

1. Facts & figures

- A student with a hearing impairment experiences difficulties in the **discrimination or interpretation of auditory information**.
- There is a large variability in the severity of the hearing loss (mild, moderate, severe or profoundly deaf) and the nature of the hearing loss (perceptual or conductive hearing loss).
- In Belgium **10% of the population** is hearing impaired.
- The group of students with a hearing loss that is in higher education or is about to start in higher education is very **divers**:
 - There are students that communicate through **spoken language**. These students were raised orally and were stimulated auditorily from early on. In a quiet environment they can understand a one-on-one conversation. In group, from a distance or in a noisy environment comprehension becomes difficult and assistive tools such as FM or blue tooth are needed. They will use a writing assistant that capture the communication in writing when needed. The oral and written language of these students is as good as flawless.
 - There are students that communicate using **sign language**. These students often learned language through visual input, by using sign language or lipreading. They don't use assistive tools such as FM or a transmitter very often. When they need an interpreter, most often they use an sign language interpreter. Their spoken and written language often contains errors because the grammar of sign language is very different from the grammar of spoken language.
- Students with a hearing impairment can **experience difficulties** with:
 - **following lectures and interacting** during lectures e.g. perceiving spoken course content, taking notes, consulting video and audio materials.

STUDYING WITH HEARING IMPAIRMENT

Facts & figures, focus points, tips & tricks

- **communication.** Often there is reduced intelligibility in spoken language (unclear articulation, monotone voice), and reduced comprehension of spoken language **in contact with peers and lecturers**, in the absence of an interpreter.
- **written language.** Reduced vocabulary and difficulties with abstract language and grammar can occur.
- **studying** e.g. slower pace when processing and studying course materials due to the use of notes from peers or an interpreter.

2. Focus points, tips & tricks

Attending classes

Focus points

- Problems with capturing **auditory input** can occur. **Course materials** such as video or audio files can cause accessibility issues.
- There are often difficulties with combining lipreading or interpreting with taking notes.
- Communication with lecturers and fellow students can be hampered.

Tips and tricks

- Being allowed to choose **a seat** in the class room can help follow the class as comfortable as possible.
- The use of technological tools (e.g. FM-appliances), **an interpreter or a writing assistant**, **captions**, **a written description** of the video material, and a **PowerPoint** that is delivered before class facilitate the capturing of auditory information and taking notes.
- **A training in taking notes** can have added value.
- **Copies of notes** of fellow students can have substantial added value in addition to their own notes.

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- Lecture recordings that are made available online after classes, offer the opportunity to review difficult passages and complete notes.
- Information and agreements on the **course of action, the code of conduct and communication** (how to reach a lecturer in case of questions during or after class through mail, eye contact, visibility of the mouth, ...)

Planning and organizing study-related activities

Focus points

- Often **more time** is needed to process the course content and assignments leading to difficulties with **study planning**.

Tips and tricks

- Providing an **overview** of all assignments and tasks in time helps to create an overview and make up an efficient study plan.
- During a training in **time management and study coaching**, planning skills and time management skills can be enhanced.

Processing and rehearsing study materials

Focus points

- Processing large amounts of **linguistic information** takes time and energy, even more so in foreign languages.
- The auditory problems can have an influence on the **processing speed**.
- Processing **subject matters** with a strong **linguistic component** (e.g. foreign languages, abstract language, master thesis) can be difficult.

Tips and tricks

- Subject specific support or pedagogical assistance and the use of **word lists and a grammar rule book** can be supportive.

- Stating the **learning goals** very explicitly and providing **sample questions** can be useful to help process the content and enhance self- testing strategies.
- Offering **study coaching** where the focus lies on learning techniques that help discriminate key issues from side issues can enhance learning outcomes.

Assignments

Focus points

- Linguistic problems can hamper the **comprehension of instructions and assignments**.
- Written assignments such as **essays and bachelor or master theses** are a challenge. **Limited correction and test strategies** increase the number of errors, specifically in case of immediate submission. Self-written texts contain a lot of errors, are less structured and are less pleasant to read despite the fact that a lot of time is invested in writing these texts.
- Because of limitations in the oral language, **presentations and group assignments** are challenging.

Tips and tricks

- In addition to an **oral explanation**, the assignment should be given in **writing**.
- Checking whether the **assignment was understood** is supportive.
- For reading and writing tasks **sufficient time** should be provided.
- **Applying adequate tools** such as dictionaries, spelling control, word predictors and reading software can increase the level of correction substantially.
- Offering a **training in writing skills** can be supportive to learn how to better structure texts.

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Facts & figures, focus points, tips & tricks

- A **distinction** should be made between **immediate and delayed submission**. In case of delayed submission the correction level can be enhanced because assistive tools or support can be applied. In case of immediate submission an adapted rating is important provided this is not in contradiction with the learning goals.
- An **empathetic attitude** during presentations (e.g. giving time to find a word) and focusing on the **content is supportive**. If necessary a growth pad can be applied.

Exams

Focus points

- The **comprehension of assignments** is often problematic.
- **Written exams** often contain spelling and linguistic errors (e.g. articles) and are less structured, which makes them less pleasant to read.
- Due to slower information processing a **lack of time** can occur in order to prepare and answer all the questions.

Tips and tricks

- Providing **sample questions and model answers** can help prepare for an exam.
- Formulating clear and unambiguous questions helps understand the question correctly.
- **Rephrasing questions** helps verify whether the question is understood correctly.
- **Extra time for the preparation** of an oral or written exam allows to compensate for the slow reading speed, writing problems and slow information processing.
- Using the **appropriate assistive tools** such as dictionaries, spelling checker, word predictors can enhance the pace and the level of spelling

correction considerably.

- An additional **oral presentation** at a written exam can help clarify the responses and eliminate ambiguities.
- An **optimal spread of exams** within an exam period can compensate for the overload and slower processing speed.

Internships

Focus points

- Problems with captioning the **auditory input** can arise. Meetings in group are often difficult.
- At times adjustments to the internship are necessary.

Tips and tricks

- **Specific assistive tools** (e.g. tablemic for team meetings, placing a light signal on a machine that gives auditory signals) or the use of a **writing assistant** or interpreter in sign language can help capture the auditory input.
- **Personalized communication tips** to colleagues or clients can be supportive.

Student life

Focus points

- Participation in **student activities** and the associated **social contacts** with peers can be challenging.
- These challenges can have an impact on the **general well-being**. Stress, anxiety and loneliness can occur.

Tips and tricks

- Exploring **activities** that are in the field of interest, organized by **student associations or student services**, provide opportunities to expand social contacts. There are associations for deaf students.
- A **fixed contact person** in the study program can help monitor the load limit and help look for solutions in case of difficulties.
- Staff members of student facilities provide for **coaching in case of psycho-social problems**.