

# Copenhagen Scholars Study Abroad Program

## Program Description & Application Requirements

### Applications Due 3pm, January 25

Email all materials including transcript to [SAapplications@caltech.edu](mailto:SAapplications@caltech.edu) & have references emailed to: [SAreferences@caltech.edu](mailto:SAreferences@caltech.edu)

Please read the following pages carefully as this information is essential for completing an application. You will find most of your questions answered.

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### **Introduction and General Information**

The Copenhagen Scholars Program is a study abroad program in which Caltech students study in Copenhagen, Denmark at **University of Copenhagen (KU or Københavns Universitet)** or at the **Technical University of Denmark (DTU)**.  
*(Please note that **KU** or **Københavns Universitet**, is also known as **UCPH**.)*

The autumn semester at KU and DTU begins in early September, preceded by a week-long orientation at DTU and a one to two day orientation at KU. The term at DTU finishes with exams in late December. At KU Block 1 exams are in November and Block 2 examinations are held in January. KU students need to have the permission of the instructor for the required Block 2 class to complete the examination or project in December.

For students attending KU, there is an optional Intensive Danish Language course taught for three weeks in August if students wish to arrive early. For students attending DTU, there is also an optional Danish Language Course for an additional fee (about €700 or so).

At KU, students can study biology, chemistry, computer science, earth science, mathematics, or physics. At DTU, students can study computer science, engineering, applied sciences or the natural. **If enrolled at KU, students must also take two Danish culture classes.**

Students taking classes at DTU are required to attend the DTU Orientation, which is usually the last week in August. Students enrolled at KU will attend the KU Orientation, which is usually the first week of September.

### **OCTOBER SEMESTER BREAK**

Note that in mid-October, both KU and DTU have a vacation week, but DTU and the KU vacation week may not coincide. This is a great time to travel in Europe. Check the academic calendar for specific dates each year.

### **Location, History, & Student Body**

The **University of Copenhagen (KU)** is located in the heart of the city of Copenhagen. The **Danish Technical University (DTU)** is located about 6 miles (10 km) north of Copenhagen in the town of Lyngby, an affluent town with cafes, restaurants, good shopping and a lovely park. KU is the oldest university in Denmark and was founded in 1479. DTU is comparatively younger, founded in 1829. KU has 34,000 students and 65 departments in six faculties: Life Science, Humanities, Law, Science, Social Sciences and Theology. The faculties are located across Copenhagen in four campus areas. DTU has 15 academic departments in the applied and physical sciences and 6000 students. In the 1960's DTU moved to its new Lyngby campus, which is in a lovely wooded setting and built in a Danish modern style.

### **Room and Board**

Students enrolled at either KU or DTU will be housed in single rooms in campus housing near their respective university. At DTU, students will live in Kampsax Kollegiet. Students at KU will be placed in one of several dorm options but some will require a commute via bike or public transport to the science campus.

In all dorms, students cook for themselves in the well-equipped hall kitchens, plus there are cafeterias on the DTU and KU campus for lunch or breakfast. Cooking is one of the favored ways of socializing in Copenhagen dorms and students enjoy a strong camaraderie with their hallmates through cooking together. Since students are in Copenhagen for about fifteen weeks versus about ten at Caltech, the cost of food will be more due to the longer length of the semester and you should budget appropriately for these costs. Financial Aid recipients may request additional funds for the room supplement and to cover the additional weeks of board in their financial aid application.

### **Academic Program Overview**

Language of Instruction: Courses are taught in either Danish or English depending on the year in which they are taught. First and second year courses are taught in Danish. For third and fourth year courses, professors are required to teach in English if someone is present that does not speak Danish. **Students must take courses taught in English unless they already speak Danish fluently.** On the web page describing each course, under language, it will indicate if the course is always or can be taught in English. If a course only has a Danish description, it is probably not taught in English. Students can email the instructor if the teaching language is unclear.

