

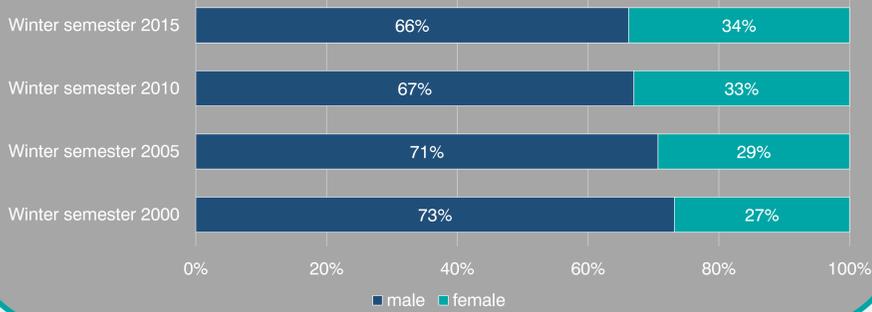
How to implement a “gender in research” approach at Engineering Faculties in Austria?

Dr Bente Knoll, B-NK GmbH Consultancy for Sustainable Competence (Büro für nachhaltige Kompetenz); Vienna University of Technology; University of Applied Sciences Technikum Wien

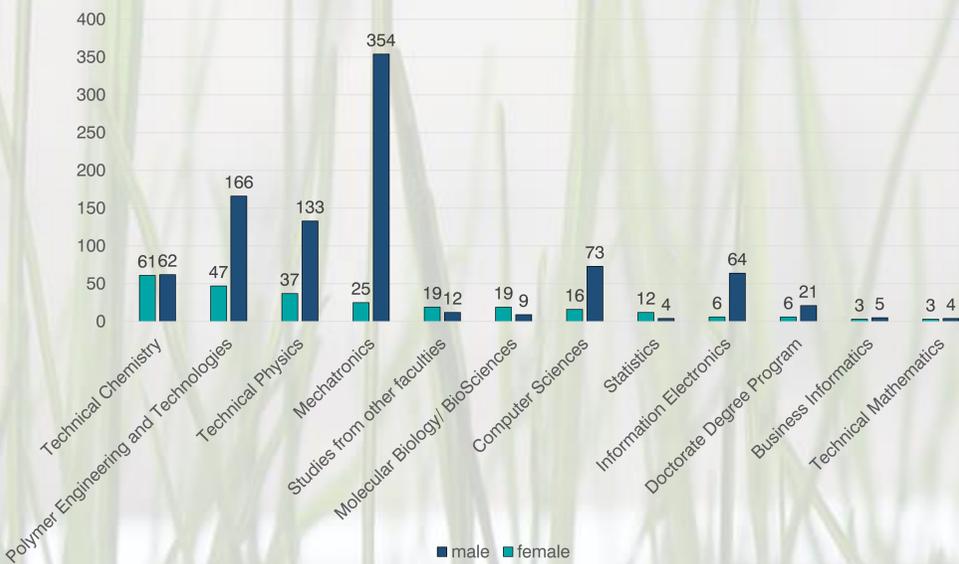
Facts & figures

An analysis of various Austrian technical universities and faculties reveals that the number of female students has only slightly increased over the last few decades. At the Vienna University of Technology the overall women's quota among all studies was 24 % (2013). At the Faculty of Science, Engineering (SET) and Technology at the University in Linz, Upper Austria, the quota was 34 % (2011/12).

Studies in the field of science, engineering and technology at Austrian universities



Gender distribution of registered students in gender studies courses at Johannes Kepler University (SET faculty) 2009-2014



Participation in gender study exams

Written exams in gender studies courses at Johannes Kepler University (SET faculty)

Semester	Year	Number of students	Type of exam
Summer semester	2009	63	written exams
Winter semester	2009/10	64	written exams
Summer semester	2010	53	written exams
Winter semester	2010/11	131	written exams
Summer semester	2011	90	written exams
Winter semester	2011/12	113	written exams
Summer semester	2012	88	written exams
Winter semester	2012/13	77	written exams
Summer semester	2013	75	written exams
Winter semester	2013/14	63	written exams
Summer semester	2014	66	written exams
Total sum		883	written exams

As probably all lecturers teaching gender studies in higher education institutions as well as vocational gender trainers are aware of:

