

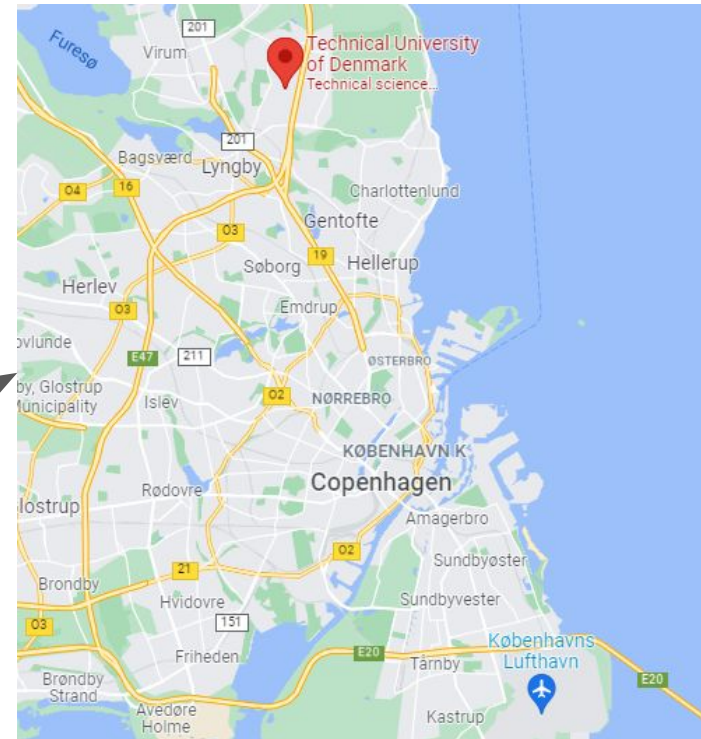
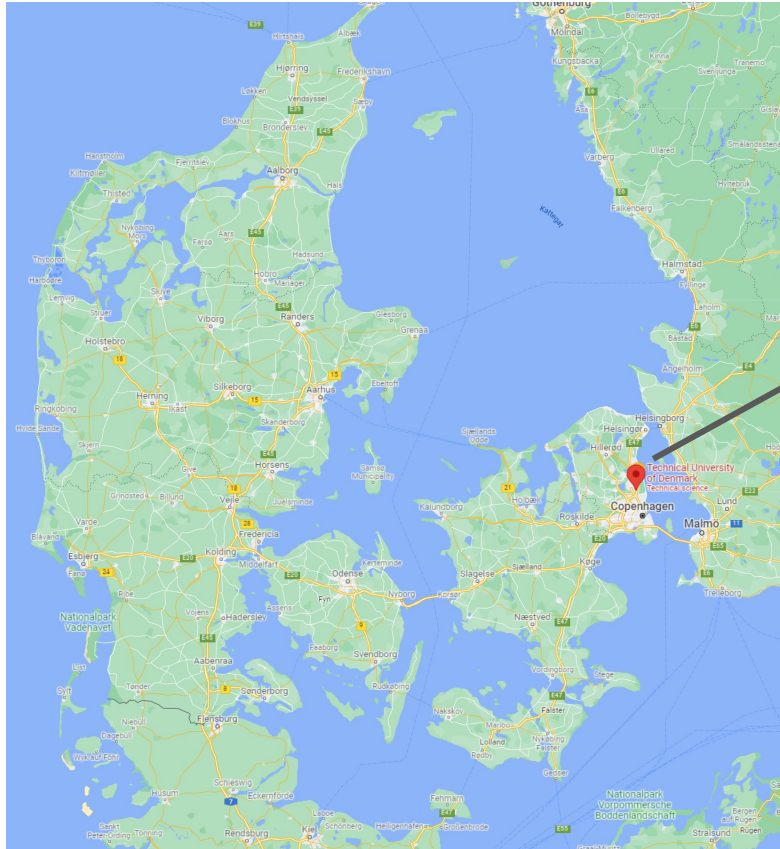
Erasmus at DTU Denmark

1:1 Program

Kerstin Mitterer
Erasmus information event
23.11.2021



Where is DTU?



