<table>
<thead>
<tr>
<th>Date</th>
<th>Seminar Title</th>
<th>Speakers</th>
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<tbody>
<tr>
<td>Jan 29</td>
<td>Course Overview</td>
<td>Dr. Mike Carney</td>
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<tr>
<td>Feb 5</td>
<td>Resume Preparation</td>
<td>Staci Heidtke, Career Services</td>
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<tr>
<td>Feb 10 (W)</td>
<td>Internship Mania (10 am-3 pm) Davies Center</td>
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<tr>
<td>Feb 12</td>
<td>&quot;Better Careers Through Chemistry&quot;</td>
<td>Heather Doughty (Chem-Bus), Print Specialist</td>
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<td></td>
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<td>Kristin Remer (Chem-Bus), Business Sourcing Manager</td>
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<td></td>
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<td>David Hoelzel (Chem-Bus), Supply Chain Specialist</td>
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<td></td>
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<td>3M, Minneapolis, MN</td>
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<tr>
<td>Feb 19</td>
<td>NO CLASS MEETING</td>
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<tr>
<td>Feb 26</td>
<td>Cover Letter Preparation</td>
<td>Staci Heidtke, Career Services</td>
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<tr>
<td>Mar 5</td>
<td>&quot;A Look at the CRO Industry&quot;</td>
<td>Josh Stangl (Chem-Bus), Study Coordinator</td>
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<td>Covance Laboratories, Madison, WI</td>
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<tr>
<td>Mar 12</td>
<td>&quot;We Are in the Bubble Business&quot;</td>
<td>Mark Hungarland (Biol), Sales Director</td>
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<td>Colin Crimmins (Chem-Bus), Global Inventory Manager</td>
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<td>Stepan Company, Northfield, IL</td>
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<td>WinField Solutions, River Falls, WI</td>
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<td>Mar 26</td>
<td>Spring Break</td>
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<td>Apr 2</td>
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<td>No seminars</td>
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<tr>
<td>Apr 9</td>
<td>&quot;Careers in Chemical Distribution&quot;</td>
<td>Amber Hayward (Chem-Bus), Customer Service Manager</td>
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<td>Kaitlin Stein (Chem-Bus), Sales Representative</td>
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<td>Amanda Thrasher (Chem-Bus), Customer Service Representative</td>
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<td>Lesley A. Burchett (Chem-Bus), Regional Product Manager</td>
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<td>Brenntag Great Lakes, Milwaukee, WI</td>
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<td>Apr 16</td>
<td>&quot;Cayman Chemical and a Route to Drug Discovery&quot;</td>
<td>Fred Ciske (Chem), Chemist</td>
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<td>Cayman Chemical, Ann Arbor, MI</td>
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<tr>
<td>Apr 23</td>
<td>&quot;The Evolving Automotive Industry and PPG Industries&quot;</td>
<td>Matt Marek (Chem-Bus), General Manager-Automotive Coatings</td>
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<td>PPG Industries, Pittsburgh, PA</td>
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<tr>
<td>Apr 30</td>
<td>&quot;One Chemist's Odyssey or Life Beyond the Lab&quot;</td>
<td>Dr. Steve Ely, Capital Projects and Business Manager, Retired</td>
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<td>BP, Chicago, IL</td>
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<tr>
<td>May 7</td>
<td>&quot;A Science Degree...So Now What?&quot;</td>
<td>Wally Danielson (Chem-Bus), President and CEO</td>
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<td>Impres Medical, Edina, MN</td>
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<tr>
<td>May 14</td>
<td>Student Posters</td>
<td>Poster Presentation and Evaluation</td>
</tr>
<tr>
<td>May 19 (W)</td>
<td>Student Posters 1 PM</td>
<td>Poster Presentation and Evaluation - Course Evaluation</td>
</tr>
</tbody>
</table>
I. INSTRUCTOR
Dr. Michael Carney
Phillips 453
836-3500
carneymj@uwec.edu
Course Website: www.uwec.edu/carneymj/Chem274.htm
Check your e-mail often for course updates

II. CLASS ATTENDANCE
Attendance will be taken. Students are required to attend all outside speaker seminars to pass the course. Only in emergencies can you miss these, and the absence must be explained to the satisfaction of the instructor. Only then will a makeup be considered, and the makeup assignment will be lengthy. Missing days when other students present their posters will lower the score on your poster by 10 points.