### **Researching Course Offerings**

**For the University of Copenhagen (KU), go to <http://www.ku.dk>.** Click on **In English**, then click on **International Students**, and then click on **Courses and Academic Information** under **General Information**. Or visit the **Course Catalog**, the KU version of REGIS, at: <https://kurser.ku.dk>

**For the Danish Technical University (DTU)** go to <http://www.dtu.dk/English> . Go to the drop-down menu at the top of the page. Under **Education**, choose **Course Base** (<http://www.dtu.dk/english/Education/Course-base>). Be sure to read the information regarding the DTU block system. All classes are taught in 4-hour blocks, composed of a lecture followed by a problem session. Some classes are taught in two 4-hour blocks. This means that a class meets once per week in one 4-hour block (5 ECTS) or twice a week in two 4-hour blocks (10 ECTS).

**Program participants will take at least two courses in their option or with permission in a related field that counts for credit in their option at their host university, i.e., KU or DTU. Classes for next fall are not yet posted, therefore students should choose classes for their proposal from the current year's fall schedule. The unit system in Denmark (and all of Europe) is based on the European Credit Transfer System (ECTS).**

**Students must choose two to three courses (at least 15 ECTS) from the science or engineering department in your major field of study or in an area for which you can get option elective credit or fulfill an option requirement.**

The degree sequence for Danish universities is a 3 + 2 sequence: 3 years for the undergraduate degree (which most students in the sciences or engineering follow) with 2 more years of study for a master's, resulting in a 5 year degree sequence. Third and fourth year classes are on par with 100 and 200 level classes at Caltech. **In all subjects, students can take courses from either the bachelor's or master's level curriculum** (as long as the class is taught in English); usually first and second year classes are taught in Danish only. You can mix the B.A. and M.A. courses or select all of your courses from one level. Note again that the M.A. level (4<sup>th</sup> year) courses are fairly equivalent to Caltech senior year classes, as Danish students do three years for a B.A. and two additional years for an M.A., the second of which is spent primarily on a thesis.

**You are required to take a minimum of 36 units**, but often will receive more units depending on the specific course load. **You can get option or general credit for your coursework at KU or DTU.** You can get humanities credit for the Danish culture courses.

Note that your grades on the 7-point grading scale of Denmark will not transfer: [http://studies.ku.dk/masters/images/danish\\_grading\\_scale\\_k\\_benhavns\\_universitet.pdf](http://studies.ku.dk/masters/images/danish_grading_scale_k_benhavns_universitet.pdf). The same scale is used at DTU. Your classes are taken for credit only and will show up as **pass or fail** and will not affect your grade point average. However, Caltech does not give credit for failed courses.

## **Block System**

Both KU and DTU use the term “block system” to describe their scheduling systems, however, they are very different. At KU, only the sciences follow their block system. At DTU, all subjects follow the DTU block system.

**KU Block System:** At KU in the sciences (including physical, life, and computer science) the semester is split into two 9-week blocks (although the number of weeks varies each year depending on the schedule, it is usually about 9 weeks per block). Students take either one or two intensively taught science classes per block. A class taken over the entire semester (2 blocks) earns 15 ECTS total or 7.5 ECTS per block. Students should note in their courses lists what block (1 or 2) each course is taught in.

Note well that the second block starts in November and goes through January. Therefore, students mostly take classes in their option at KU in the **first block. Block 2 classes can be taken if** students can obtain written permission from the instructor that they would be able to complete all coursework in December and take an exam or other assessment (oral exam, project, paper, etc.) in December before leaving Copenhagen. In some cases students are required to take one block two course if they are only taking classes at KU.

The social sciences and humanities at KU are taught on a regular semester system with most classes starting the second week of the term and ending in December. They do not have two separate blocks.

**DTU Block System:** The block schedule at DTU is a week-long schedule composed of 10 blocks broken into 4-hour increments, e.g., 8am-noon and 1-5pm. A 5 ECTS class will be taught in a 4-hour block of time and a 10 ECTS class in two 4-hour blocks of time. When reading the course catalog for DTU you should keep the timetable of DTU in mind, so you do not choose courses that are being taught at the same time. Each block is given a number and letter. You can only take **one** course in time table group 1, **one** course in time table group 2 and so on, e.g., class schedule E3 = E3A+E3B. Remember to check if the courses are taught in the right semester: E = autumn semester and F = spring semester. While this may sound complicated, the DTU course catalog site (link above) has an easy course selection tool that indicates if you have chosen classes whose schedules conflict.

