

International Master Course

Scientific Instrumentation

University of Applied Sciences Jena (Germany)

Department of **SciTec**

Precision – Optics – Materials – Physics



University of Applied Sciences Jena:

- Founded in the year 1991
- 4500 Students
- 9 Departments
- 25 Bachelor and Master Courses in:
 - Engineering
 - Economics
 - Social Sciences
- Emphasis on Practical Applications



Course programmes:

Bachelor

Precision Engineering

Microtechnology / Physics Engineering

Laser and Optotechnology

Materials Engineering

Optometry

German

English

Master

Scientific Instrumentation

Laser and Optotechnology

Materials Engineering

Vision science



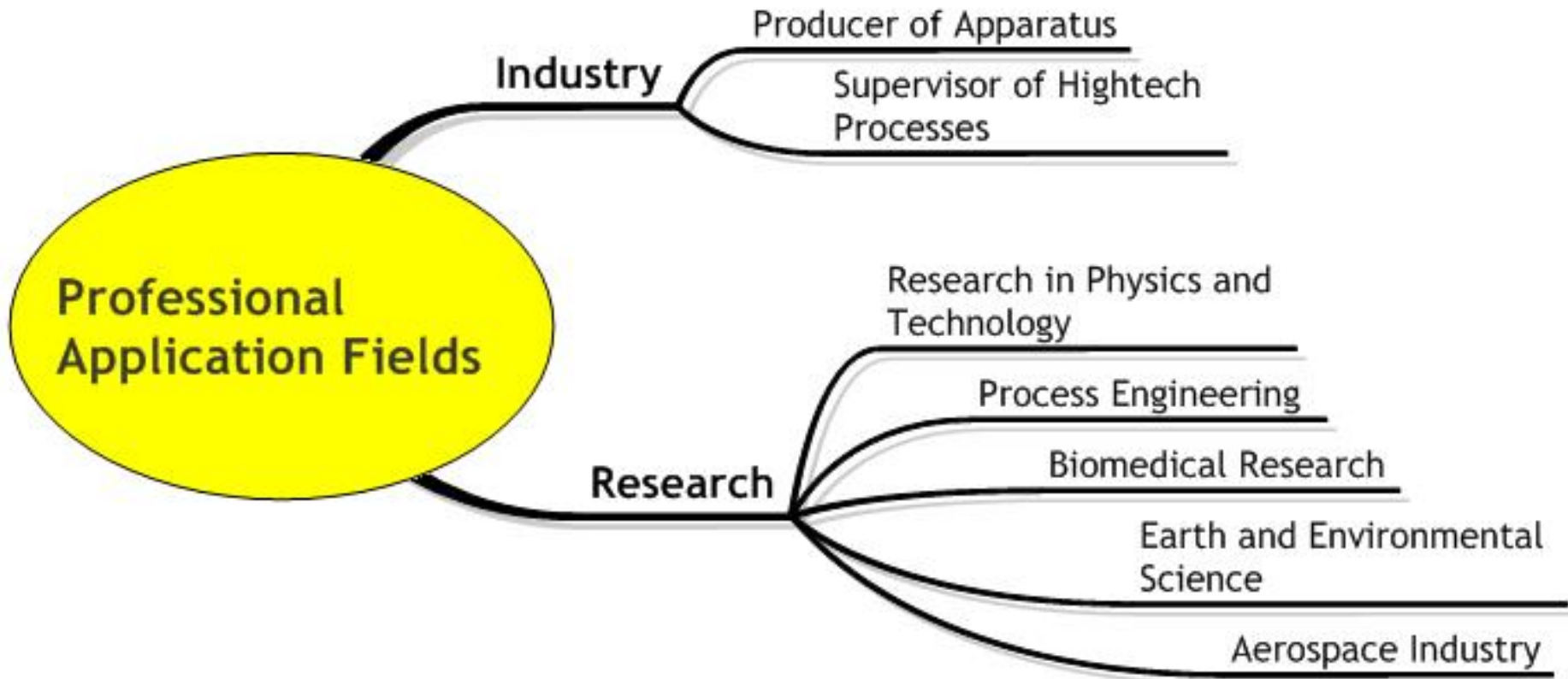
International Master Course

Scientific Instrumentation (M. Sc.)