III. GRADING
Attendance at Outside Speaker Presentations (9 x 10)  90 points
Reports on Speaker Interviews (2 x 15)  30
Resume and Cover Letter  50
Chemical Report  40
Poster  40
Total = 250 points
Points will be subtracted for late assignments at a rate of 10% of the assignment’s value per day that it is late.

IV. TEXTBOOK

V. GOALS OF THE BACCALAUREATE
This course is intended to address the following University Learning Goals:
- Knowledge of Human Culture and the Natural World
- Creative and Critical Thinking
- Effective Communication

VI. DETAILS OF ASSIGNMENTS
Students will attend seminar presentations, prepare a resume, write short reports and give an oral presentation. Details are given below.

A. Attendance at Outside Speaker Presentations
All students are required to attend each seminar by an outside speaker. Attendance will be taken. See the notes under Class Attendance if a presentation is missed.

B. Speaker Interview Reports
Each student is required to interview two of the visiting speakers. A 2-3 page interview summary must be submitted no later than the Friday following the talk. Both grammar and content will be evaluated. Be sure to put your name and the speaker’s name at the top of the report. Prior to the interview, each student should prepare a list of questions to ask. Interview topics might include the following:
1. What are the career opportunities in the speaker’s field?
2. How did the speaker come to his/her current position?
3. What advice would the speaker give on seeking that first job?
4. What might be a reasonable starting level of compensation in today’s job
5. What level of compensation might one expect in three to five years into the future?

6. What are the main attributes that employers seek in a new employee?

7. What is the greatest difficulty the speaker encountered in his/her early career?

Obviously there is no limit to the questions one could ask. Be creative! In order to expedite efficient student-speaker interactions, each student will sign up for a preferred interview. **Interview times are 1:00-1:45 or 2:00-2:45 pm.** In addition, all students are invited to meet with the speaker during a free pizza lunch from 11:30-12:00 noon in room P-401.

C. **Resume and Cover Letter**
Students will prepare their own 1-2 page resume and a one page cover letter. Ms. Staci Heidtke of Career Services will cover the essentials of resume and cover letter preparation on Feb. 5 and Feb. 26. Your cover letter must be written in response to a particular job posting that you find interesting (search the web, consult Career Services, etc.). The resume and cover letter will be due on Fri., March 19. Students are encouraged to have their resumes reviewed by student assistants in Career Services (Schofield 226) before turning in the final product. This assistance and feedback is designed so that you can leave UWEC with an effective resume.

D. **Chemical Report**
Each student will write a short report on **one chemical from the list of the Second 50 Industrial Chemicals (Chapter 13).** Check the reference books and periodicals below to find additional information concerning the chemical. The chemical report should be no more than five (5) pages. Both grammar and content will be graded. Include the following points in your chemical report, but not necessarily in this specific order:

1. Manufacturing process, including a schematic outline and the chemical reactions occurring during manufacture
2. Physical and chemical properties of the chemical
3. Key derivatives or end uses of the chemical
4. Economic aspects of its production and use, including major manufacturers, price, volume, and market future. Use up-to-date data for this section as much as possible.
5. Any emerging technologies that will impact the chemical’s manufacture or use
6. Any pollution or toxicological problems associated with manufacture and use of the chemical

The last section of your report will be a list of references. The format of the references may vary, but do include complete references and be sure to cite the reference at the point of use in your paper. These reports are due on Friday, May 7.

E. **Poster Presentation**
Each student will present a poster on their chosen chemical. The poster should cover all important aspects of your written report. You are encouraged to use PowerPoint or other presentation software to assemble your poster. Figures, diagrams and tables are useful ways of presenting information in a poster format, rather than lots of text. Your poster should be assembled so that viewers of your poster can follow and understand the material on their own. Of course, you will be present in case questions come up. **The instructor and your classmates will evaluate your poster, including how well you answer questions.** Poster sessions are scheduled during the last week of class and during our final exam time (see Course Outline).
VII. REFERENCES

A. Reference books in the library:


B. Library reference books (first floor of library):


*Ullmann’s Encyclopedia of Industrial Chemistry*, TP9.U57 1985 reference. Another multi-volume work that contains useful chemical information, however it is now somewhat dated. We have all 28 volumes (A-Z). There is also an index.

