Online Modules offered for Medical Engineering students in winter semester (WS) 2022/23

A general word of advice: Less is more! If you were admitted with conditional subjects, consider just concentrating on these subjects in your first semester. There is no minimum amount of credits that you have to acquire per semester and once you have cleared your conditions (for which you have a hard one-year deadline) it will be no problem to extend your duration of studies to a 5th, 6th or 7th semester and beyond if needed.

- **Engineering Mathematics (conditional subject, can be used in module group M8 if desired)**
  - 7,5 ECTS credits
  - Responsible lecturer/examiner: Prof. Wilhelm Merz
  - Modality: self-study & on-site exam in Erlangen; potential option to take an online exam if you cannot travel to Erlangen due to visa problems and can prove the same, please inform your examiner in due time.
  - Materials in StudOn:
    https://www.studon.fau.de/studon/ilias.php?ref_id=4622699&cmdClass=ilinfoscreengui&cmd=showSummary&cmdNode=127:q0:hn&baseClass=ilRepositoryGUI

- The conditional subject "Probability and Stochastic Processes" is not offered in the winter semester. According to the information available at present, it will be offered in the summer semester as an on-site course in Erlangen. Please be aware that you can only take the respective exam for this course once (in summer semester 23) in order to clear your condition in mathematics (if you have any).

- **Algorithms, programming, and data representation (conditional subject, can be used in module group M8 if desired)**
  - 5 ECTS credits (for the lecture only; participation in the additional exercises is highly recommended, but not mandatory)
  - Responsible lecturer/examiner: Prof. Bernhard Kainz
  - Modality: self-study and online exam
  - Materials in StudOn: https://www.studon.fau.de/crs4622942.html

- **Fundamentals of Electrical Engineering (conditional subject, can be used in module group M8 if desired)**
  - 5 ECTS credits
  - Responsible lecturer/examiner: Prof. Ralf Müller
  - Modality: self-study & on-site exam in Erlangen; potential option to take an online exam if you cannot travel to Erlangen due to visa problems and can prove the same, please inform your examiner in due time.
  - Materials in StudOn:
    https://www.studon.fau.de/studon/ilias.php?ref_id=4690962&cmd=infoScreen&cmdClass=ilrepositorygui&cmdNode=127&baseClass=ilrepositorygui

- **Dynamical Systems and Control (conditional subject, can be used in module group M8 if desired)**
  - 5 ECTS credits
  - Responsible lecturer/examiner: Prof. Knut Graichen, Prof. Andreas Völz

- o Modality: self-study & on-site exam in Erlangen; potential option to take an online exam if you cannot travel to Erlangen due to visa problems and can prove the same, please inform your examiner in due time.
  - o Materials in StudOn: https://www.studon.fau.de/studon/ilias.php?ref_id=4622556&cmdClass=ilinfoscreengui&cmd=showSummary&cmdNode=127:q0:hn&baseClass=ilRepositoryGUI

- **Pattern Recognition (module group M2 for "Medical Image and Data Processing" and "Health & Medical Data Analytics and Entrepreneurship; for "Medical Robotics", this course can be used in module group M7 or M8)**
  - o 5 ECTS credits
  - o Responsible lecturer/examiner: Prof. Andreas Maier
  - o Modality: self-study & on-site exam in Erlangen; potential option to take an online exam if you cannot travel to Erlangen due to visa problems, please inform your examiner in due time.
  - o Materials in StudOn: https://www.studon.fau.de/studon/goto.php?target=crs_4624309

- **Diagnostic Medical Image Processing (module group M3 for "Medical Image and Data Processing" and "Health & Medical Data Analytics and Entrepreneurship; for "Medical Robotics", this course can be used in module group M7 or M8)**,
  - o 5 ECTS credits
  - o Responsible lecturer/examiner: Prof. Andreas Maier
  - o Modality: online course offered via the e-learning platform "Virtual Universtiy Bavaria" (VHB) & on-site exam in Erlangen; potential option to take an online exam if you cannot travel to Erlangen due to visa problems, please inform your examiner in due time.
  - o Type "Medical Image Processing for Diagnostic Applications" in "Kurs suchen" at https://www.vhb.org/ **Please register with the study program "Gesundheitstechnik"!**

- **Biomedizinische Signalanalyse/Biomedical Signal Analysis (module group M3 for "Medical Image and Data Processing" and "Health & Medical Data Analytics and Entrepreneurship; for "Medical Robotics", this course can be used in module group M7 or M8**)
  - o 5 ECTS credits
  - o Responsible lecturer/examiner: Prof. Björn Eskofier
  - o Modality: self-study & online exam
  - o Materials in StudOn: https://www.studon.fau.de/crs4622015.html

- **Machine Learning for Time Series (module group M2 for "Medical Image and Data Processing" and "Health & Medical Data Analytics and Entrepreneurship; for "Medical Robotics", this course can be used in module group M7 or M8)**
  - o 5 ECTS credits
  - o Responsible lecturer/examiner: Prof. Björn Eskofier
  - o Modality: self-study & online exam
  - o Materials in StudOn: https://www.studon.fau.de/crs4683048.html

- **Online German beginners course for Medical Engineering students (can be used for module group M8 in all branches of study)**
  - 5 ECTS credits
  - Responsible lecturer/examiner: lecturers of the FAU Language Center
  - Modality: 2 hours of synchronous online lessons per week + 4 self-study hours with online material
  - **Registration (04. Oct 2022, 00:00 - 13. Oct 2022, 08:00)** and materials in StudOn: https://www.studon.fau.de/crs4645049.html

Important resources:

Technical problems with VHB platform: technik@vhb.org
Technical problems with StudOn: studon@fau.de
Technical problems with Campo: campo@fau.de
Course-related questions: Please ask in the StudOn forum of your course!

In urgent, important cases you can look up the contact details of your lecturer in
http://www.univis.fau.de/