University in the town Kongens Lyngby,
12 kilometres north of central Copenhagen.

DTU campus



- Teaching and learning facilities
- Library
- Canteen and food-trucks
- Student bars
- Gym, sport fields, running track
- Supermarket

Application process

- 1) Erasmus application
 - Nomination by home institution before applying at DTU
- 2) DTU application
 - Online application form
 - Email the completed form to DTU together with supporting documents:
 - Pdf of online application form
 - Transcript of records from home university
 - English language proficiency certificate (DAAD)
 - Learning Agreement
 - **Must be received before the deadline**
 - for European students:

Autumn semester (September-January)	15 April
Spring semester (February-June)	1 November

<https://www.dtu.dk/english/education/incoming-students/exchange/application-and-deadlines>

DTU academic year

- Two 13-week periods starting around 1. September and 1. February
- Followed by an examination period
- Four three-week periods in January, June, July, and August
- Lecture timetable for the 13-week periods

	Monday	Tuesday	Wednesday	Thursday	Friday
8 am - 12 am	1A	3A	5A	2B	4B
12 am - 1 pm	Break	Break	Break	Break	Break
1 pm - 5 pm	2A	4A	5B	1B	3B
5 pm - 6 pm	Break	Break	Break	Break	Break
6 pm - 10 pm		Evening module*			

TUM-DTU 1:1 program for AEP master

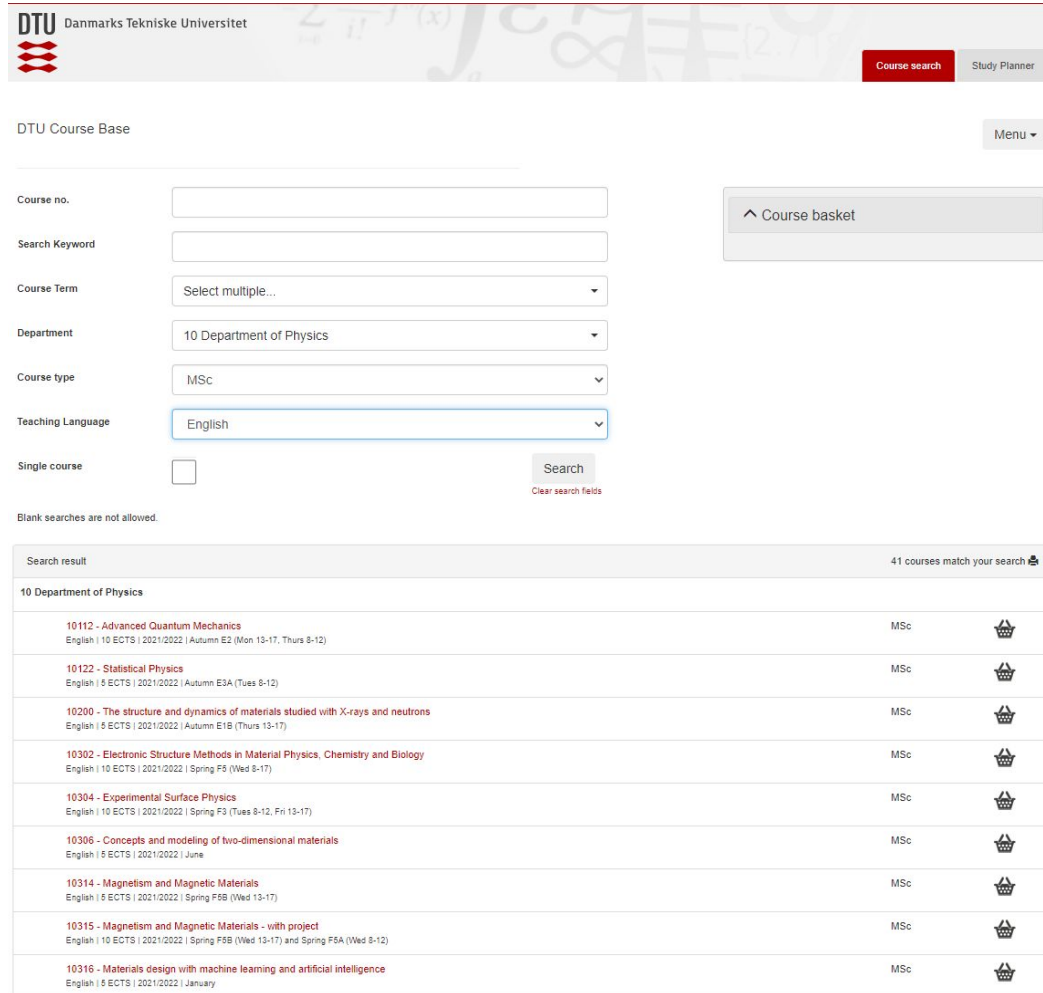
- 1) First year at DTU, second year at TUM

