SLHS 596B PHARMACOLOGY FOR AUDIOLOGISTS
WEB-BASED

Description of Course
The purpose of this course is to provide Au.D. students with readings and assignments to facilitate learning about 1) introductory concepts of pharmacology; 2) commonly used drugs and their effect on patient hearing, balance, emotional, physical and cognitive function; 3) ototoxicity.

Instructor and Contact Information
Barbara Cone, Ph.D., SLHS 518, 520-626-3710, conewess@email.arizona.edu
Office Hours Wednesdays 1:30-3:30 p.m. or by appointment. I have an open door policy when I am in my office, so feel free to stop by, too.
This course has a web-page on D2L, which you can access through your UA net login.

Course Format and Teaching Methods
The course is a web-based directed readings format, with required readings, writing assignments, and on-line discussion. A term paper is required, on a pharmacology-related topic of your choice, and this will require prior approval by the instructor.

Course Objectives and Expected Learning Outcomes
Learner Outcomes
1. Discuss biochemical bases of hearing and mechanisms of ototoxicity
2. Provide an operational definition of pharmacology, pharmacodynamics and pharmacokinetics.
3. List common classes of drugs used in otolaryngologic practice.
4. List common drugs used in cancer treatment that are ototoxic.
5. List aminoglycosides that are ototoxic, and describe genetic determinants of aminoglycoside ototoxicity
6. Describe mechanisms of renal function and the ototoxicity of loop diuretics
7. List industrial/environmental chemicals and solvents affecting the auditory system.
8. List otoprotective agents and describe their mechanisms and effectiveness.
9. Describe and critically assess protocols for ototoxic monitoring.
10. Describe and audiologic management for those exposed to and affected by ototoxicity.

Absence and Class Participation Policy
The UA’s policy concerning Class Attendance, Participation, and Administrative Drops is available at: http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, http://policy.arizona.edu/human-resources/religious-accommodation-policy.
Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. See: https://deanofstudents.arizona.edu/absences

**Required Texts or Readings**

The required text is:


There will also be journal articles and book chapters available on D2L that are required reading.

**Assignments and Examinations: Schedule/Due Dates**

There will be 3 written assignments on the assigned readings, each worth 15% of your grade. These will be time-limited. The dates for these are included on the time-table, below

There will be 3 on-line discussions for which you must respond during a designated time period, each is worth 5% of your grade. The dates for these are included on the time-table below.

There will be a required final paper worth 40% of your grade.

The topic for the paper will be submitted by Feb.15, for approval by the instructor.

An outline and an initial bibliography are due on March 29th for review by the instructor.

**The paper is due on May 1, 2017.**

**Final Examination or Project**

There is no final examination. **Your term paper is due on 1 May, 2017.**

**Grading Scale and Policies**

Your grade will be based upon the number of points earned:

- 90-100% = A
- 80-89% = B
- 70-79% = C
- 60-69% = D
- Below 60% is F.

**Requests for incomplete (I) or withdrawal (W)** must be made in accordance with University policies, which are available at [http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete](http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete) and [http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal](http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal) respectively.
Scheduled Topics/Activities
Textbook readings abbreviated “POA” (Pharmacology and Ototoxicity for Audiologists. There are also required readings on D2L for which you will receive e-mail alerts.

<table>
<thead>
<tr>
<th>Date</th>
<th>Week</th>
<th>Topic</th>
<th>Reading</th>
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<tbody>
<tr>
<td>Jan 11</td>
<td>1</td>
<td>Biochemical bases of hearing, mechanisms of ototoxicity</td>
<td>POA Ch. 8, Ch. 7</td>
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<tr>
<td>Jan 18</td>
<td>2</td>
<td>Intro to pharmacology, pharmacodynamics, and pharmacokinetics</td>
<td>POA Ch. 1, 2, 3</td>
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<tr>
<td>Jan 25</td>
<td>3</td>
<td>Common drugs used in otolaryngologic practice</td>
<td>POA Ch. 5</td>
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<td>Feb 1</td>
<td>4</td>
<td>Aminoglycoside Antibiotics</td>
<td>POA Ch. 11</td>
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<td>Feb 8</td>
<td>5</td>
<td>Cancer and ototoxicity of cancer therapeutics</td>
<td>POA Ch. 10</td>
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<td>Feb 15</td>
<td>6</td>
<td>Renal function and ototoxicity of loop diuretics</td>
<td>POA Ch. 12</td>
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<td>Mar 1</td>
<td>8</td>
<td>Vestibular otoxicity</td>
<td>POA Ch. 17, 18</td>
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<td>Mar 8</td>
<td>9</td>
<td>Industrial chemicals and solvents</td>
<td>POA Ch. 14</td>
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<td>Mar 15</td>
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<td>Spring Break</td>
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<td>Mar 22</td>
<td>10</td>
<td>Oto-protective agents</td>
<td>POA Ch. 13</td>
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<td>Mar 29</td>
<td>11</td>
<td>Drugs for Alzheimer’s, drugs for cognitive performance</td>
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<td>Outline of paper and draft of bibliography due this week</td>
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<td>Apr 5</td>
<td>12</td>
<td>Audiologic monitoring for ototoxicity I</td>
<td>POA Ch. 16</td>
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<tr>
<td>Apr 12</td>
<td>13</td>
<td>Audiologic monitoring for ototoxicity II</td>
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<td>(On-line discussion 3 this week).</td>
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<td>Apr 19</td>
<td>14</td>
<td>Audiologic management for ototoxicity</td>
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<td>(On-line assignment 3 given this week.)</td>
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<td>Apr 26</td>
<td>15</td>
<td>Work on Term Paper</td>
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TERM PAPER DUE ON MONDAY, MAY 1, 2017.
Threatening Behavior Policy
The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students.

Accessibility and Accommodations
Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional information on the Disability Resource Center and reasonable accommodations, please visit http://drc.arizona.edu.

If you have reasonable accommodations, please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

Code of Academic Integrity
Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity.

The University Libraries have some excellent tips for avoiding plagiarism, available at http://www.library.arizona.edu/help/tutorials/plagiarism/index.html.

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor’s express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

UA Nondiscrimination and Anti-harassment Policy
The University is committed to creating and maintaining an environment free of discrimination; see http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy.

Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

Additional Resources for Students
UA Academic policies and procedures are available at http://catalog.arizona.edu/policies

Student Assistance and Advocacy information is available at http://deanofstudents.arizona.edu/student-assistance/students/student-assistance

Confidentiality of Student Records

Subject to Change Statement
Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.