

THE UNIVERSITY

of NORTH CAROLINA

of CHAPEL HILL

COLLEGE OF ARTS & SCIENCES

STUDY ABROAD OFFICE

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January 15, 2015

Administrative Board of the College of Arts & Sciences Office of General Education CB #3510 300 Steele Building UNC-CH

#### **UNC Science in Scandinavia- Summer**

#### Dear Colleagues:

The Department of Chemistry and the Study Abroad Office are submitting for your approval a proposal to establish a faculty-led summer study abroad program in Lund, Sweden, beginning in 2016 and continuing annually.

### Program overview

This five-week summer study abroad program will be led by a UNC Chemistry professor and hosted by Lund University (LU) in Sweden. Participants will be enrolled in three courses: CHEM 241 Analytical Methods (2 UNC credits), CHEM 396 Chemistry of Biomedical Implants (3 UNC credits), and Introductory Swedish for Exchange Students and Introduction to Scandinavian Culture and Society (3 ECTS=2 UNC credits).

#### Program rationale

By teaching science courses in an international context, this program will contribute to the university's objective of offering more international opportunities to science students. The program's core course, CHEM 241, is a heavily enrolled course required for the Chemistry major and the MCAT. The program will give students access to this course in a unique small group and international setting. CHEM 396 and an LU-taught module will offer a connection between the science curriculum and the host city and culture, giving students an international perspective to science.

The Study Abroad Office has reported an increased demand for study abroad programs designed for science majors without a language requirement. Scandinavia is an ideal location for such a program because of the prevalence of English. Swedes have the highest proficiency in English as a second language in the world- 90% of the population speaks English- allowing students to have a unique European experience without language barriers.

Lund is also an attractive destination for such a program because it is a center for high tech companies in the medical technology, pharmaceuticals and biotechnology industries. Some examples include Astra Zeneca, Active Biotech, Gambro, ST-Ericsson, and Sony Mobile Communications. Analogous to the Research Triangle Park, the Ideon Medicon Village in Lund houses high tech companies with ties to the university. The Lund University main campus and hospital, the Lund Institute of Technology (i.e., engineering school), and Ideon have extensive research facilities that would enable UNC students to learn about the application of chemistry in the development of pharmaceutics and medical devices while studying in Sweden.

#### **Lund University**

Lund University (LU), a Transatlantic Science Student Exchange Program (TASSEP) consortium member and one of UNC's bilateral student exchange partners, will serve as the host intuition. LU is one of the largest, oldest, and broadest universities in Scandinavia and is consistently ranked among the world's top 100 universities. LU is divided into eight faculties, with the Faculty of Science housing the Chemistry Department. More information about LU can be found on their website: http://www.lunduniversity.lu.se/ and in the appendix.

LU's main campus is in Lund, where the program will be based. With a population around 100,000, Lund is located in Southern Sweden, just across the ORESUND Bridge from Copenhagen, Denmark. Lund is a student-friendly city easily navigated by bike or foot. Though the native language is Swedish, the use of English is wide-spread, especially at the university where many courses are taught in English.

#### **Resident Director**

Prof. Mark Schoenfisch will serve as the UNC Resident Director in 2016 and 2017. Prof. Schoenfisch's CV is provided in the appendix.

Other UNC Chemistry faculty members (e.g., Prof. Gary Glish) have expressed commitment to serve as the resident director in following years. Allowing Chemistry faculty to rotate years will give others in the department an opportunity to participate in the program and will allow the program to be sustainable.

#### Program content

The program will include two UNC courses: CHEM 241 Analytical Methods (2 UNC credits) and CHEM 396 Chemistry of Biomedical Implants (3 UNC credits) for which participants will earn UNC graded credit. The UNC Resident Director will undertake the bulk of teaching and all examination for these courses, and there will be guest lectures drawing upon faculty from Lund University and contacts in local industry. Syllabi are provided in the appendix.

The program will also include an LU-taught module: Introductory Swedish for Exchange Students and Introduction to Scandinavian Culture and Society (3 ECTS=2 UNC credits), which will be taught on Fridays by LU faculty from the Faculty of Humanities. This module will be based on courses offered to exchange students at LU during the academic year (course description and syllabi provided in the appendix) and will be modified specifically for this UNC summer program. The aim of the module is to provide students with "survival" Swedish language skills and a general overview of Scandinavian history and culture. The module will include at least four related cultural activities. Students will be guided to reflect upon the influence of Scandinavian society on science and vice versa. Participants will be assessed on a final paper and given an LU transcript. Students earning the equivalent of a C or better will earn two transfer credits at UNC.