- 2) First year at TUM, second year at DTU
 1. year: Master program *Applied and Engineering Physics* courses at TUM
 2. year: 50 ECTS Master's thesis, 10 ECTS courses from *Technological Specialization* at DTU
 - Main, internal supervisor at TUM
 - External supervisor at DTU

<https://www.ph.tum.de/academics/int/dtu-tum/>

DTU courses

Link zur DTU course base:
<https://kurser.dtu.dk/search>



DTU Danmarks Tekniske Universitet

Course search Study Planner

DTU Course Base Menu

Course no.

Search Keyword

Course Term

Department

Course type

Teaching Language

Single course

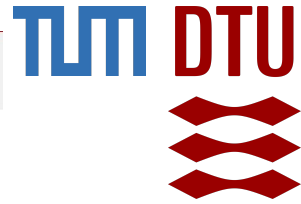
Search Clear search fields

Blank searches are not allowed.

Search result 41 courses match your search

10 Department of Physics

10112 - Advanced Quantum Mechanics English 10 ECTS 2021/2022 Autumn E2 (Mon 13-17, Thurs 8-12)	MSc	
10122 - Statistical Physics English 5 ECTS 2021/2022 Autumn E3A (Tues 8-12)	MSc	
10200 - The structure and dynamics of materials studied with X-rays and neutrons English 5 ECTS 2021/2022 Autumn E1B (Thurs 13-17)	MSc	
10302 - Electronic Structure Methods in Material Physics, Chemistry and Biology English 10 ECTS 2021/2022 Spring F5 (Wed 8-17)	MSc	
10304 - Experimental Surface Physics English 10 ECTS 2021/2022 Spring F3 (Tues 8-12, Fri 13-17)	MSc	
10306 - Concepts and modeling of two-dimensional materials English 5 ECTS 2021/2022 June	MSc	
10314 - Magnetism and Magnetic Materials English 5 ECTS 2021/2022 Spring F5B (Wed 13-17)	MSc	
10315 - Magnetism and Magnetic Materials - with project English 10 ECTS 2021/2022 Spring F5B (Wed 13-17) and Spring F5A (Wed 8-12)	MSc	
10316 - Materials design with machine learning and artificial intelligence English 5 ECTS 2021/2022 January	MSc	



