



Wrocław
University
of Science
and Technology

International second level studies
at
the Faculty of Mechanical and Power Engineering



Master of Science in Refrigeration and Cryogenics

Your strengths after graduation:

- detailed knowledge of devices and installations designed for cooling down to -150°C and, in the case of cryogenics, for temperature lowering below 120 K and down to fractions of Kelvin.
- skills in designing, implementing and operation of both refrigerating and cryocooling systems.

Additionally, you can apply creatively modern design methods and are well prepared for undertaking PhD studies.



Entry information:

- **Requirements:** B.S.C.. or B.Eng. diploma in power/mechanical engineering or related field.
- **Mode of study:** Full time
Programme lasts three semesters **starting from 26th February 2020**
- **Medium of instruction:** English
Language skills of UE and non-UE candidates - equivalent of minimum **TOEFL IBT - 87 point or 6.5 points IELTS**. List of accepted language certificates can be checked online.

Beginning of admission:

Non EU/EFTA students: **November 2019**

EU/EFTA students: see www.rekrutacja.pwr.edu.pl/en >> **Application Deadlines & Calendar**

Tuition fee:

Non EU/EFTA students: **2000 EUR per semester**

EU/EFTA students: no tuition fee

Application fee:

Non EU/EFTA students: **20 EUR**

EU/EFTA students: see www.rekrutacja.pwr.edu.pl/en >> **Fees and Legal Acts**



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Job prospects:

You will be prepared to work in all industrial branches that apply refrigeration and cryogenic technologies.

In particular, you will have a good base to:

- design modern refrigeration and cryogenic units and installations,
- create new solutions and methods of temperature lowering,
- supervise work in food cold stores, refrigeration and air conditioning installations, air rectification and technical gas production plants, natural gas liquefaction plants and other refrigeration and cryogenic systems.



Content of courses:

1st semester (February - July 2020)

- Applied Mathematics
- Mechanics Analytical
- Modern Engineering Materials
- Mechatronics and Control Systems
- Vapor-Compression Refrigeration Systems
- Thermodynamics Fundamentals of Refrigeration, Cryogenics and Low Temperature Physics
- Refrigerants, Coolants and Cold Chain
- Cryogenics
- Foreign Language at B2+/C1 level

2nd semester (October 2020 - January 2021)

- Finite Element Analysis
- Gas and Cryogenic Technologies
- Air Conditioning Systems
- Cryogenic System and Applied Superconductivity
- Numerical Techniques Related to Heat Transfer
- Cooling Systems
- Sorption Refrigeration
- Cryogenic Materials and Fluids
- Management Course (eligible)
- Foreign Language (next level, any level)

3rd semester (February - July 2021)

- Failure Analysis of Machines and Devices
- Integrated Production Systems
- Humanities Course (eligible)
- Master Thesis
- Master Seminar

For details see:

<http://wme.pwr.edu.pl/en/RAC/>

More details:

<http://wme.pwr.edu.pl/en/RAC/>

<http://wme.pwr.edu.pl/en/Admission/>

<http://rekrutacja.pwr.edu.pl/en/>

Programme coordinator:

Stefan Reszewski, Ph.D.

Stefan.Reszewski@pwr.edu.pl