide assistance and additional help in areas such as reading and writing. I encourage you to seek these services out - either on your own or with my guidance. Please be assured that all discussions with me are in strict confidence.

Current Events: Botany/Biology News Items
If you see or hear of something that might be of interest to others in the class bring it to my attention and we can talk about it. I will post all of the items that are brought in on the wall outside my door (Dodge 346).

SYLLABUS (BIO 311 - Fall, 2003. Lal)

DATE		TEXT CHAPTERS	
• September	4	Chapter 1:	An Introduction to Plants and Their Study
• September	9	Chapter 2:	The Ecology and Natural Selection of Plants
• September	11	Chapter 3:	Energy and Cell Chemistry
• September	16	Chapter 4:	Plant Cells and Tissues
• September	18	Exam 1	(Chapter1-4 and lab.)
• September	23	Chapter 5:	DNA, Genes, and Cell Division
• September	25	Chapter 6:	Plant Growth and Development
• September	30	Chapter 7:	Root systems and Plant Mineral Nutrition
• October	2	Chapter 8:	Stems and Secondary Growth
• October	7	Chapter 9:	Leaves and the Movement of Water
• October	9	Chapter 12:	Flowers and Fruits
• October	14	Exam 2	(Chapters 5-9 and 12 and lab)
• October	16	Chapter 15:	The Diversity and Classification of Plants
• October	21	Chapter 16:	Bacteria, Fungi and Algae
• October	23	Chapter 16:	Bacteria, Fungi and Algae. (contd)
• October	28	Chapter 16:	Bacteria, Fungi and Algae. (contd)
• October	30	Chapter 17:	Bryophytes and Ferns: The seedless Plants
• November	4	Chapter 17:	Bryophytes and Ferns: The seedless Plants (contd)
• November	6	Exam 3	(Chapter 15-17 and lab.)
• November	11	Chapter 18:	Gymnosperms and Angiosperms: The seed Plants
• November	13	Chapter 16:	Gymnosperms and Angiosperms: The seed Plants (contd.)
• November	18	Chapter 19:	Ecology
• November	20	Chapter 19:	Ecology (contd.)
• November	25	Chapter 14:	Evolution

THANKSGIVING RECESS (27th November – 30th December) !!!

• December	2	Appendix	(introduction to plant genetic engineering)
• December	9	Special Topic	(GMO and its impact)
• December	10	Final Exams Begin (Ours TBA)	