Copenhagen Scholars Study Abroad Program
Program Description & Application Requirements
Applications Due 3pm, January 25

Email all materials including transcript to SAapplications@caltech.edu **& have references emailed to:** 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.

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 (UCPH or Københavns Universitet)** or at the **Technical University of Denmark (DTU).**

(Please note that UCPH is also known as KU or **Københavns Universitet***.)*

The autumn semester at UCPH and DTU begins in early September, preceded by a week-long orientation at DTU and a one to two day orientation at UCPH. The term at DTU finishes with exams in late December. At UCPH Block 1 exams are in November and Block 2 examininations are held in January. UCPH 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 UCPH, 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 UCPH, 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 UCPH, students must also take a Danish culture class. All students must take the Danish Language class taught at UCPH.

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

OCTOBER SEMESTER BREAK

Note that in mid-October, both UCPH and DTU have a vacation week, but DTU and the UCPH 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 (**UCPH**)** 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. UCPH is the oldest university in Denmark and was founded in 1479. DTU is comparatively younger, founded in 1829. UCPH 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 UCPH 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 UCPH 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 UCPH 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 (UCPH), 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 UCPH version of REGIS, at: https://kurser.ku.dk

For the <u>Danish Technical University (DTU)</u> 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. The 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., UCPH 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 (4th 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 UCPH or DTU.** You can get humanities credit for the Danish
Language Course and 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.p
df**.** 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 UCPH and DTU use the term "block system" to describe their scheduling systems, however, they are very different. At UCPH, only the sciences follow their block system. AT DTU, all subjects follow the DTU block system.

UCPH Block System: At UCPH 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 UCPH 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 UCPH.

The social sciences and humanities at UCPH 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 UCPH block systems can be found in the Semester Dates and Academic Structure section of this handout.

CHOOSING CLASSES AT UCPH OR DTU

Students can take courses in any faculty at UCPH 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 UCPH 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 UCPH or DTU. All students, including those enrolled at DTU, will take the Danish Language class at UCPH.

Life Sciences at UCPH: UCPH'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 UCPH: 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 Language Course (required for all students):

A language course in beginning Danish is required for all Caltech students whether they study at UCPH or DTU:
https://nors.ku.dk/english/education/danish_courses/courses/danish_semester_courses/.

This is in addition to the optional August Intensive Danish Language Course. If a student already speaks Danish, he/she can substitute another humanities class.

The Danish Language course is taught at the humanities campus of UCPH, and meets in the late afternoon or evenings for 2 1/2 hours twice a week. There are a number of times and days when Danish is taught. **The Danish Culture course (for those enrolled at UCPH) is also at the humanities campus and meets on Thursdays from 1 - 3pm.** Field trips can take place on weekends.

Danish Culture Course

In addition to the Danish Language Course, all students studying at UCPH 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 UCPH since the block system at UCPH limits students to a maximum of two classes in their option or a related subject.

For all students taking Danish Culture, they must write the longer required final term paper and it must be completed prior to leaving UCPH 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 (UCPH)

For exchange students, the UCPH 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. UCPH 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 required Danish Language class, the Danish Culture, Humanities, and Economics classes.

Number of Courses/Units

Students enrolled at UCPH must take exactly four classes for 30 ECTS (7.5 ECTS each). In the sciences, computer sciences or mathematics at UCPH, 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 the Danish Language class* in the fall, valued at 9 units, and (if they are primarily taking classes at UCPH) the 9 unit Danish Culture class or another humanities class. Students may not take courses that are 15 ECTS.

*Danish Class: https://nors.ku.dk/english/education/danish_courses/courses/danish_semester_courses/

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

At UCPH, 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 Language and Culture Courses should not conflict with either the 15 or 7.5 ECTS point courses in the sciences. Go to https://kurser.ku.dk

UCPH Schema Groups – Block and Timetable Groups

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00- 10:00	B_1	A_1	C_1	A_1	B_1
10:00- 12:00		A_2			B_2
Lunch Break					
13:00- 15:00	C_1	B_2	C_2	A_2	D
15:00- 17:00	C_2				

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 Language Course at UCPH. 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 the fall Danish Language Course at UCPH 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 ETCS 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

UCPH:

7.5 ECTS courses are awarded 9 units of Caltech credit
15 ECTS courses are not allowed
The 7.5 ECTS language course is awarded 9 units.

(This does not include the three-week August Danish language course, which does not receive credit)

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

All CIT units are contingent upon CIT professor approval.