10200 The structure and dynamics of materials studied with X-rays and neutrons

Course information	
Danish title	Materialers struktur og dynamik studeret med røntgen og neutroner
Language of instruction	English
Point(ECTS)	5
Course type	MSc Offered as a single course General competence course, MSc. Eng., Physics and Nanotechnology
Schedule	Autumn E1B (Thurs 13-17)
Location	Campus Lyngby
Scope and form	Lectures, problem sessions.
Duration of Course	13 weeks
Date of examination	E1B
Type of assessment	Oral examination and exercises Overall assessment. A series of written exercises handed in over the duration of the course contribute with a tentative weight of 40% to the final grade.
Evaluation	7 step scale , external examiner
Recommended prerequisites	10102.10303 , 10102 Quantum mechanics and 10303 Condensed Matter Physics and Nanoscale Materials Physics
Responsible	Niels Bech Christensen , Lyngby Campus, Building 307, Ph. (+45) 4525 3206 , nbch@fysik.dtu.dk
Course co-responsible	Martin Meedom Nielsen , Lyngby Campus, Building 307, Ph. (+45) 4525 3226 , mmee@fysik.dtu.dk
Department	10 Department of Physics
Registration Sign up	At the Studyplanner

General course objectives
Detailed understanding of the atoms and molecules and their physical properties of interest. Examples include complex materials, solar energy harvesting and data storage. Broad application within physics, chemistry and biology.
The course introduces a series of experiments for the determination of all relevant structural parameters of the magnetic structure. Furthermore, the course covers degrees of freedom (such as charge, spin and orbital) in detail, either directly in the ultrafast time domain or by imaging creates 3 dimensional maps of the structure. The means to uncover the fundamental function for a wide range of materials.
The overall goal of the course is to provide a thorough introduction to the properties of materials. The importance of new materials is currently being made by the Danish MAX-IV in Lund, Sweden, and in Denmark is strongly involved in the development of new facilities.
Learning objectives
A student who has met the objectives should be able to: <ul style="list-style-type: none"> Describe methods for probing the structure of materials. Discuss how nuclei and electrons contribute to the scattering. Illustrate the principles behind the different scattering techniques. Investigate how X-rays and neutrons are used to study the structure of materials.

- E denotes autumn ('efterår' in Danish)
- F denotes spring ('forår' in Danish)

- Course registration
 - Autumn semester:
 - July and August
 - Spring semester:
 - December and January
- No guarantee for participation in the courses you have registered for → courses may be overbooked or cancelled
- Course registration automatically registers you for the final examination

Grading and Recognition at TUM

Grading Scale:

12		an excellent performance
10		a very good performance
7		a good performance
4		a fair performance
2		an adequate performance
00		an inadequate performance
-3		an unacceptable performance

Recognition at TUM:

12 → 1.0

10 → 1.7

7 → 2.5

4 → 3.2

2 → 4.0



Minimum grade for passing an exam

Finding my Master's project

- Looked up research section of the DTU physics department online
- NEXMAP (Neutron and X-rays for material physics) section
- Group doing Ultrafast Materials Physics
- Contacted the group responsables via email around 9 months before my planned exchange start
- Set-up a Zoom meeting



Danish courses

- Two language schools that offer Danish classes at DTU
 - During the semester - 1 or 2 evenings from 17:30 to 19:45
 - Intensive Summer course in August
- Register online
- Pay deposit of 2000 kr (~ 300€)
→ returned if the exam is passed

The logo for UCplus, featuring the text 'UCplus' in a blue, sans-serif font.The logo for Speak School of Danish, featuring the word 'Speak' in a large, orange, sans-serif font with a speech bubble icon integrated into the letter 'p', and the text 'School of Danish' in a smaller, black, sans-serif font below it.

Accomodation

Student housing → BDTU



<https://bdtu.dk/>

- Invitation to register for student housing by email
- Fill out application form: Application for Exchange students
 - State preference for the different locations
 - Note if you want to live with another student
 - Rental period:
 - 01.08. - 14.01.
 - 01.08. - 31.07.
 - 15.01. - 31.07.
 - 15.01. - 14.01.

