SEMINAR ON COCHLEAR IMPLANTS AND TECHNOLOGY
FOR PERSONS WITH HEARING IMPAIRMENTS
ACN 7324/ AUD 7324/ COMD 7324, FALL 2016

Course Information
Time: Thursdays, 12:30 p.m. – 3:15 p.m.
Location: Callier 1.212
Course Credits: 3

Professor Contact Information
Instructor: Andrea Warner-Czyz, Ph.D.
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Office Hours: By appointment

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Office hours: By appointment

Course Description
This course will explore the many different areas and issues related to cochlear implantation. Topics to be covered include signal processing, candidacy determination, medical considerations, steps in programming, audiologic (re)habilitation techniques, ethical issues, and speech perception and speech production outcomes in children and adults. Information will be presented and learned through lectures, guest speakers, video presentations, hands-on activities, assignments, and interactions with users of cochlear implants. Future technologies and assistive devices will be discussed. This course is intended to be an interactive course, with regular student participation.

This course is designed with an emphasis on independent critical thinking and learning activities.

Student Learning Objectives/Outcomes
1. Students will be able to list the criteria for consideration for cochlear implantation in both adults and children. They will demonstrate ability to perform pre- and post-cochlear implantation evaluations and select appropriate test batteries, rehabilitative, and treatment options (Standard IV-E).
2. Students will discuss the types and use of FDA-approved cochlear implant devices (Standard IV-E).
3. Students will analyze controversial issues such as Deaf Culture and their role in cochlear implantations (Standard IV-E).

For Doctorate of Audiology students, this class will provide knowledge relevant to your certification in audiology in the following areas:

1. Standard IV-A, Sections B3, B4, B5, B6, B9, B11, B13, B15, B16, B17, and B21.
2. Standard IV-C, Section C3. The applicant must be competent in the prevention and identification of auditory and vestibular disorders.
3. Standard IV-D, Sections D2, D3, D7, D8, D10, and D11. The applicant must be competent in the evaluation of individuals with suspected disorders of the auditory, balance, and communication systems.
**Required Textbooks and Materials**
Required and supplemental readings will be posted online at eLearning or made available for students to photocopy or print online. The readings are meant to supplement and expand upon information presented in class and must be read to complete the course’s annotated bibliography requirement.

**Recommended Course Materials**

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**Assignments & Academic Calendar**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>08/25/2016</td>
<td>Basics of cochlear implants</td>
</tr>
<tr>
<td>09/01/2016</td>
<td>Cochlear implant candidacy; Deaf culture</td>
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<tr>
<td>09/08/2016</td>
<td>Cochlear implant signal processing</td>
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<tr>
<td>09/15/2016</td>
<td>Signal processing (reprise); Programming and follow-up in CI</td>
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<tr>
<td>09/22/2016</td>
<td>Surgical Considerations and the CI team</td>
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<tr>
<td>09/29/2016</td>
<td>Speech perception</td>
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<td></td>
<td><em>Provide take-home exam</em></td>
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<tr>
<td>10/06/2016</td>
<td>Cochlear implant configurations (unilateral, bilateral, bimodal, electroacoustic stimulation (EAS)</td>
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<tr>
<td></td>
<td><em>Take-home exam due</em></td>
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<tr>
<td>10/13/2016</td>
<td>No class - Clarke symposium</td>
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<tr>
<td>10/20/2016</td>
<td>Music perception and appreciation</td>
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<tr>
<td></td>
<td><em>Audiology online courses due</em></td>
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<tr>
<td>10/27/2016</td>
<td>Speech, language, and literacy</td>
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<tr>
<td>11/03/2016</td>
<td>Auditory-Verbal Therapy; FM systems and educational options</td>
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<td></td>
<td><em>CI-related session papers due</em></td>
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<tr>
<td>11/10/2016</td>
<td>Special applications of CI technology and special populations</td>
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<tr>
<td>11/17/2016</td>
<td>Quality of life</td>
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<tr>
<td></td>
<td><em>Educational audiology project due</em></td>
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<tr>
<td>11/24/2016</td>
<td>No class – Thanksgiving</td>
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<tr>
<td>12/01/2016</td>
<td>Group presentations</td>
</tr>
<tr>
<td>TBD</td>
<td>Final exam*</td>
</tr>
</tbody>
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**Readings**

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Basics of cochlear implants

Cochlear implant candidacy

Deaf Culture
NAD position statement on cochlear implants (2000).