**Further information on the DTU and KU block systems can be found in the Semester Dates and Academic Structure section of this handout.**

## **CHOOSING CLASSES AT KU OR DTU**

Students can take courses in any faculty at KU or DTU if they meet the prerequisites and exchange students are allowed to take the class. Also note that just as at Caltech, classes for the next academic year are not yet set or listed. Students should choose classes for the Study Abroad Application based on the current year’s fall course offerings at KU or DTU. **With the permission of the Director of Study Abroad,**

**students will be allowed to change classes when the next fall's classes are listed in the late spring or early summer.**

**Students must choose to enroll at either KU or DTU.** All students, including those enrolled at DTU, will take Danish culture classes at KU (**one** course if enrolled at DTU and **two** courses if enrolled at KU).

**Life Sciences at KU:** KU's Faculty of Life Sciences has an interesting range of classes for undergraduates including: veterinary science, plant sciences, food sciences, natural resources, and areas of biology that Caltech students find in Caltech's Biology Option. Some classes in the Life Sciences may be of particular interest to biology and pre-med students. For the class schedule for the Faculty of Life Sciences and the Faculty of Science go to: <http://www.science.ku.dk/english/>. Students should also look at the molecular biomedicine classes in the Physical Sciences Faculty website: <http://sis.ku.dk/kurser/lptree.aspx?xnr=52534&sprog=2&dybde=3&xslt=classic> .

**Physical Sciences at KU: Read about the Faculty of Science at** <http://www.science.ku.dk/english/>. You can get a list of classes taught in the fall at <https://kurser.ku.dk>

**For some options, such as juniors going abroad in chemistry, students tend to find a better course fit for required junior classes at DTU:**

<http://www.kurser.dtu.dk/search.aspx?menulanguage=en-gb>

**Applied Sciences, Engineering and Sciences at DTU: DTU teaches a full range of classes in the applied sciences, sciences, engineering and applied mathematics.** As mentioned, students in fields that are not typically thought of as applied (e.g., chemistry and physics) may well find good class offerings at DTU. **DTU has excellent offerings in the environmental sciences and interesting options for engineers such as Ship Design:** <http://www.kurser.dtu.dk/41271.aspx?menulanguage=en-gb> .

**Classes in engineering that you would never find at Caltech (as well as ones that you can take at CIT) can be found at DTU:**

<http://www.kurser.dtu.dk/search.aspx?menulanguage=en-gb> . Scroll down and click on Course Catalog after you read the information on the structure of the block system.

### **Danish Culture Course**

All students studying at KU must take either the course on **Danish Culture, a cross discipline course taught in English, or an alternative humanities class taught in English. This includes such courses as Danish Film, the Danish Monarchy, Nordic Mythology, or the Vikings. Course offerings may vary by year:**

<http://danishculturecourses.ku.dk/> and <http://studies.ku.dk/exchange/course-information/cross-discipline/>. This is required for all students whose main department is at KU since the block system at KU

limits students to a maximum of two classes in their option or a related subject.

For all students taking a Danish culture or equivalent course, they must write the longer required final term paper and it must be completed prior to leaving KU to get Caltech credit. We do not accept any course for credit solely on the basis of attendance. Students may take other classes in the social science or humanities taught in English (unless they are fluent in written and spoken Danish) taught in other departments provided they have the required prerequisite background: <http://humanities.ku.dk/departments/>. Also, look at the African Studies Classes and at classes in the Social Sciences Department.

### **Semester Dates and Academic Structure**

#### **Copenhagen University (KU)**

**For exchange students, the KU semester runs from the first week of September through mid-December. Students arrive in Copenhagen at the end of August to participate in the "Start Study Week", and orientation organized by the Faculty of Science. KU also has an orientation that students are required to attend.** Caltech students take exams at the end of Block 1 for science courses. If they are given permission by the instructor, they can take one class in Block 2. Exams are taken in December or papers are due for classes not on the block schedule, e.g. the Danish culture, humanities, and economics classes.