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International Master Course

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Taught in English language

Duration: 4 Semesters:

- 2 Semesters with taught courses
- 1 Semester with Research Internship
- 1 Semester with Master Thesis



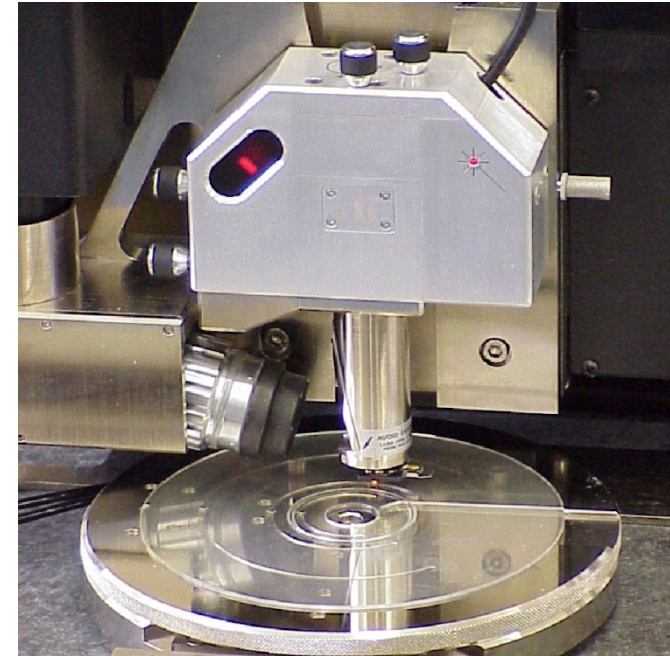


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Areas of Specialisation

- Materials for Sensors and Electronics
- Micro- and Nanotechnology
- Optical Instruments
- Gas Sensing + Aerosol Measurement
- FEM and Simulation
- Advanced 3D-Design
- Precision Instrumentation
- Scientific Computing



	Module 1	Module 2	Module 3	Module 4	Module 5
1st Semester	Postgradual Basis Module		Physical Materials Diagnostics	Scientific Writing and Presentation	Non-technical Module 1 / German
2nd Semester	Elective Module				Soft Skills Non-technical Module 2 / German
3rd Semester	Research Internship				
4th Semester	Master Thesis				Colloquium

Postgradual Basis Modules:	for graduates in e.g. Precision Engineering	Solid State Physics	Microsystems Engineering	Hardware Electronics
	for graduates in e.g. Physics Engineering	Design of Precision Devices	Introduction to FEM	Hardware Electronics
	for graduates in e.g. Electrical Engineering	Design of Precision Devices	Introduction to FEM	Solid State Physics
Recommended Elective Modules in 2nd semester	Materials for Sensors and Electronics	Micro- and Nanotechnology	Optical Instruments	Gas sensing and Aerosol Measurement
	FEM and Simulation	Advanced 3D-Design	Precision Instrumentation	Scientific Computing

Learning Targets



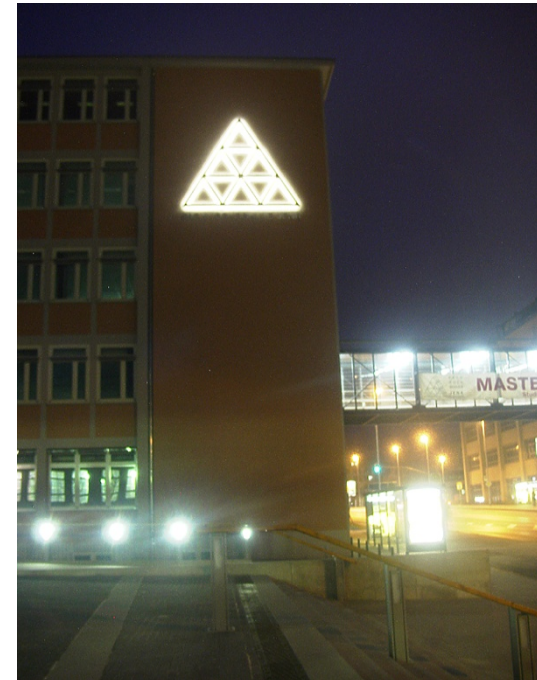
**Accredited by the German
Accreditation Council**

Stiftung zur Akkreditierung von Studiengängen in Deutschland
Akkreditierungsrat ■■

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Admission requirements

- University degree in one of the following programmes
 - Physics
 - Physics Engineering
 - Mechanical Engineering
 - Electronic or Electrical Engineering
 - Materials Science or Engineering
 - Instrumentationor in an other science/engineering programme
- Good Knowledge of English Language
 - Internet-based TOEFL: 79 points
 - IELTS overall band score of 6.0



Fees:

- **Application fee**

(for students from outside of the European Union)

- 25 Euro

- **Administrative fee:**

- \approx 237 Euro / semester
- Includes ticket for public transport



Modern campus with best equipment



$$d = \frac{\lambda}{2n \sin \alpha}$$

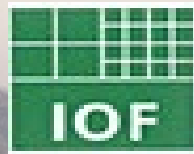


Jena:

The optics city

Carl Zeiss	(1816-1888)
Ernst Abbe	(1840-1905)
Otto Schott	(1851-1935)

Jena: High Technology City





Cultural life in Jena

- 100,000 inhabitants
- 25,000 students
- Concert hall
- Orchestras
- Theatres
- Music festivals

Leisure Activities

- Student clubs
- Pubs and restaurants
- Sport facilities



- Charming countryside
- Shopping facilities



Distances from Jena:

- Berlin 250 km
- Munich 360 km
- Frankfurt 270 km