Cochlear implant signal processing

Programming and follow-up

Surgical considerations and the CI team

Speech perception


**Cochlear implant configurations**


**Music perception and appreciation**


**Speech, language, and literacy**


**Auditory-verbal therapy, FM systems, and educational options**


**FM reading**

US Department of Education (2015). Deaf students education services. [http://www2.ed.gov/about/offices/list/ocr/docs/hq9806.html](http://www2.ed.gov/about/offices/list/ocr/docs/hq9806.html)

**Quality of Life**


**Special populations and special applications**

Grading Policy

Exams (500 points, 50%)
The real value of a test is the preparation, learning, and critical thinking ability that develops out of preparing for a test. The tests are designed with an eye toward everyday clinical decision making. There will be two exams. The format will be a combination of the following: Multiple choice, true/false, matching, labeling diagrams, fill-in-the-blank, short answer, short essay, and application (i.e., case studies). The midterm exam will be a take-home test worth 200 points of your grade. The final exam will be taken at the testing center on main campus and will constitute 300 points of your grade.

Group project and presentation (150 points, 15%)
The class will be divided into small groups (2-4 students each) to select a topic to research. Create a two-page handout, brochure, or newsletter including information about candidacy, considerations, expectations for speech perception, speech and language, quality of life, etc., and resources for one of the age groups listed below. We are open to other topics; just clear with the instructors ahead of time. Present a 15-minute class lecture with a 5-minute question and answer period. Due 12/01/2016.

- Transitioning to employment with cochlear implants
- Cochlear implant camps
- Dating with cochlear implant
- Alerting devices for cochlear implants
- Cultural aspects with cochlear implants
- ADA
- Engaging children in self-advocacy (age-related changes)

Individual projects (250 points, 25%)
The purpose of these assignments is to allow students to think critically and independently on cochlear implants outside of class and to share this information with others. Each project should be the original work of the student. Copying and pasting large amounts of information from other sources will not be accepted. Small quotes from other sources of information, with proper citations, are acceptable. All postings must include proper grammar, spelling, punctuation, language, and a clear organization of thoughts. Links to outside sources and images may be included.

- Written assignments (100 points, 10%). Each week on eLearning, I will provide you written assignments that should be submitted to me via email by noon on Mondays. I will return your graded responses at the beginning of each class so your thoughts and responses can form the basis of class discussion. Each of these assignments will be based on your course readings. I will ask you to attend carefully to certain aspects of the paper(s) on which I want you to focus. Your goal is not to memorize the content of these articles, but to understand their importance to the field of cochlear implants.

- Audiology Online courses (50 points, 5%). Complete 2 recorded, live, or text-based courses on Audiology Online (http://www.audiologyonline.com) related to cochlear implants. One of these courses must relate to counseling individuals with cochlear implants; the other can cover a topic related to your specific interests (e.g., music, binaural hearing, therapy). Complete the multiple choice tests at the end of each course. Print these tests to show completion and passing scores. Also, please write a short summary (one paragraph) of the Audiology Online course plus a paragraph detailing your impressions of the course and how you might use the information gained in future clinical practice. If you are unsure as to whether an offering on the Audiology Online website meets
the criteria for the assignment, please email the instructor before you begin the assignment. **Due 10/20/2016.**

