

## Design and Ergonomics of the Medical Product

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<b>University:</b>	CTU
<b>Level:</b>	BA all years, MA all years
<b>Teaching mode:</b>	completely online, at specific time
<b>Instructor(s):</b>	Ing. Marek Piorecký, Ph.D.

### Short description

Within the course, students implement the design of a medical device in the SolidWorks software environment including technical documentation and present the result of their work to others.

### Full description

Expected topics:

- A) Hospital bed design,
- B) Design of a prosthesis (thoracic, pelvic limb or joint),
- C) Design of a self-service bed,
- D) Design of a wheelchair for the disabled,
- E) Design of an ergonomic chair,
- F) Design of (parts of) a medical device,
- G) Design of a medical device for the disabled.

### Learning outcomes

The students will gain knowledge of Solidworks software. The students will be able to prepare the complete technical documentation of a medical device.

### General information

<b>Contact hours per week:</b>	4
<b>Total workload:</b>	80 (in student hours for the whole course)
<b>ECTS credits:</b>	4
<b>Language:</b>	English
<b>Course start date:</b>	20 February 2023

**Course end date:** 28 May 2023

**Add. info about start date:** Start date course refers to start of the semester at CTU. Time schedule is available 1-2 weeks before the semester starts.

**Weekly teaching day/time:**

**Time zone:** CET (Denmark, Germany, France, Netherlands, Switzerland, Czech Republic)

**Further information:**

**Prerequisites:** N/A

**Activities and methods:** Lectures, Seminars, Exercises

**Presence on campus:**

## Final examination

**Form:** Assessment based on a defence of individual design project

**Date:**

**Location/format:**

**Re-sit possibility:**

**Transcript available:** end of semester

**Add. info/requirements:**

## Registration

To register for this course, follow the registration requirements of your **home university** as specified here: [www.euroteq.eu/courses-registration](http://www.euroteq.eu/courses-registration).

## Administration

**Number of places:** 10

**Minimum participants:** 1

**Internal course code:** F7PMBDAE

**Contact:** marek.piorecky@fbmi.cvut.cz

*This course is part of the EuroTeQ Engineering University joint course catalogue 2023. This is a collaborative activity of the partner universities DTU, L'X, TU/e, TalTech, CTU, TUM as well as Technion. Students from these universities can participate in the offered courses. It is the responsibility of the student to check if you fulfil the requirements to participate in a specific course. Students are also advised to check with their home institution how to get recognition of the ECTS credits gained in courses of the EuroTeQ course catalogue. For further information about EuroTeQ Engineering University, visit [www.euroteq.eu](http://www.euroteq.eu) or get in touch with the above-mentioned point of contact.*