### Program dates

The proposed program dates for 2016 are May 14-June 18 (five weeks). The academic year at LU will still be underway during this time frame, allowing the program to integrate into the academic and social life of the university.

## Enrollment

The program will accept applications from UNC and non-UNC undergraduate students, with priority given to UNC students. Target program enrollment is 20 participants. Applicants must have a minimum GPA of 2.7 and at least rising sophomore status. CHEM 101 and 102 are pre-requisites. There is not a language requirement on this program, just as there is not a language requirement for students going to LU for the semester exchange program.

As the academic year will still be in session in Sweden, LU will recruit students to participate in the courses as well. Up to 20 additional students from LU can be accommodated in CHEM 241. CHEM 396 will accommodate only up to 5 more to keep the class size amenable for optimal student discussion and participation. Having both LU and UNC students in the courses will allow for a more immersive and intercultural experience.

#### On-site logistics

LU adds both academic strength to the program through guest lectures and logistical support. LU regularly arranges customizable faculty-led study abroad programs and has previously hosted a UNC Burch Field Research Seminar in 2013.

LU will offer support for all stages and all aspects of the program. LU staff will assist with program planning, arrange arrival and orientation services, participate in social events, and help monitor safety, security, and welfare of the faculty and students throughout the program.

LU will provide necessary facilities including classroom space and housing. Students will live alongside Swedish or other international students in single rooms with a shared living room and fully equipped kitchen. LU will also provide housing for the Resident Director in one of the university guest houses.

More information LU's services offered to faculty-led study abroad programs is provided in the appendix.

Bob Miles, Associate Dean for Study Abroad and International Exchanges, conducted a site visit to LU in September 2011. Emily Marlton, Northern Europe and Oceania Program Director in the Study Abroad Office, has met with counterparts from LU at various conferences to discuss the exchange partnership and the development of a faculty-led summer program. She also hosted a visit to UNC by an LU delegation which included a meeting with the Chemistry Department. Emily and Mark Schoenfisch will conduct a site visit to Lund in April 2015 to further review the on-site logistics and to solidify academic and industrial connections.

## Safety and Health

According to the US Department of State website, Sweden is a highly developed, stable democracy with a modern economy. Sweden has a low crime rate, and most crimes involve the theft of personal property from cars or residences or in public areas. There are no immediate health concerns in Sweden. Medical care in Sweden is comparable to that found in the US. Students will be enrolled in international accident and health insurance through HTH Worldwide (www.hthstudents.com) for the duration of the program.

We are happy to provide any further information that you may need to evaluate this proposal.

Yours sincerely,

Dr. Valerie Ashby, Professor and Chair, Department of Chemistry

4.10.15

Date

Dr. Robert Miles, Associate Dean: Study Abroad and International Exchanges

Date

## Chemistry 396: "Chemistry of Biomedical Implants"

Summer 2016 MTWR, 11:00am-1:00pm

**Professor:** 

Dr. Mark Schoenfisch

Office:
Office hours:

To be determined
To be determined

Email:

schoenfisch@unc.edu

Recent scientific advances have lead to major innovations in medicine and patient care. While biomedical implants improve the quality of life of many individuals, the true utility of most devices remains rather limited due to insufficient biocompatibility. This special topics-seminar format course will focus on the underlying chemical composition and physical properties of materials used to fabricate medical implants. We will focus on how such properties impact cost, physiological response, and intended utility. Readings and discussions will form the basis for developing a questioning mind and an objective attitude toward chemistry. Ethical issues and legal aspects related to the development of new biomaterials will also be discussed.

## Class goals:

By the end of the class you should be able to:

- Define and explain the host responses to biomedical devices/materials used in the human body including the foreign body response, thrombosis, and restenosis.
- Use library resources to find relevant scientific publications.
- Read scientific articles, analyze data, form conclusions, and propose future research.
- Research and explain ailments that require the use of devices to improve survival and/or quality of life.
- Assess the role of chemical and biomedical engineering techniques to improve the performance of biomedical implants.
- Present research findings orally via short presentations and in written reports.