- **Observe a cochlear implant-related session (50 points, 5%).** This could include watching cochlear implant surgery; observing speech-language therapy; viewing audiological testing and MAPping; attending a CI support group; etc. *If you want to watch a surgery, you need to begin arranging a time the first week of class.* Write a one-page summary about your experience. **Due 11/03/2016.**

- **Educational audiology (50 points, 5%).** You will detail eligibility criteria to receive services in school. Details about this project will be given in class. **Due 11/17/2016.**

**Participation (100 points, 10%)**
Participation in class discussions and activities are expected. Your participation grade will be based upon in-class participation, minute papers, summaries, etc. Active participation includes but is not limited to contributions to topic discussions, asking questions, answering questions, giving presentations, and making connections to other topics within the class, in other classes, or within the field. In-class activities may vary in style (chart, summary, list, etc.) and enhance understanding of topics by allowing students to explain ideas or concepts in their own words. These summaries also allow the instructor to determine topics requiring additional explanation.

**Final grade calculation**
Students’ grade will be calculated based on the following rubric:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>900-1,000</td>
</tr>
<tr>
<td>B</td>
<td>800-899</td>
</tr>
<tr>
<td>C</td>
<td>700-799</td>
</tr>
<tr>
<td>D</td>
<td>600-699</td>
</tr>
<tr>
<td>F</td>
<td>&lt;600</td>
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</tbody>
</table>

To ensure fairness, all values are absolute. The instructor will not round grades and will not employ a plus/minus grading system.

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**Course & Instructor Policies**

**Lectures.** Regular attendance and active participation in discussion are strongly encouraged. Some lectures cover material in the readings, but most present supplementary material. No copies of instructional materials delivered in class will be provided for students who choose not to attend.

**Make-up assignments.** Make-up assignments or additional assignments for extra credit will be given in the event of student absence from the class that cannot be documented as an emergency or death in the family.

**Digital etiquette.** Please turn off ring-tones and other audible alerts on cell phones before class begins. Students may use technology during class to take notes or accomplish tasks pertaining to class discussion. However, abuse of technology during class time (e.g., texting, checking email, social media, etc.) is unacceptable and will result in revoking the student’s privilege to use technology for the remainder of the semester in this course.

**Per the AuD program handbook,** C grades (including C+ or poorer) do not demonstrate adequate competency in the topic area and remediation or repetition of the course will be required; remediation/repetition plans require programmatic approval. *Remediation of content does not result in a grade change for the course; the only way to have a course grade changed on your transcript is to repeat the course.* You may be required to repeat coursework if your GPA does not meet University standards.
Per University policy: “If, at the end of a semester, a student’s cumulative grade point average is below 3.0, the student will be placed on academic probation. The student must earn sufficient grade points during the next two semesters of registration to raise the cumulative grade point average to at least 3.0 exclusive of incomplete (X) grades. Failure to achieve this 3.0 cumulative grade point average will result in immediate dismissal from the University. A student must have a GPA of at least 3.0 to be eligible to graduate with a master’s or doctoral degree.”

https://catalog.utdallas.edu/2015/graduate/policies/registration-and-enrollment#academic-good-standing

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar’s Grade Policy regulations at:
https://catalog.utdallas.edu/2015/graduate/policies/grades#grades-and-grade-point-average

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UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus. Please go to http://go.utdallas.edu/syllabus-policies for these policies.

Sharing Confidential Information

Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching/research assistants are required by UT Dallas policy to report information about sexual misconduct to the UT Dallas Title IX Coordinator. Per university policy, faculty have been informed that they must identify the student to the UT Dallas Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2527 or after hours 972-UTD-TALK or 972-883-8255), the Women's Center (972-883-8255), a health care provider in the Student Health Center (972-883-2747), the clergyperson (or other legally recognized religious advisor) of their choice, or an off-campus resource (i.e., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UT Dallas Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-2218. Additional information and resources may be found at http://www.utdallas.edu/oiec/title-ix/resources.