It is a common fact that, when teaching gender studies and discussing gender (in-)equality, students tend to communicate their individual opinions and their individual day-to-day life experiences, e.g. with their boy- or girlfriends or with their own children and/or

Gender studies

Over the last 15 years “Gender Studies” have become part of the curricula also at technical universities. Most of the universities have implemented gender studies lectures as a non-compulsory or an “elective” course. Some fields of studies, such as Architecture at the Vienna University of Technology, provide a compulsory course. The Johannes Kepler University in Linz with its various faculties (law, social sciences,...) has an outstanding position in Austria: “Gender Studies” as a compulsory class is implemented within all faculties - also at the SET focus. Students get 3 ECTS.

Various teaching assignments over the last 10 years

- **Since 2005**, the author has provided **11 interactive seminars** at the **University of Technology in Vienna**. These seminars were scheduled in each winter semester and were organised in a 2.5 days-block, in order to enable the students a deepen examination of gender topics related to their fields of studies as well as some self-reflection and rising of their individual gender-awareness in general.
- **Since 2006**, she has held **10 ex-cathedra lectures** at the **University of Technology in Vienna**. These lectures took place 7 times each summer semester and lasted 4 units (in intervals of 45 minutes) every 2 weeks.
- **Since 2008**, she has given **basic ex-cathedra lectures** on gender studies, engineering, and technology at the **Johannes Kepler University in Linz**. These lectures are compulsory for all students at the Faculty of Engineering & Natural Sciences and all together the author has **held 13 lectures**. Each of them was organised in a block of a 2-days-lecture followed by a 1-day lecture.
- **Over the last several years** she did **short term lectures** and **interactive seminars** providing basic information on gender studies in engineering as well as basic gender awareness trainings. These courses were given at several other universities, such as the **University of Applied Sciences** in Eisenstadt, at the University of Applied Science Technikum Wien and in several postgraduate courses, such as sustainable mobility management at the **Donau University in Krems** and energy management at the **Energy Institute of Linz**.

Facts: The participants of the gender study courses mainly come from science, engineering or technology fields of studies. So it is highly recommended to include a brief introduction of the concept “doing gender” and the societal influence and construction on our being.

Historical background: During the lectures an overview on the European women's liberation movement and its relation to women's education as well as science and technology is provided.

Case studies: The author presents research on the day-to-day gender-stereotypes and assumptions concerning technical competences and abilities of women/girls and men/boys at various educational levels.

(Political) strategies towards gender equality: An overview of the legal background of gender equality at the Austrian and European level is provided.

Mostly discussed topics in class

- **Historical background** and perspectives of women's liberation movement and its relation to science and technology
- Recent **findings of gender inequalities** in our society and their relation to working conditions in Austria
- Day-to-day **gender-stereotype** assumptions **concerning technical competences and abilities** of women/girls and men/boy **on different educational levels** (kindergarten, primary and secondary school, higher education and working lives) and their de-construction
- **Representation of technology** as well as people dealing with technology within mass media and websites
- **Gender scripts** within technological artefacts and technological research and development processes
- **Legal background** of gender equality at the Austrian and European level

parents. It seems that, when debating gender issues, students neglect the academic discourse and gender theories.

The author aims to contribute to a “de-emotionalisation“ of gender and gender studies in STEM. She understands gender studies as a part of a broaden education.

References

Knoll, Bente, Ratzler, Brigitte; 2010: Gender Studies in den Ingenieurwissenschaften. Facultas wuv Universitätsverlag. Wien

Knoll, Bente; 2014: Gender Studies at Engineering Faculties in Austria. 8th European Conference on Gender Equality in Higher Education. Wien
http://gender2014.conf.tuwien.ac.at/fileadmin/t/gender2014/Full_Papers/Gender_Studies_at_Engineering_Faculties_in_Austria_BenteKNOLL.PDF

Contact

Dr.in Bente Knoll, Managing director of B-NK GmbH Büro für nachhaltige Kompetenz (Consultancy for Sustainable Competence)

Landscape and transport planner, gender expert, social media designer
 Lecturer at Austrian universities, such as Vienna University of Technology, Johannes Kepler University Linz, University of Applied Sciences Technikum Wien

bente.knoll@b-nk.at

<http://www.b-nk.at/>



b-nk Büro für nachhaltige Kompetenz