#### **Number of Courses/Units**

**Students enrolled at KU must take exactly four classes for 30 ECTS (7.5 ECTS each). In the sciences, computer sciences or mathematics** at KU, students choose 15 ECTS (European Credit Transfer System) in their option or a related field. Due to the structure of the block system, students choose TWO 7.5 ECTS courses, which will receive 9 Caltech units each. All students will also take two Danish culture courses or another humanities class in the fall for 9 units each, and (if they are primarily taking classes at KU). Students may not take courses that are 15 ECTS.

**Note again that students are required to take one science course in Block 2 at KU.**

At KU, to prevent time conflicts, the 15 ECTS and 7.5 ECTS courses are taught in designated time periods. The 7.5 ECTS point courses are scheduled in one of three "Schema Groups" designated as A, B, or C. If electing to take two 7.5 ECTS point courses, they must be chosen from two different Schema Groups below. Students cannot choose two courses taught in the same Schema Group – this is a time conflict. Note that the Danish culture courses should not conflict with either the 15 or 7.5 ECTS point courses in the sciences. Go to <https://kurser.ku.dk>

## **KU Schema Groups – Block and Timetable Groups**

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00- 10:00	B <sub>1</sub>	A <sub>1</sub>	C <sub>1</sub>	A <sub>1</sub>	B <sub>1</sub>
10:00- 12:00		A <sub>2</sub>			B <sub>2</sub>
Lunch Break					
13:00- 15:00	C <sub>1</sub>	B <sub>2</sub>	C <sub>2</sub>	A <sub>2</sub>	D
15:00- 17:00	C <sub>2</sub>				

Source: <http://www.science.ku.dk/english/student-life/studying-at-the-faculty/academic-calendar/>

## **Danish Technical University**

**Students at DTU are limited to 30 ECTS, not including the Danish culture course at KU. The DTU semester runs from the beginning of September to mid December each year and the start of the term is preceded by a required week of orientation the last week of August.** The end of lectures is followed by a weeklong final examination period. Caltech students take all required final exams during the exam period. Go to <https://www.dtu.dk/english/education/student-guide/studying-at-dtu/academic-calendar> to access the academic calendar.

### **DTU Courses and Timetable:**

DTU courses are taught on a semester system, but the academic week is organized by teaching block times. Most classes meet once a week for several hours. All students at DTU must take a fall Danish culture course at KU as described previously. A 10 ECTS point course is equal to 9-12 Caltech units and a 5 ECTS point course is equal to 9 Caltech units. A 5 ECTS point course is equivalent to about 60% of the workload of a 10 ECTS point course. Therefore, you are advised to take at least one 10 ECTS point course. When reading the DTU course catalog, you should keep the timetable of DTU in mind, so that you don't choose courses that are being taught at the same time. The course catalog URL is: <http://kurser.dtu.dk/search>

**Timetable at DTU:** The week is divided into 10 blocks. A 5-point ECTS meets for one block per week, e.g. 1A, while a 10-point ECTS meets for 2 blocks per week, e.g. 1A and 1B. You can only take **one** course in timetable group 1, **one** course in timetable group 2 and so on. (e.g., Class schedule E3 = E3A+E3B). Also remember to check if the courses are taught in the right semester: E = autumn semester and F = spring semester. Caltech students can only take autumn courses.

**DTU Timetable –Block System**

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8-12	1A	3A	5A	2B	4B
12-13	Pause	Pause	Pause	Pause	Pause
13-17	2A	4A	5B	1B	3B

The timetable is the same for both autumn and spring. Under the schedule in the course description there might be written E or F. E means autumn (efterår) and F means spring (forår).

If in the course catalogue a course is said to take place in E3, then this means that the course is being taught during autumn in BOTH module 3A AND 3B. That would be Tuesday from 8-12 and Friday 13-17. F3 then of course means that the course is being taught in spring. If in the course catalogue a course is said to take place in E3A, then this means that the course is being taught during autumn, ONLY in module 3A and NOT 3B. This would be Tuesday from 8-12.

**ECTS POINT SYSTEM OVERVIEW DTU:**

**5 ECTS courses are awarded 9 units of Caltech credit**

**10 ECTS courses are awarded 9-12 to units of Caltech credit**

**KU:**

7.5 ECTS courses are awarded 9 units of Caltech credits

15 ECTS courses are not allowed

Economics, management, or humanities/social science classes are awarded 9 units.

**All CIT units are contingent upon CIT professor approval.**