Campus Carry

The University's concealed handgun policy is posted on the campus carry website:
https://www.utdallas.edu/campuscarry/

Technical Support

If you experience any issues with your UT Dallas account, contact the UT Dallas Office of Information Technology Help Desk: assist@utdallas.edu or call 972-883-2911.
UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Helpdesk:

Field Trip Policies, Off-Campus Instruction and Course Activities

Off-campus, out-of-state, foreign instruction/travel, and course-related field trip activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Detailed information regarding this policy, in accordance to Texas Education Code, Section 51.950, can be accessed at the UT Dallas Policy Navigator, http://policy.utdallas.edu/utdbp3023, and at http://www.utdallas.edu/administration/insurance/travel. Additional information is available from the office of the school dean.
Student Conduct and Discipline
The University of Texas System (Regents' Rule 50101) and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UT Dallas online catalogs ([http://catalog.utdallas.edu](http://catalog.utdallas.edu)).

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Student Code of Conduct, UTDSP5003 ([http://policy.utdallas.edu/utdsp5003](http://policy.utdallas.edu/utdsp5003)). Copies of these rules and regulations are available to students in the Office of Community Standards and Conduct, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972-883-6391) and online at [https://www.utdallas.edu/conduct/](https://www.utdallas.edu/conduct/).

A student at the University neither loses their rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating its standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity
The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work. **Academic Dishonesty:** Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication, and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment. Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: [https://www.utdallas.edu/conduct/dishonesty/](https://www.utdallas.edu/conduct/dishonesty/).

Copyright Notice
It is the policy of the University of Texas at Dallas to adhere to the requirements of the United States Copyright Law of 1976, as amended, *(Title 17, United States Code)*, including ensuring that the restrictions that apply to the reproduction of software are adhered to and that the bounds of copying permissible under the fair use doctrine are not exceeded. Copying, displaying, reproducing, or distributing copyrighted material may infringe upon the copyright owner's rights. Unauthorized distribution of copyrighted material, including unauthorized peer-to-peer file sharing, may subject students to appropriate disciplinary action as well as civil and criminal penalties. Usage of such material is only appropriate when that usage constitutes “fair use” under the Copyright Act. For more information about the fair use exemption, see [http://copyright.lib.utexas.edu/copypol2.html](http://copyright.lib.utexas.edu/copypol2.html). As a UT Dallas student, you are required to follow UT Dallas’ copyright policy (UTDPP1043 at [http://policy.utdallas.edu/utdpp1043](http://policy.utdallas.edu/utdpp1043)) and the UT System’s policy, UTS107 at [http://www.utsystem.edu/board-of-regents/policy-library/policies/uts107-use-copyrighted-materials](http://www.utsystem.edu/board-of-regents/policy-library/policies/uts107-use-copyrighted-materials).

Email Use
The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. All official student email correspondence will be sent only to a student's UT Dallas email address and UT Dallas will only consider email requests originating from an official UT Dallas student email account. This allows the University to maintain a high degree of confidence in the identity of each individual's corresponding via email and the security of the transmitted information. The University of Texas at Dallas furnishes each student with a free email...
account that is to be used in all communication with university personnel. The Office of Information Technology provides a method for students to have their UT Dallas mail forwarded to other email accounts. To activate a student UT Dallas computer account and forward email to another account, go to http://netid.utdallas.edu.

Class Attendance
Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. Absences may lower a student's grade where class attendance and class participation are deemed essential by the instructor. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

Withdrawal from Class
The administration at UT Dallas has established deadlines for withdrawal from any course. These dates and times are published in the Comet Calendar (http://www.utdallas.edu/calendar) and in the Academic Calendar (http://www.utdallas.edu/academiccalendar). It is the student's responsibility to handle withdrawal requirements from any class. In other words, a professor or other instructor cannot drop or withdraw any student unless there is an administrative drop such as the following:

- Have not met the prerequisites for a specific course
- Have not satisfied the academic probationary requirements resulting in suspension
- Office of Community Standards and Conduct request
- Have not made appropriate tuition and fee payments
- Enrollment is in violation of academic policy
- Was not admitted for the term in which they registered

It is the student's responsibility to complete and submit the appropriate forms to the Registrar's Office and ensure that he or she will not receive a final grade of "F" in a course if he or she chooses not to attend the class after being enrolled.