## Example topics to be covered:

Contact lens, Intravascular gas sensor, Urinary catheter, Intravascular catheter, Cardiac stent, Artificial hip/knee, Bone screws/pins, Neurostimulator, Breast implant, Intracortical electrode, Cochlear implant, Spinal fusion hardware (e.g., rods, discs), Artificial heart/Ventricular assist device, Artificial lung, Birth control implant, Intraocular lens, Cardiac valve, Endosseous implant (dental implant), Implantable cardioverter defibrillator, Drug-eluting pump, Implanted surgical mesh, Chemotherapy port

## Required texts (consider purchasing a Kindle as it may be cost effective):

- 1. Surely You're Joking, Mr. Feynman! by Richard Feynman
- 2. Every Second Counts: The Race to Transplant the First Human Heart by Donald McRae
- 3. Napoleon's Buttons: by Penny Le Couteur and Jay Burreson
- 4. Cantor's Dilemma: by Carl Djerassi

## Attendance:

Graded work will be based on the information covered and assigned during class and in-class discussions. It is therefore necessary to attend all classes. Some of what we do in class will require the use of your laptop. If you miss a class, inform me as soon as possible.

Class participation:

Since this is a seminar-like course, a large portion of your grade will be based on active participation in class discussions. You should prepare for each class by reading, thinking, researching, and being ready to discuss the topics of the day. You may be called on at random to answer questions or lead a discussion.

## Grading:

Class participation/discussion 25% Written assignments 25% Oral presentation 25% Final report 25%

Letter grades will be determined based on your overall percentage of earned points with grade separations every 10% (e.g., A > 90%, B > 80%, C > 70%, D > 60% and F < 60%. Plus and minuses will be used in borderline cases.

Class discussion: The class discussion portion of your grade will be based on your participation and discussion in class. Thus, you must attend class, talk, share, and actively participate to do well in this course!

Written assignments: Written assignments and critiques are to be typed using Microsoft Word or equivalent with the following parameters: 12 pt Times New Roman font, 1-inch margins, and 1.5 line spacing. All written assignments should be submitted on the given due date. Assignments turned in late will be deducted 10% of the total possible points for each day late.

- Upon completion of a book, you will write a summary and analysis of the book (e.g., a book report).
- Other written assignments will be given during the semester either related to the books or on other topics/readings.

Research projects: You will be assigned a major research project that is relevant to the field of biomedical implants. You will be required to conduct research on the topic and present your findings in an oral presentation. Your research project will culminate with an end-of-semester formal written report that includes the following elements: introduction to your medical device (including function), history (brief), use statistics, problems with utility (with statistics), and up & coming potential solutions to one or two of the major problems based on approaches involving chemistry. Your presentation and report will be graded on clarity, depth and quality.

## Graded assignments:

4 of 5 book reports (you may skip reviewing one of the books of your choice)

2 other written assignments

1 oral presentation

1 final 12-page report on your research project

Class attendance and participation

## Tentative reading schedule:

A tentative reading assignment schedule for the semester will be posted in Sakai.

#### Honor code:

Policy adopted by the faculty of the Department of Chemistry on September 9, 1977:

"Since all graded work (including homework to be collected, quizzes, papers, mid-term examinations, final examinations, research proposals, laboratory results, reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of collaboration is allowed. This statement is not intended to discourage students form studying together or working together on assignments which are not to be collected."

## Chemistry 241: Analytical Methods Summer 2016 MTWR, 9:00-10:15am

The goal of this class is to introduce you to the major fundamentals behind making chemical measurements: 1) chemical equilibrium; 2) methods for separating chemicals; 3) the use of light absorption for chemical analysis; and, 4) bioanalytical sensors. The reading material consists of a beginning analytical chemistry text and occasional external sources.

Course Prerequisite: A grade of C- or better in Chemistry 102 or equivalent. Note: it is an honor code violation to be enrolled in a course while lacking the proper pre- and co-requisites.

Professor:

Dr. Mark Schoenfisch

Office:

To be determined

Help Hours: Email:

To be determined schoenfisch@unc.edu

Required Textbook: Quantitative Chemical Analysis (Custom 8<sup>th</sup> Edition) by Daniel C. Harris

Recommended Textbook: Solutions Manual for Quantitative Chemical Analysis, 8th Edition

Attendance: All graded work (i.e., exams) will be based on the information covered and assigned during class. It is therefore to your advantage to attend all lectures. Please turn off cell phones before entering class.

