

The University of Western Ontario

School of Communication Sciences and Disorders

CD 9533 Noise II – Theory to Practice

Course Outline – August 2017

Course synopsis: In this module, the focus is on theory-to-practice of topics covered in the Noise 1 course. Topics include noise exposure in occupational and non-occupational settings. Practical applications of noise control, noise exposure measurement, hearing loss prevention through personal hearing protection, and room acoustics including noise issues related to the education setting will be studied. Public education programs relating to noise will also be incorporated into this learning experience. (0.25 credits)

Instructor: Chris Allan, Ph.D.

Office location: Elborn College 2514

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Phone: 82730

Office hours: arranged by appointment.

Classes:

Dates: Tuesday, August 8 – Tuesday August 22

Time: 1:00 pm – 3:00 pm

Room: Elborn College 2510

Learning outcomes: Students will learn and then apply knowledge in the following areas:

- Noise exposure measurement, including noise measures, risk assessment criteria and noise dosimetry
- Noise control basics
- Room acoustics as applied to (1) communication with a hearing impairment and (2) educational settings
- Hearing protection devices
- Public education with respect to hearing preservation

Text and Reading list: There is no required text for this course. Primary readings (or links to them) and links to other useful resources are available on the OWL website associated with this course. Please feel free to post in Forum on OWL any other helpful links and references that you encounter while working on your assignments.

Course requirements and evaluations: There will be four assignments along with your participation and professional behaviour that will form the basis of evaluation for this course. There is no exam.

Details of the assignments will be provided on the OWL website. All assignments should be submitted electronically to the assignments page of the OWL website.

1. Hearing Conservation Program – small group assignment – 20%
2. Noise dosimetry – small group assignment – 20%
3. Hearing protection – small group data collection with individual written assignment – 25%
4. Classroom acoustics – small group data collection with individual written assignment – 25%
5. Participation and Professional Behaviour – 10%

Late assignments and missed deadlines will be penalized 20% per day late. Assignments that are more than 5 days late will receive a mark of 0.

Tentative Integrated 9519 & 9533 Course schedule

Tuesday August 8

- Overview of Noise I and II
- Role of the audiologist in hearing preservation, hearing conservation programming and occupational noise legislation
- Occupational (and non-occupational) noise exposure legislation
- Discussion of by-law assignment

Wednesday August 9

- Risk Assessment
- Dosimetry
- Hearing Protection Devices

Thursday August 10

- Noise Measurement
- Room Acoustics

Friday August 11

- Effects of noise on the auditory system and non-auditory systems

Monday August 14

- Health promotion and hearing conservation
- Education program

Tuesday August 15 – Field work

Wednesday August 16 – Field work

Thursday August 17 – **Guest Lecture (1-3pm): Bev Borst**

Friday August 18 – Field work

Monday August 21 – **Guest Lecture (10am-12pm): Marshall Chasin**

Tuesday August 22 – **Noise Measurement Test**

Wednesday August 23 – Study Day

Thursday August 24 – **Final Exam**

General Course Information

Deadlines

Work submissions must be received by the instructor before 6 p.m. on the due date. The laboratory assignments must be submitted to the course OWL website. Late submissions will be penalized 20% per day late, or any part thereof. As an example, an assignment submitted at 8 p.m. on the due date will be considered one day late.

Classroom Behaviour

Students and course instructors are expected to behave in a manner that is respectful of themselves and others and is supportive of the learning environment. Behaviours that demonstrate the absence of these values, including chronic tardiness, e-mailing texting, websurfing, or disruption of the class with excessive chatting, will not be tolerated. A student whose behaviours negatively impact the learning environment in the classroom to a significant degree will be asked to withdraw from the course.

Please review the *CSD Student Handbook* for further information.

Behaviour during participation in assignments

Several assignments in this course require that you interact with members of the community. While you are completing these assignments, you are also acting as a representative of the CSD Program and Western. Your conduct must, at all times, be respectful of the community members with whom you interact. A failure to maintain an appropriate, professional standard of conduct will automatically result in a mark of 0 for Participation and Professional Behaviour and may also result in a failing grade for the assignment and, in extreme cases, may result in action in accordance with Western's Student Code of Conduct <http://www.uwo.ca/univsec/board/code.pdf>.