Student Grievance Procedures
Procedures for student grievances are found in university policy UTDSP5005 (http://policy.utdallas.edu/utdsp5005). In attempting to resolve any student grievance regarding disputes over grades, application of degree plan, graduation/degree program requirements, and thesis/and dissertation committee, adviser actions and/or decisions, evaluations, and/or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originated.

Incomplete Grade Policy
As per university policy, incomplete grades may be given, at the discretion of the instructor of record for a course, when a student has completed at least 70% of the required course material but cannot complete all requirements by the end of the semester. An incomplete course grade (grade of 'I') must be completed within the time period specified by the instructor, not to exceed eight (8) weeks from the first day of the subsequent long semester. Upon completion of the required work, the symbol 'I' may be converted into a letter grade (A through F). If the grade of Incomplete is not removed by the end of the specified period, it will automatically be changed to F.

AccessAbility Services
It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with your professor and allow one week advance notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact OSA for a confidential
discussion. OSA is located in the Student Services Building, SSB 3.200. They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu.

**Religious Holy Days**
The University of Texas at Dallas will excuse a student from class or other required activities, including examinations and travel time for the observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, of the *Texas Tax Code*. Students are encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment.

Excused students will be allowed to take missed exams or complete assignments within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the President of UT Dallas or from the President's designee. The chief executive officer or designee must take into account the legislative intent of *Texas Education Code* 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

**Resources to Help You Succeed**
The Office of Student Success operates the Student Success Center (SSC, http://www.utdallas.edu/studentsuccess), which offers assistance to students in the areas of writing, mathematics, communication, multiple science fields, reading, study skills, and other academic disciplines. These services are available through individual and small group appointments, workshops, short courses, and a variety of online and instructional technologies. All students enrolled at UT Dallas are eligible for these services.

The **Math Lab** gives short-term and semester long support for a variety of introductory and advanced mathematics courses. Students may drop in to visit with a math tutor on a regular basis. Comet card is required.

The **Writing Center** offers a collaborative learning environment for one-to-one and small group assistance with general and advanced writing assignments and overall writing skills. Scheduling an appointment is strongly recommended, but walk in appointments are possible if a tutor is available.

The **Peer Tutoring** program offers free tutoring assistance in multiple locations for many of the historically challenging undergraduate subjects at UT Dallas. Tutoring sessions, offered every weekday on a drop-in basis, are one-on-one or in a small group format. The sessions are designed to meet students’ individual questions and needs related to course/subject concepts. All peer tutors are current UT Dallas students who made an A- or better in the course and have a strong faculty/staff recommendation. Students should check the Student Success Center website each semester for subject offerings and session times.

The **Peer-Led Team Learning (PLTL)** program provides an active, engaged learning experience for students who meet in small groups once a week with a Peer Leader who helps guide them through a potentially difficult gateway course. Students that attend sessions regularly typically earn a half to a whole letter grade higher than students that do not participate in the PLTL program.

**Supplemental Instruction (SI)** provides free, peer-facilitated weekly study sessions for students taking historically difficult courses. SI sessions encourage active, collaborative learning based on critical thinking and transferable study skills. SI leaders attend lectures, take notes, and read assigned material just like the enrolled students. Students should check the SSC website for subject and session times.

The **Communication Lab (CommLab)** offers one-on-one and group consultations where you will gain practical feedback for improving oral and group presentations.
Success Coaches are available for individual student appointments to discuss study skills, time management, note taking, test taking and preparation, and other success strategies.

The Student Success Center’s main office is located in the McDermott Library Building and can be contacted by calling 972-883-6707 or by sending an email to ssc@utdallas.edu.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.