Class preparation: You should prepare for each lecture by reading the relevant chapter before class (see lecture schedule).

Class website: The website for this class is located at https://sakai.unc.edu. Check it daily for announcements and relevant course materials (e.g., homework, exam keys, etc.).

Homework: Homework will be assigned but not collected or graded. You should keep a separate notebook for working assigned and extra problems. Do the assigned homework as a minimum amount of work to prepare for exams. Problem solving is a major tool used to learn the material in this course and assess your comprehension. The assigned problems will help strengthen your understanding of the principles introduced in the lecture. Working with other students on homework is allowed and encouraged. However, you are responsible for making sure you understand the material.

Some Advice: Work extra chapter problems in addition to those assigned in class. Keep in mind that the more problems you do, the better you will understand the material. Be sure to work problems without the aid of lecture notes or other references (e.g., solutions manual) so that you can properly assess how well you understand the material. Do problems after every lecture...do not put off working the problems as they are meant to reinforce your understanding of the lecture material. Try to work problems with as little aid from the solution manual as possible. If you consistently find yourself turning to the solution manual to work problems, then you aren't doing enough pre- and post-class reading or studying class notes. Try to avoid working problems to just get an answer; focus on understanding the concepts behind each problem.

Exams: Three-one hour exams (20% each), and a final exam (minimum 40%, maximum 100% see Grading below). The Final Exam is cumulative. Exams will be given only during regular class time in Chapman 211. Make-ups and/or alternate times/locations will not be allowed.

Grading: Your overall grade will be determined based on either your overall percentage of total points earned (three exams and final), or only your percentage of points earned solely on the final exam, whichever is greater. Final grades will be as follows: A: 90-100%; B: 80-89; C: 70-79; D: 60-69; F: <60, with pluses and minuses given for borderline cases.

NOTE: The Final Exam is on Thursday, June 16 from 9:00am-12:00noon.

## Tentative lecture schedule with Harris Chapters to be read prior to class:

Week of:	Monday	Tuesday	Wednesday	Thursday	Friday
May 16		Intro/22	22	23	No class
May 23	24	25	8	Exam 1 (Chpts 22-25)	No class
May 30	9	9	10	17	No class
June 6	17	Exam 2 (Chpts 8-10)	17/18-1	19	No class
June 13	19	Exam 3 (Chpts 17-19)	Biosensors	Biosensors	No class

## FINAL EXAM: Thursday, June 16 at 9am

Policy adopted by the faculty of the Department of Chemistry on September 9, 1977:

"Since all graded work (including homework to be collected, quizzes, papers, mid-term examinations, final examinations, research proposals, laboratory results, reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of collaboration is allowed. This statement is not intended to discourage students from studying together or working together on assignments which are not to be collected"



## Faculties of Humanities and Theology

# SUSA11, Swedish: Introductory Course for Exchange Students 1, 3 credits

Svenska: Introduktionskurs för utbytesstudenter 1, 3 högskolepoäng First Cycle / Grundnivå

# Details of approval

The syllabus was approved by the programmes director by delegation from the prodean for first- and second-cycle studies on 2012-10-16 to be valid from 2012-10-16, spring semester 2013.

## General Information

Subject: Swedish

The course is offered as an internal course for exchange students at Lund University. It cannot be included as part of a degree from a Swedish university or university college.

Language of instruction: English and Swedish

Main field of studies

Depth of study relative to the degree

requirements

G1N, First cycle, has only upper-secondary

level entry requirements

GXX, First cycle, in-depth level of the

course cannot be classified

# Learning outcomes

On completion of the course the student shall

# Knowledge and understanding

- be able to account for the word order in simple main clauses
- be able to describe in general some of the fundamental rules and laws governing academic studies and life in Sweden

## Competence and skills

- be able to understand and utilise simple and frequently used words and phrases in Swedish
- be able to ask and respond to very simple question from a known set
- be able to read and find required information in very short and simple texts with highly frequent words

## Judgement and approach

 be able to take a position to the norms currently governing academic studies in Sweden.

