

Joint Master's program Biomedical Engineering

X4M 2305 Design of Medical Electronic Devices	Project, 4 SWS
Workload:	see related module
Credit-points:	5
Lecturer:	Martin Ryschka
Language:	English
Curriculum:	Master's program Biomedical Engineering, 2nd Semester
Prerequisites according to examination regulations	None
Recommended prerequisites:	<p>Knowledge about the regulatory requirements of medical electronic devices</p> <p>Good knowledge in electronics</p> <p>Basic knowledge in project management</p>
Learning outcomes:	<p>Skills:</p> <ul style="list-style-type: none"> • Understand the main parts of the development process of a medical electronic device • Practice for detailed elaborations, e.g. of a device module • Professional documentation of a medical device development process <p>Competences:</p> <p>How can individual knowledge and individual skills be integrated into group work?</p>
Content:	<p>Project: Design of a medical electronic device</p> <ul style="list-style-type: none"> • Drawing up the requirements list • Drawing up the specification and a concept • Detailed development of modules • Realization and test of modules according to specification • Integration and validation according to requirement list
Literature:	<p>IEC 60601-1 and related standards</p> <p>Current research papers related to the specific medical device</p> <p>Data-sheets of used electronic-components</p>
Examination:	Graded lab-report, presentations (portfolio)
Teaching methods:	Group-work, presentations, several software-tools for the development of electronics, lab-work