Scholastic offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence available at this website: <http://www.uwo.ca/univsec/handbook/appeals/scholoff.pdf>.

Cheating on an examination, falsifying or misrepresenting the origin of material subject to academic evaluation, and plagiarism are examples of scholastic offences. Any student found committing such an offence will be subject to scholastic discipline under the UWO Scholastic Offence Policy. Further details appear in the Western Academic Calendar cited above.

All assignments may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the university, for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

(UWO Academic Calendar <http://www.uwo.ca/univsec/handbook/exam/crsout.pdf>)

Health and Wellness

As part of a successful graduate student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your graduate degree. For example, to support physical activity, all students, as part of their registration, receive membership in Western's Campus Recreation Centre. Numerous cultural events are offered throughout the year. For example, please check out the Faculty of Music web page <http://www.music.uwo.ca/>, and our own McIntosh Gallery <http://www.mcintoshgallery.ca/>. Information regarding health- and wellness-related services available to students may be found at <http://www.health.uwo.ca/>.

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty advisor, their program director (graduate chair), or other relevant administrators in their unit. Campus mental health resources may be found at http://www.health.uwo.ca/mental_health/resources.html.

To help you learn more about mental health, Western has developed an interactive mental health learning module, found here: http://www.health.uwo.ca/mental_health/module.html. This module is 30 minutes in length and provides participants with a basic understanding of mental health issues and of available campus and community resources. Topics include stress, anxiety, depression, suicide and eating disorders. After successful completion of the module, participants receive a certificate confirming their participation.

SAC COMPETENCY COVERAGE

Please note: This coverage is included in some other courses that you will be taking in your program as well as both noise modules: Noise I – Hearing conservation (i.e. this course) and Noise II – theory to practice (i.e. winter year 2).

Section 2.1 PREVENTION

The audiologist demonstrates knowledge of:

- i. The concept of prevention of hearing disorders (e.g., epidemiological considerations, general types or preventive strategies [primary/secondary/tertiary prevention], and measures of program effectiveness and efficiency).
- ii. The strategies for prevention of hearing disorders in all age groups. These include the following: public education, professional education, and client /family/caregivers/institutional education to facilitate understanding of communication disorders; alternatives for intervention, and specific educational programs for parents/caregiver of children/adults at risk for communication disorders.

UNIT EIGHT: OCCUPATIONAL HEARING LOSS

Section 8.1 CONSERVATION/IDENTIFICATION

The audiologist demonstrates knowledge of:

- i. Current noise measurement instrumentation and procedures, and interpretation of noise measurement data and noise exposure surveys.
- ii. Principles and application of legal and scientific risk criteria for occupational noise and other risk factors for hearing loss.
- iii. Principles and application of hearing monitoring procedures and appropriate referral criteria including training and supervising support personnel.
- iv. Procedures for the assessment of hearing conservation program effectiveness (e.g., use of outcome measures recommended).

Section 8.3 MANAGEMENT

The audiologist demonstrates knowledge of:

- i. Procedures for establishing a written hearing conservation program that addresses all relevant components.
- ii. Procedures for record-keeping and management of audiometric data, including procedures for maintaining confidentiality of information.

Section 8.4 EDUCATION

The audiologist will be able to:

- i. Provide appropriate consultation and/or education programs to worker, management, and community groups.

Section 8.5 LEGISLATION

The audiologist will be familiar with:

- i. Existing federal and provincial legislation regarding health, safety, and compensation relating to noise exposure and noise induced hearing loss.
- ii. Existing municipal bylaws related to noise.

UNIT NINE: PROFESSIONAL PRACTICES AND ISSUES

Section 9.3 ADMINISTRATIVE SKILLS

The audiologist demonstrates general knowledge of:

- 1) Needs analysis.
 - 2) Program development and evaluation.
 - 3) Quality assurance programming.
 - 4) Supervision.
 - 5) Establishing and maintaining interprofessional relationships.
 - 6) Caseload management.
 - 7) Minimal requirements for establishment and provision of services (e.g., physical plant, human resources, operational resources).
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