Faculty of Pharmacy, Nursing and Health professions
Department of Audiology and Speech Therapy
SPAU 338 Hearing Aids II
Course Syllabus

Course Description:

This course is designed to provide Audiology and Speech Therapy students with advanced theoretical knowledge on patient-centred counselling approaches, paediatric hearing aid selection and fitting, assistive-hearing technology devices, bone-conduction hearing devices, middle ear implantable devices and cochlear implants. The course covers the candidacy criteria, fitting methods, counselling and follow up protocols as well as troubleshooting methods offered to the recipients of these technologies.

Pre-requisite Courses:

For enrolment, students must have successfully passed:
SPAU332 Hearing Aids 1
SPAU334 Diagnostic Audiology

Offered: Spring 2022 Room 303
T: 14:15 – 15:30 W: 15:30 – 16:45

Credits:

Theory: Three credit hours.

Faculty:

Dina Budeiri, MSc Audiological Science
Office: PNH404
Email: dbudeiri@birzeit.edu
Office Hours: T: 12:00 – 14:00
W: 10:00 – 12:00
Or by a previously arranged appointment.

Course Outcomes:

1. Identify and discuss different counselling approaches related to patients receiving hearing technologies including information counselling and personal adjustment counselling
2. Discuss paediatric hearing aid candidacy and selection
3. Identify the need for and the types of assistive hearing technologies
4. Describe the candidacy and fitting criteria of bone anchored hearing devices and middle ear implantable devices
5. Describe the candidacy criteria of cochlear implants
6. Discuss basic programming and tuning approaches in cochlear implants

Course References and Readings:

- Dillon, Harvey (2012). **Hearing Aids**. 2nd Edition. Boomerang press
- Gifford, R (2013). **Cochlear implant Patient Assessment**
- Ruckenstein Michael (2012). **Cochlear Implants and Other Implantable Hearing Devices**. Plural Publishing
- Wolfe and Schafer (2015). **Programming Cochlear Implants.** Plural Publishing.
- Additional readings from relevant journals, audio-visual programs, and web-based activities may be assigned during the semester.

Course Requirements

1. Cell phones must be **turned off** before lecture begins
2. **Chatting in class is unacceptable** and represents a disturbance to the class flow. This may be considered as a misconduct if the flow of teaching is affected and **disturbers may be asked to leave the class immediately**
3. Attend classes and actively participate in class discussions
4. All assignments must be submitted in class on assigned due date. Late assignments will **not be accepted** without prior approval from the instructor and will result in **a mark of zero.**
5. Complete all assessments including the first, second and the final exams, quizzes and assignments designed to evaluate the understanding of background material and theory covered throughout the course
6. In case of an excused absence, the course instructor must be notified by email and a report documenting the cause of the absence must be supplied. Absence on an exam/quiz day without prior approved excuse will result in receiving a **mark of zero**

Grading

Grades will be determined by **pop** quizzes (given without prior warning), exams (First, second and final) and an assignment. each assessment contribution towards the final mark is as follows:

- First Exam 20%
- Second Exam 20%
- Final Exam 35%
- Pop quizzes (3 quizzes) 15%
- Critical Appraisal 10%

The final grade will be based on the total number of points accumulated by the student and expressed as a percentage (%) of the total points possible during the semester. Grades will be assigned using the following percentage scale:

Grade	**Classification**
85-100%	Excellent
78-84%	Very Good
70-77%	Good
60-69%	Satisfactory
Below 60%	Failure

COURSE POLICIES

Preparation/Attendance:

Students are expected to come to class prepared having completed all assigned readings. In case of absence, course instructor must be notified. Students are strongly encouraged to study and prepare for lectures regularly as **pop quizzes** (given without prior notice) may be given in any lecture.

Make-up Work and Retakes:

If a student is unable to attend class on an exam day, the faculty member must be notified beforehand either by email or phone call. Failure to do this may result in **a mark of "0".**

Make-up tests may be in a variety of formats or combination of formats including oral, or written in the form of multiple choice, short, or long answers (essay questions). The decision to allow students to revise assignments and/or re-take examinations will be made at the discretion of the course instructor.

Citation Style (Refer to this especially in assignments): Students must follow the American Psychological Association (APA) version 5 citation format. The following website link provides condensed information from the APA Manual:
http://owl.english.purdue.edu/handouts/research/r_apa.html

COURSE SCHEDULE AND REQIURED READINGS

Week	Topics	References/ Reading Material
Week 1	• Hearing Instrument Fine Tuning and Trouble Shooting	SPAU332
Week 2	• Assistive Listening Devices and Technologies	Dillon (2012) pp. 69-79
Weeks 3 + 4	• Peadiatric Hearing Aid Selection and fitting	American Academy of Audiology Clinical Practice Guidelines Pediatric Amplification (2013). Clinical Protocols for Hearing Instrument Fitting in Desired Sensation Level Methods (Bagatto et al., 2015).
Week 5	**First Exam**	**April 19th 2022**
Week 5	• Bone-anchored hearing devices design and hardware • Bone-anchored hearing devices candidacy	Dillon (2012), pp. 520 and pp.526-529 Ruckenstein Michael (2012). Chapter 19
Week 6	• Middle Ear Implantable Devices hardware and candidacy	Dillon (2012) pp.529-536 Aroor & Somayaji (2016) (Article)

Week 7	• Cochlear implant design, hardware and signal processing	Wolfe & Schafar (2015) pp. 1-5 Ruckenstein Michael (2012). Chapter 4
Week 8	• Cochlear implant assessment and candidacy criteria for adults and paediatrics	Gifford, R (2013). PP.11-48
Week 9	**Second Exam**	**May 17th 2022**
Week 9	• Surgical and medical aspects of cochlear implantation • Factors influencing benefit from cochlear implants in adults and children	Journal articles and online resources Critical appraisal of evidence (assignment)
Week 10	• Basic Terminology of cochlear implant programming	Wolfe & Schafer, 2015. Programming Cochlear Implants. PP. 61-83
Week 11	• Basic principles of cochlear implant programming	Wolfe & Schafer, 2015. Programming Cochlear Implants. Chapter 3
Week 12	• Basic principles of cochlear implant programming	Wolfe & Schafer, 2015. Programming Cochlear Implants. Chapter 3
Week 13	**Review + Final Exam**	(date to be announced)