## Course content

The course consists of teaching and practical exercises in Swedish language proficiency. Students acquire knowledge of everyday phrases and vocabulary so as to be able to communicate in very simple situations. Students also gain insights into Swedish grammar. Exercises in pronunciation are an important element of the course as is providing students with information on studying and living in Sweden.

# Course design

Teaching consists of lectures and exercises.

## Assessment

The assessment is based on a written exam.

## Grades

Marking scale: Fail, E, D, C, B, A.

The highest grade is A and the lowest passing grade is E. The grade for a non-passing result is Fail.

# Entry requirements

Completed secondary education and courses corresponding to the following Swedish Upper Secondary School Programs: Mathematics A and Civics A. English A (basic) language proficiency

## Further information

- 1. Department in charge: Centre for Languages and Literature, Lund University.
- 2. The course replaces SUSA01.
- 3. To be admitted to the course, students must fulfil the general entry requirements for higher education studies in Sweden, except the requirement of proficiency in Swedish.

4. For further details see the current registration information and other relevant documentation.

## SASH55 An Introduction to Scandinavian Culture and Society, 7.5 credits

Emphasis is placed on certain key periods in order to provide students with an understanding of the common features in the development of the cultural and social systems found in Scandinavia (Sweden, Denmark, Norway and Finland). The course begins by examining Scandinavia in the Middle Ages. Influences from, in particular, France, Germany, England and the USA are discussed, as is the development of the national characteristics particular to the various countries of Scandinavia. There is a special focus on the development of democracy from the late 19th century to the present day. Examples are given of this historical process with literature, art, music, theatre, film and the history of ideas. The course is of an interdisciplinary nature.

## On completion of the course the student shall:

be able to identify basic concepts, ideas and terminology within the subject area of Scandinavian culture

be able to give a basic account of how Scandinavian culture is expressed in literature, art, music, theatre, film and the history of ideas

be able to give an account of how democracy is being and has been formed in candinavia

- be able to give an account of the common features in the development of the cultural and social systems in Scandinavia
- be able to reflect on how influences from the surrounding world have affected this development
- be able to formulate and delimit a research issue through the production of an assessed written assignment
- be able to assess the social, ideological and cultural importance of the subject, both historically and contemporarily

## Selected topics

- Our Roots? What are the Borders of Scandinavia? The Conceptualization of Scandinavia in Myth and on Maps The History of Scandinavia an Outline. From Paganism to Postmodernism (time table, key events) Religion, Civilization Myths and the Function of Nordic Motives as a Key for Understanding Scandinavian History and Culture Political Systems in Scandinavia, Especially in Sweden The Roots of Scandinavian Democracy
- Scandinavian Classics and Contemporary Literature and Music Film and Theatre an Overview **Teaching and assessment**

Teaching consists of lectures, seminars and supervision. Assessment is based on a written assignment. Educational visits: Information will be given during the first lesson.

The grades awarded are A, B, C, D, E or Fail. The highest grade is A and the lowest passing grade is E. The grade for a non-passing result is Fail.

**Study period:** Autumn semester and spring semester

Web page: www.kultur.lu.se



Division of External Relations

## Study Abroad Short-term programmes

## Introduction

## **Lund University**

Founded in 1666, Lund University is today one of the largest, oldest and broadest universities in Scandinavia and is consistently ranked among the world's top 100 universities. Lund University has 33 000 students and 6 800 staff from all over the world, based mainly in Lund, Malmö and Helsingborg. The University is organised into eight faculties, and several research centres and specialised institutes, providing education and research in engineering, science, law, social sciences, economics and management, medicine, humanities, theology, fine art, music and drama.

Lund University is an international centre for research and education and has evolved into one of the most internationalised universities in Sweden. The University is the only Swedish member of prestigious networks such as League of European Research Universities (LERU) and Universitas 21 (U21). Annually some 3,500 international students choose to study in Lund. The University has exchange agreements with approximately 600 universities in more than 50 countries worldwide, including more than 400 agreements within EU's Erasmus Programme.

## The City of Lund

Lund is one of the oldest cities in Sweden but with the healthiest and youngest population in the country. There are 130 nationalities in Lund, making it a truly international city in which to study. In the city you can find a blend of old and new, tradition and innovation. Lund is a city of contrasts where the old city centre, which dates back about a thousand years, thrives alongside modern buildings. The city itself is compact and charming, with picturesque old houses, romantic cobbled streets and beautiful green surroundings.

