Location: GMCS 217

Instructors:
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Course Catalog Description:
Skills and knowledge needed for success in chemistry graduate program to include techniques for successful teaching, key safety protocols, ethical issues in teaching and research, department research programs, effective means of finding and communicating chemical information.

Scope and Purpose:
This class is designed for new graduate students and will cover teaching strategies, lab safety, ethics in science, searching for chemical information, useful software, and tips for presenting and manuscript writing. It will also include presentations of SDSU Chemistry faculty on their research.

Office Hours: e-mail Theresa or Christal for an appointment

Course Information: Available on Blackboard

Grading:
Class and seminar attendance, participation 100 Points
Make a CV (Due 9/25) 100 Points
TA/Lab skills 100 Points
NSF proposal (Due 12/1) 200 Points
Total 500 Points

Grading Scale:
320-350 = A
300-320 = A-
280-300 = B+
260-280 = B
240-260 = B-
230-250 = C+
200-230 = C
100-200 = D
0-100 = F

Students with Disabilities:
If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services (SDS) at (619) 594-6473. To avoid any delay in the receipt of your accommodations, contact SDS as soon as possible. Please note that accommodations are not retroactive, and that accommodations cannot be provided until you have presented your instructor with an accommodation letter from SDS. Your cooperation is appreciated.
<table>
<thead>
<tr>
<th>Lecture</th>
<th>Date/Time</th>
<th>Topic(s)</th>
<th>Location</th>
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<tr>
<td>1</td>
<td>8/22 2-4 pm</td>
<td>Panel discussion, TA exercises (Carlson)</td>
<td>GMCS 217</td>
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<td>2</td>
<td>8/23 9 am -12 pm</td>
<td>TA exercises (Carlson)</td>
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<td>3</td>
<td>8/24 2-4 pm</td>
<td>TA exercises (Carlson)</td>
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<td>4</td>
<td>8/28 3 – 5 pm</td>
<td>Group Selection; Presentations</td>
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<td>5</td>
<td>8/30 3 – 5 pm</td>
<td>Lydia Wood (UAW rep); Lab Record Keeping; Writing papers</td>
<td>GMCS 217</td>
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<td>6</td>
<td>9/4</td>
<td><strong>Labor Day, no classes!</strong></td>
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<td>7</td>
<td>9/6 3 – 5 pm</td>
<td>Writing grant proposals; Making a CV</td>
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<td>8</td>
<td>9/11 3 – 5 pm</td>
<td>Ethics</td>
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<td>9</td>
<td>9/13 3 – 5 pm</td>
<td>Research presentations by faculty</td>
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<td>10</td>
<td>9/18 3 – 5 pm</td>
<td>Research presentations by faculty</td>
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<td>11</td>
<td>9/20 3 – 5 pm</td>
<td>Research presentations by faculty</td>
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<td>12</td>
<td>9/25 3 – 5 pm</td>
<td>Research presentations by faculty</td>
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<td><strong>CV due 9/25</strong></td>
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<td>13</td>
<td>9/27 3 – 5 pm</td>
<td>Research presentations by faculty</td>
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<td>14</td>
<td>10/2 3 – 5 pm</td>
<td>Computer Resources (Pymol, Pubmed)</td>
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<td>15</td>
<td>10/4 3 – 5 pm</td>
<td>Science Careers myIDP; Networking in San Diego</td>
<td>GMCS 217</td>
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**Student Outcomes**
Upon completion of this course students will be able to:
1) Teach undergraduates successfully in laboratories.
2) Perform safely in a laboratory both as a student and as a researcher.
3) Evaluate ethical situations associated with research and know the appropriate steps to take in order to maintain high ethical standards.
4) Be knowledgeable of the diversity of research within the department in order to make an appropriate choice of research for their graduate study.
5) Search efficiently for the chemical information they will need for their course and research work.
6) Use popular chemistry software.

**Textbook (required):**

**Other resources:**
- [http://tlt.psu.edu/plagiarism/student-tutorial/](http://tlt.psu.edu/plagiarism/student-tutorial/)
- [http://www.sciencegeek.net/Chemistry/chemware/chemware.shtml](http://www.sciencegeek.net/Chemistry/chemware/chemware.shtml)
- [http://bionumbers.hms.harvard.edu/](http://bionumbers.hms.harvard.edu/)
- [https://pymol.org/edu/?q=educational/](https://pymol.org/edu/?q=educational/)