*Chemical Economics Handbook*, HD9650.01.S54 reference. Contains 38 volumes of economic data on chemicals, chemical products, and allied products industries. Volume 1 is the index.

Bennett’s *The Chemical Formulary*, TP151.B35 reference. 31 volumes.

C. Periodical Indices (first floor of library):

To search these important indices, go to [http://wilsonweb2.hwwilson.com](http://wilsonweb2.hwwilson.com)

Then click on “Applied Science Full Text” and “General Science Full Text.” You can also click on “Reader’s Guide Full Text.” Then click Search or Search Plus. Type a word or phrase and click on Search Now. You will get a list of articles with references. Some may have to be ordered through interlibrary loan. Some can be found in our periodical stacks (second floor of library).

*Applied Science and Technology Index*. Hard copies are on Index Table 4B and cover up to 1995. This index can be searched on the Web. See above.

*General Science Index*. Hard copies are on Index Table 4B and cover up to 1998. This index can be searched on the Web. See above.

*Reader's Guide to Periodical Literature*. Hard copies are on Index Table 4B and cover up to 1997. This index can be searched on the Web. See above.

D. Periodicals (second floor of library):
1. Chemical Market Reporter. Weekly prices for many important chemicals are given in this newspaper.

2. Chemical Week. A very useful weekly publication that highlights recent trends and news in the chemical industry, including current prices for selected commodity chemicals.

3. Chemical and Engineering News. Membership in the American Chemical Society is strongly recommended and this periodical is part of the membership. If you are a chemist you should be reading this every week. An annual index is available in our library. C & E News can also be searched online at http://pubs.acs.org/cen/search.html

4. CHEMTECH

E. Government Documents (first floor of the library):


F. Internet Resources

ChemExpo is the chemical industry’s source for over 20,000 chemicals, latest news, chemical profiles, business briefs, a directory of chemical products and companies, forums, a calendar of events, a business card exchange, and a column on people and jobs. http://www.chemexpo.com

Chemistry and Industry magazine has a web site that contains news and features from the current issue, plus hundreds of articles from past issues. It has a searchable database of jobs in chemistry, a list of meetings, and daily science news. http://www.chemind.org

The Chemical Industry Home Page gives information on chemical industry associates, management resources, chemical company websites, and chemical sales resources. You can type in a subject and search the whole chemical industry http://www.neis.com

The Council on Chemical Research has a homepage that leads to various kinds of lecture material on chemistry and chemical engineering which have an industrial perspective. http://www.udel.edu/ccr/


ACS Information can be obtained easily and covers a multitude of information on chemistry, chemists, chemical education, and the chemical industry. Online chemistry publications, scientific databases, a job bank, information on ACS meetings, and educational materials are just a few features. http://www.acs.org/

Over 750 homepages of chemical companies can be linked from an alphabetical list at one homepage. http://www.chemie.de/firmen/e/

A searchable hazardous chemicals database is available from the University of Akron. http://ull.chemistry.uakron.edu/erd/
Material Safety Data Sheets contain health and safety information on thousands of chemicals. These are available at a number of locations. Some of the sites are alphabetical by chemical name. Some allow the user to key in a chemical name. Some will link you to many other MSDS sites. Here are a few locations.

Vermont Safety Information  http://hazard.com/
Denison University http://www.denison.edu/sec-safe/safety/msdsres.html

Pesticide information is available on the Extoxnet.
http://ace.orst.edu/info/extoxnet

Chemfinder gives information and manufacturers for any searched chemical.
http://chemfinder.camsoft.com

A list of the Top 200 Prescription Drugs in the U. S. is available.
http://www.rxlist.com/top200.htm
Course Objectives: 

1. Become more proficient in the ability to use scientific terminology; name and write chemical formulas for inorganic compounds: binary nonmetal compounds, salts, acids and bases; write and classify chemical equations for elementary chemical reactions and perform stoichiometric calculations involving chemical reactions. 

While there are several reviews on the biological and pharmacological effects of curcumin, chemistry reviews are comparatively scarcer. In this article, an overview of different aspects of the unique chemistry research on curcumin will be discussed. These include methods for the extraction from turmeric, laboratory synthesis methods, chemical and photochemical degradation and the chemistry behind its metabolism. Additionally other chemical reactions that have biological relevance like nucleophilic.