



International Master Course Physics



Brandenburgische
Technische Universität
Cottbus - Senftenberg

Faculties



FACULTY 1

Mathematics, Computer
Science, Physics, Electrical
Engineering and Information
Technology

FACULTY 2

Environment and Natural
Sciences

FACULTY 3

Mechanical Engineering,
Electrical and Energy Systems

FACULTY 4

Social Work, Health Care and
Music

FACULTY 5

Business, Law and Social
Sciences

FACULTY 6

Architecture, Civil Engineering
and Urban Planning

Welcome to the Institute of Physics @ BTU!



Prof. H. Schenk
Micro- and Nano Systems
BTU + Fraunhofer IPMS



Prof. G. Seibold
Computational Physics



Prof. I. Flege
Applied Physics and
Semiconductor Spectroscopy



Prof. P. Weger
Circuit Design



Prof. C. Wenger
Semiconductor Materials
BTU + IHP



Prof. I. Fischer
Experimental Physics and
Functional Materials



Prof. M. Besthorn
Statistical Physics and
Nonlinear Dynamics

International Master Course Physics: Essential Infos

<u>Specialization Phase</u>		Research Phase	
<i>Semester 1</i>	<i>Semester 2</i>	<i>Semester 3</i>	<i>Semester 4</i>
<ul style="list-style-type: none"> • <u>Advanced Seminar</u> (6 LP) • <u>Specialization</u> (18 LP) • Minor <u>Subject</u> (6 LP) 	<ul style="list-style-type: none"> • <u>Advanced Seminar</u> (6 LP) • <u>Specialization</u> (12 LP) • Minor <u>Subject</u> (6 LP) • General Studies (6 LP) 	<p>Research Project (30 LP)</p> <p><i>(<u>Preparation of the research project for the master thesis</u>)</i></p>	<p>Master Thesis (30 LP)</p>
<i>30 CP</i>	<i>30 CP</i>	<i>30 CP</i>	<i>30 CP</i>

International Master Course Physics: Essential Infos

[Timetable:](#)

[Home](#) | [Login](#) |

Modules **Courses**

You are here: [Home](#) ▶ [Timetables for Study Programmes](#)

- Search for Lectures
- **Timetables for Study Programmes**
- Study Programme Plans (List)
- Lectures today
- Online-Evaluation
- ◀ Hide menu

Lectures according to Curricula (Summer 2024)

[Help for Search](#)

Search Criteria

Curricula

from Semester

to Semester

Parallelgroups

Category

Select all

Only explicite terms

An input of **Term limits** has the following effect:
Only lectures with Term limits for the chosen curricula will be taken into consideration.

A lecture will be selected, when there is an intersection between the Term limits of your input and the lecture.

Warning: When you specify Term limits, lectures without Term limits will be excluded from the presentation.

International Master Course Physics: Essential Infos

Timetable: <https://www.math.b-tu.de/perl-ks/planung.cgi>

Lectures of faculty 1 within the summer term 2024

Lehrveranstaltungen der Fakultät 1 im Sommersemester 2024

Übersicht über sämtliche Lehrveranstaltungen

The screenshot shows a light blue form with two dropdown menus. The first dropdown is labeled 'Studiengang' with the word 'course' written below it. It contains the text 'Physics/Master'. The second dropdown is labeled 'Semester' and contains the text '2.Fachsemester'. To the right of the first dropdown is a 'Clear' button. To the right of the second dropdown is a 'Plan' button. A red arrow points from the text 'select: Physics/Master' below to the 'Physics/Master' dropdown. Another red arrow points from the text 'finally click here' below to the 'Plan' button.

select: Physics/Master

finally click here

International Master Course Physics: Essential Infos

When and how to register for the modules?