The easiest way to get around in the city is by bike and everything is within biking distance. Lund is a city in which the university has an enormous presence, a true student city where students can choose to study at one of the many cafés, green parks or student buildings. In addition there is a comprehensive public transport system including buses and trains to transport you in and round Lund, Sweden and nearby Copenhagen in Denmark.

## Contents of the Study Abroad programme

#### Lectures and course-related activities

The content and number of lectures and course-related activities within the programme is settled in agreement with the partner university.

#### Student services

On arrival in Lund, students are provided with arrival check-in, welcome packages and transportation. During the course of the programme, faculty and staff from the partner university will have a contact person in Lund who will be arranging arrival and orientation services, participate in all social events and answer any questions the programme staff may have.

## Student accommodation

LU Accommodation is a service at Lund University which manages accommodation for international students. Student housing is of high quality with central heating, triple glazed windows and bright interiors keeping interiors warm, light and comfortable. Students studying within a short-term Study Abroad programme are usually assigned accommodation in studio flats or corridor rooms. A corridor room is generally a single room located in a corridor of 10–12 rooms, where students live either among Swedish students or other international students. Students living in a corridor room share a fully equipped kitchen and a living room with the other students on the corridor.

A one bedroom apartment is a single room including a small kitchenette and a bathroom with a toilet, sink and shower.

## Faculty accommodation

LU Accommodation can also offer accommodation for faculty and staff on faculty-led Study Abroad programmes. There are two different accommodations to choose from. *University Guest House Sparta* is located by the School of Economics and Management and the Faculty of Engineering (LTH) while the *Lund University Guest House* is located close to the main university building, the main university library and within a 10 minute walk from Lund city centre.

## Activities designed for cross-cultural experiences

There is an extensive number of activities to choose from within a short-term Study Abroad programme at Lund University. The following activities are examples of what can be included in a programme. The number and type of activities can be modified according to the demand of the partner university.

## Guest lectures on Swedish culture

The Faculty of Humanities and Theology offers a number of guest lectures, which can be included in a short-term Study Abroad programme. The lectures cover topics on Swedish culture, such as Swedish music, film and sustainability. The lectures provide students with information about life in Sweden and a glimpse of Swedish culture and society.

## Excursions on Österlen or in northern Skåne

The Skåne region offers a wide variety of sites of historical and cultural interest. Examples of sites which can be included in a tour are Ale's Stones, a 1400 years old megalithic monument where it is also possible to try different kinds of

traditional Swedish herring. Other examples are Backåkra, the home (now museum) of former UN Secretary Dag Hammarskjöld and Glimmingehus which is one of the best preserved medieval castles in Sweden. There are several other sites and locations that can be included in order to fit the theme of the programme.

## Swedish Lounge

Swedish Lounge is an event organised by the division of External Relations where Swedish and international students have the opportunity to meet to "fika", bake traditional cakes, watch movies and discuss current issues, all in Swedish. At the Swedish Lounge international students are organised into groups of 7-8 students depending on their level of Swedish language skills. Each group is led by two Swedish language buddies.

## A visit to a student nation

The student nations in Lund are social clubs offering everything from pubs and dinner parties to sports teams and movie clubs for all students at Lund University. There are 13 nations to choose from and most of them date back to when the University was founded in the 1600's. The student nation system is unique and can only be found in Lund and in Uppsala in Sweden.

Guided tours of the Kulturen museum and the Museum of Public Art Kulturen is a museum covering two blocks in central Lund, filled with historic buildings and gardens. At the museum one can step into the houses and experience life in Lund city and on the Swedish countryside, from the Middle Ages to the 1930s.

The Museum of Public Art is a unique art museum. Its focus is the creative process around the conception of public art – that is to say sketches, preliminary works, and models to the art that meets us in our surroundings. Each process is unique, and both the scale and the materials vary – from a hastily scribbled paper sketch to large cast models, from the early 1900's to our present time. Here one can access what is "behind the scenes" and experience the birth of a work of art, and how public art has developed.

## Other activities

Other common activities for short-term Study Abroad programmes are visits to the Botanical Gardens, picnics and games etc.

## Questions?

For more information about short-term Study Abroad programmes, please contact Maria Johansson on email <u>maria.johansson@er.lu.se</u> or phone +46 46 222 31 76.