Course Goal and Objectives: Through descriptions of some of the most interesting phenomena involving natural products, this course will provide the foundations of the natural product sciences, including ethnobotanical uses of plants, ecological interactions and contemporary drug screening programs, and will increase awareness of the pervasiveness of natural products in pharmaceutical products. Students will gain knowledge of specific natural products of special note for their pharmaceutical or ecological value, and will integrate various scientific disciplines such as organic chemistry, pharmaceutical chemistry, pharmacology, ecology and the drug discovery process.

There will be two planned but optional field trips (tide pool exploration, desert garden walk). Dates and times for these to be determined.

Lecture Schedule (Topic/Date)

1. Introduction and Overview of Methods in Natural Products Chemistry  
   (note - there will be no class in the first week of the SSPPS curriculum, as the SSPPS Spring quarter starts a week earlier than the rest of campus)  
   April 4

2. Traditional Natural Product Pharmaceuticals from Plants  
   April 11

3. Marine natural products and drug discovery – 1  
   April 18

4. Marine natural products and drug discovery – 2  
   April 25

5. The natural products of fungi and lower plants  
   May 2

6. Ethnobotany from around the world  
   May 9

7. The natural products of desert plants and cacti  
   May 16

8. Semiochemistry – the art and science of smell  
   May 23

9. Herbal natural products, functional foods and cosmeceuticals  
   May 30

10. Student presentations will be the week of May 29 at a time To Be Determined that works for all student schedules

There will not be a Final Exam in this course, but rather, 3 Quizes given during the quarter.
Methods of Student Assessment

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 quizzes</td>
<td>33 pts</td>
</tr>
<tr>
<td>Term paper</td>
<td>33 pts</td>
</tr>
<tr>
<td>Presentation</td>
<td>18 pts</td>
</tr>
<tr>
<td>Attendance and participation</td>
<td>16 pts</td>
</tr>
<tr>
<td>Total</td>
<td>100 pts</td>
</tr>
</tbody>
</table>

Grading is S/U; > 70% will achieve a Satisfactory Grade

Text

There is no course text, however, primary research papers and review papers will be assigned and distributed in class and by email.

Course Instructor

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858-534-0578