- Register online within the first 3 weeks of the semester:

<https://www.b-tu.de/en/students/admissions-registrars-office/online-portal>

- You may cancel the registration up to one week before the begin of the examination period

Exception: Modules with continuous assessment (e.g. seminars) can only be cancelled within the first 3 weeks of the semester

see also:

https://www-docs.b-tu.de/studierende/public/files/Vorlesungsverzeichnis/SAP_SoSe_2024.pdf

Entrance to the Online-Portal

Please choose the entrance to the Online-Portal based on your enrolment number

Enrolment number 7-digit	Enrolment number 6-digit
<i>Example 36 33 887</i>	<i>Example 36 30 17</i>
Entrance to the Online-Portal	Entrance to the Online-Portal



International Master Course Physics: Essential Infos

E-learning-platform moodle

<https://www.b-tu.de/elearning/btu/?lang=en>

elearning-btu Course request (Lecturers only) BTU-Services ▾ Help ▾ English (en) ▾

You are not logged in. ([Log in](#))

Willkommen auf der Lernplattform der BTU Cottbus - Senftenberg

Moodle-BTU steht allen Lehrenden und Studierenden der BTU zur Verfügung. Die Lernmanagement-Plattform bietet zahlreiche Möglichkeiten zur digitalen Anreicherung der Hochschullehre, von der Verteilung der Unterrichtsmaterialien über elektronische Tests bis zur Motivation/Aktivierung Studierender.

Log in



International Master Course Physics: Essential Infos

<u>Specialization Phase</u>		Research Phase	
<i>Semester 1</i>	<i>Semester 2</i>	<i>Semester 3</i>	<i>Semester 4</i>
<ul style="list-style-type: none"> • <u>Advanced Seminar</u> (6 LP) • <u>Specialization</u> (18 LP) • Minor <u>Subject</u> (6 LP) 	<ul style="list-style-type: none"> • <u>Advanced Seminar</u> (6 LP) • <u>Specialization</u> (12 LP) • Minor <u>Subject</u> (6 LP) • General Studies (6 LP) 	Research Project (30 LP) <i>(Preparation of the research project for the master thesis)</i>	Master Thesis (30 LP)
<i>30 CP</i>	<i>30 CP</i>	<i>30 CP</i>	<i>30 CP</i>

International Master Course Physics: Essential Infos

Two advanced seminars (6 CP each): Experimental Physics **and** Theoretical Physics

Experimental Physics:

Module description: <https://www.b-tu.de/modul/13012>

A) Applied Spectroscopy

Tuesday 09:15 – 10:45

Room: LG1A 121

Prof. I. Flege (flege@b-tu.de)

check on moodle: <https://www.b-tu.de/elearning/btu/?lang=en>

B) Nanophotonics

Monday 13:45 – 15:15

Room: LG10 212

Prof. I. Fischer (inga.fischer@b-tu.de)

check on moodle: <https://www.b-tu.de/elearning/btu/?lang=en>

International Master Course Physics: Essential Infos

Two advanced seminars (6 CP each): Experimental Physics **and** Theoretical Physics

Experimental Physics:

Module description, click:: [here](#)

C) Functional Material Systems
for Micro Sensors and Actuators

Friday, 07:30 – 09:00 (online only)

Prof. H. Schenk (harald.schenk@imps.fraunhofer.de)

Theoretical Physics:

Module description: <https://www.b-tu.de/modul/13014>

General Topics in Theoretical Physics

Friday, 11:30 – 13:00

Room: HG 2.45

Dr. U. Wulf (ulrich.wulf@b-tu.de)

check on moodle: <https://www.b-tu.de/elearning/btu/?lang=en>

International Master Course Physics: Essential Infos

<u>Specialization Phase</u>		Research Phase	
<i>Semester 1</i>	<i>Semester 2</i>	<i>Semester 3</i>	<i>Semester 4</i>
<ul style="list-style-type: none">• <u>Advanced Seminar</u> (6 LP)• <u>Specialization</u> (18 LP)• <u>Minor Subject</u> (6 LP)	<ul style="list-style-type: none">• <u>Advanced Seminar</u> (6 LP)• <u>Specialization</u> (12 LP)• <u>Minor Subject</u> (6 LP)• <u>General Studies</u> (6 LP)	Research Project (30 LP) <i>(Preparation of the research project for the master thesis)</i>	Master Thesis (30 LP)
30 CP	30 CP	30 CP	30 CP

International Master Course Physics: Essential Infos

- Choose specialization modules with an amount of 18+12 CP's
- Specialization modules have an experimental (and/or) theoretical focus
- Choose at least one from each category.