Or look for private housing



Linde Allé Student Residence

From 4.550 DKK/month

+ Utilities

Arrival, Living in Denmark

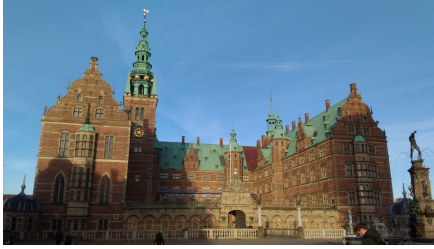
- Once you have accepted your exchange spot at DTU
 - Order your student ID card
 - Check your DTU email regularly
- Apply for and get your European residence permit at SIRI
- Apply for and get your social security number (CPR number)
- Get NemID
- Open a bank account
- Get a rejsekort for public transport
- Living costs: ~ 1000 € per month for essential expenses
- Bring or get a bike

'Yellow card'

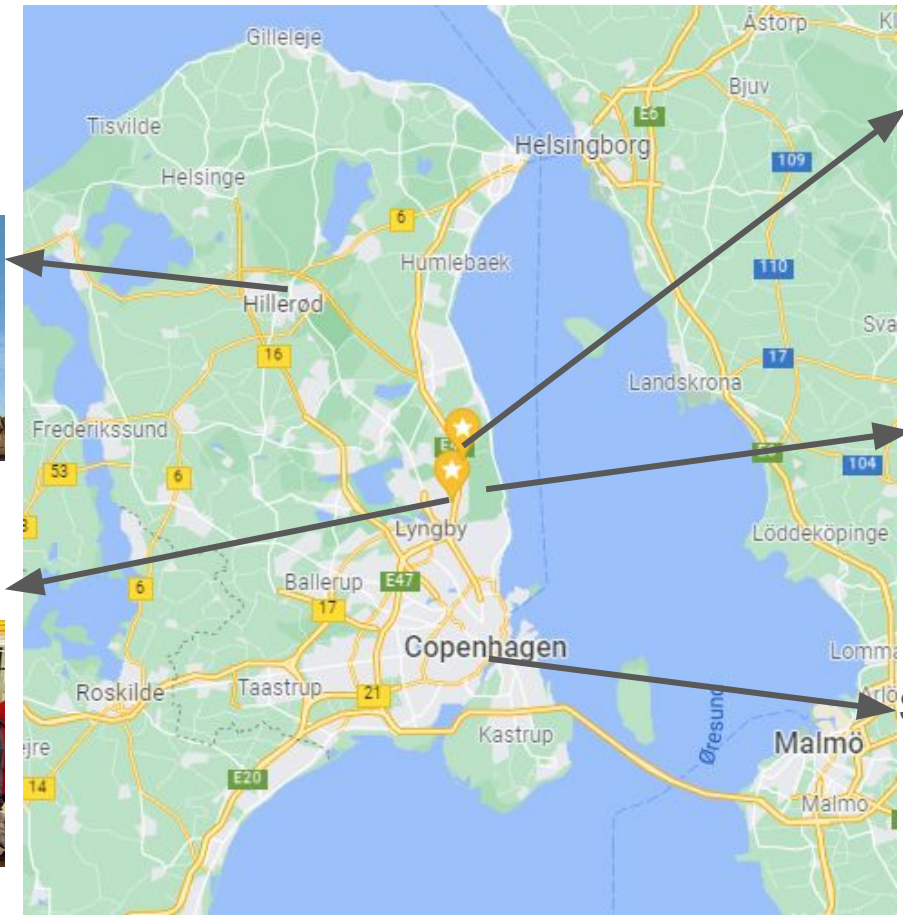


Free time

Frederiksberg slot



Relay run



Barbeque



Deer park and Beach



Sightseeing



Why choose DTU?

Student-staff relations

- Flat hierarchy: Student-staff relations are typically less formal than in other countries
- First name basis between lecturers and students
- Lecturers are easily accessible to students, just come by their office or write them an email

Working in teams

- Coursework and exercises are often completed in groups
- Encourage open exchange of ideas and dialogue

Free coffee for physics students!