This semester:

General Theory of Relativity (<https://www.b-tu.de/modul/13010>) Dr. U. Wulf (ulrich.wulf@b-tu.de)

Focus: theo.

Lecture: Tuesday 13:45-15:15, Room HG 2.45

Exercise: Wednesday 11:30 - 13:00, Room 212, LG 10

Principles of superconductivity (<https://www.b-tu.de/modul/13028>) Prof. G. Seibold (seibold@b-tu.de)

Focus: exp./theo.

Lecture: Monday 11:30 - 13:00 (Room HG 2.45) and Thursday 13:45 - 15:15 (Room HG 2.44)

Exercise: Monday 09:15-10:45 (Room HG 0.20)

International Master Course Physics: Essential Infos

Advanced Microsystems. Focus: Microsensors (<https://www.b-tu.de/modul/13752>)

Focus: exp.

Lecture: Wednesday 15:30 - 17:00 and 17:30 - 19:00 (A weeks), Room: HG 0.17

Seminar: Wednesday 13:45 – 15:15 (B-weeks), Room: HG 0.17

Prof. H. Schenk

(harald.schenk@ipms.fraunhofer.de)

Partikelbasierte Mikrofluidik (<https://www.b-tu.de/modul/13773>)

Focus: exp.

Lecture: Wednesday, 13:00 – 15:00 (online and german only)

Please contact Dr. Ruffert for participation

Priv.-Doz. Dr. C. Ruffert

(christine.ruffert@ipms.fraunhofer.de)

Light and Matter, Interaction in Nanostructures (<https://www.b-tu.de/modul/13025>)

Focus: exp.

Lecture: Monday 15:30-17:00, Room HG 0.19

Exercise: Tuesday 11:30-13:00, Room: HG 0.17

Journal Club: Thursday 11:30-13:00, Room: HG 0.19

Prof. I. Fischer (inga.fischer@b-tu.de)

International Master Course Physics: Essential Infos

Surface Physics and 2D materials (<https://www.b-tu.de/modul/13052>)

Focus: exp.

Lecture: Wednesday 09:15-10:45, Room: LG1A/121

Exercices: Thursday. 11:30-13:00, Room: HG 2.44

Prof. I. Flege (flege@b-tu.de)

Computational Physics (<https://www.b-tu.de/modul/13027>)

Focus: theor.

Lecture: Wednesday 13:45-15:15, Room: LG 10/212

Exercise: Wednesday 15:30-17:00, Room: LG 10/212

Dr. S. Richter (richtseb@b-tu.de)

[Summer school: Characterization of Micro- and Nanomaterials: 09.09.2024 – 13.09.2024](#)

Prof. I. Flege (flege@b-tu.de)

Block course with lectures and lab (see [here](#) for the 2023 event)

Registration will be opened in june/july

International Master Course Physics: Essential Infos

<u>Specialization Phase</u>		Research Phase	
<i>Semester 1</i>	<i>Semester 2</i>	<i>Semester 3</i>	<i>Semester 4</i>
<ul style="list-style-type: none"> • <u>Advanced Seminar</u> (6 LP) • <u>Specialization</u> (18 LP) • <u>Minor Subject</u> (6 LP) 	<ul style="list-style-type: none"> • <u>Advanced Seminar</u> (6 LP) • <u>Specialization</u> (12 LP) • <u>Minor Subject</u> (6 LP) • <u>General Studies</u> (6 LP) 	<p>Research Project (30 LP)</p> <p><i>(Preparation of the research project for the master thesis)</i></p>	<p>Master Thesis (30 LP)</p>
<i>30 CP</i>	<i>30 CP</i>	<i>30 CP</i>	<i>30 CP</i>

International Master Course Physics: Essential Infos

Minor subject: Choose two modules within the first 2 semester or internship over 9 weeks

This semester:

Experimental Techniques in Physics supported with AI/ML
(<https://www.b-tu.de/modul/13908>)

Dr. habil. I. Jablonski (ireneusz.jablonski@b-tu.de)

Lecture: Thursday 11:30 – 13:00, Room LG 1A, 121
Lab: Thursday 09:15 – 10:45, Room VG 1C/0.03

Neuromorphic Computing and Engineering (<https://www.b-tu.de/modul/13963>)

Prof. Dr. C. Wenger
(christian.wenger@b-tu.de)

Lecture: Wednesday 15:30 — 17:00, Room HG 0.19

Neural Networks and Learning Theory (<https://www.b-tu.de/modul/11847>)

Prof. K. Meer
(klaus.meer@b-tu.de)

Lecture: Wednesday 11:30 – 13:00, Room ZHG HS B
Exercises: Friday 11:30 – 13:00, Room ZHG HS C

International Master Course Physics: Essential Infos

Highly Porous Materials (<https://www.b-tu.de/modul/13929>)

Lab: Tuesday 09:15 – 10:45 and 11:30 - 13:00, Room LAB 1B/311
Lecture: Video based teaching material

Prof. O. Klepel
(olaf.klepel@b-tu.de)

Image based measurement techniques for fluid mechanics (<https://www.b-tu.de/modul/13518>)

Lecture: Thursday 13:45– 15:15 and 15:30 – 17:00 (B-weeks)
Lab: Thursday 13:15 –15:15 and 15:30 – 17:00 (A-weeks)

Prof. A. Schröder
(andreas.schroeder@b-tu.de)

please contact Prof. Schröder for participation and organizational issues

Introduction to Numerical Linear Algebra (<https://www.b-tu.de/modul/13874>)

Lecture: Tuesday 11:30 – 13:00, Room HG 0.18
Exercises: Wednesday 09:15 –10:45, Room HG 3.35
Friday 11:30 – 13:00, Room HG 3.35

Prof. M. Oevermann
(michael.oevermann@b-tu.de)

International Master Course Physics: Essential Infos

Minor subject: can also be accomplished as 9-week internship

- Internship should be related to the field of physics
- Should be done at an institute outside the university
- Some possibilities are listed on the next pages
- If you have decided on your preferences contact the institutions via email and submit an application
- Mention in your application that you intend to do the internship within the International Physics Master at BTU.

International Master Course Physics: Essential Infos

Minor subject: can also be accomplished as 9-week internship

Possibilities:



[IHP Frankfurt/Oder](#)

Contact: Prof. Christian Wenger
[click here for application](#)



[DESY Zeuthen](#)

Contact: Prof. Wolfgang Lohmann
wolfgang.lohmann@desy.de

International Master Course Physics: Essential Infos

Minor subject: can also be accomplished as 9-week internship

Possibilities:



[Fraunhofer IPMS Dresden](#)

Contact: Prof. Harald Schenk
harald.schenk@ipms.fraunhofer.de



[IKZ Berlin](#)

Contact: Prof. Thomas Schröder
thomas.schroeder@ikz-berlin.de

International Master Course Physics: Essential Infos

Specialization Phase		Research Phase	
Semester 1	Semester 2	Semester 3	Semester 4
<ul style="list-style-type: none"> • <u>Advanced Seminar</u> (6 LP) • <u>Specialization</u> (18 LP) • <u>Minor Subject</u> (6 LP) 	<ul style="list-style-type: none"> • <u>Advanced Seminar</u> (6 LP) • <u>Specialization</u> (12 LP) • <u>Minor Subject</u> (6 LP) • <u>FÜS</u> • <u>General Studies</u> (6 LP) 	<p>Research Project (30 LP)</p> <p><i>(Preparation of the research project for the master thesis)</i></p>	<p>Master Thesis (30 LP)</p>
30 CP	30 CP	30 CP	30 CP

International Master Course Physics: Essential Infos

In case of questions:

Student Council Physics: fsr-physik@b-tu.de

Prof. G. Seibold (seibold@b-tu.de)

Phone: +49 (0)355 693006

[International Relations Office](#)

Enjoy!