



Master Studies in Earth Science AT Uppsala University SWEDEN

Konstantinos Thomaidis
Master Student in Earth Science

Hall D22
School of Science
Wednesday 1 April, 12:00



Την Τετάρτη 1 Απριλίου 2015 έγινε παρουσίαση - ενημέρωση σχετικά με το πανεπιστήμιο της Ουψάλα (Σουηδία), το μεταπτυχιακό του πρόγραμμα στις Γεωεπιστήμες (κατευθύνσεις, μαθήματα), τις προϋποθέσεις αποδοχής κλπ.

Η παρουσίαση έγινε από τον Κωνσταντίνο Θωμαΐδη, μεταπτυχιακό φοιτητή και πρεσβευτή (ambassador) του πανεπιστημίου Ουψάλας και απόφοιτο του Τμήματός μας.







UPPSALA
UNIVERSITET



UPPSALA UNIVERSITET

Quality, knowledge and creativity since 1477



UPPSALA
UNIVERSITET

Uppsala



Uppsala



UPPSALA
UNIVERSITET



University Main Building



UPPSALA
UNIVERSITET



University Main Building



UPPSALA
UNIVERSITET



Uppsala University in brief



UPPSALA
UNIVERSITET

- ✧ Three disciplinary domains:
 - ✧ humanities and social sciences
 - ✧ medicine and pharmacy
 - ✧ science and technology
- ✧ Nine faculties – over 50 institutions
- ✧ Revenue – 5,500 mn SEK
- ✧ 40,000 students, approximately 23,000 full time students
- ✧ 600 professors
- ✧ 6,300 employees

A complete university



UPPSALA
UNIVERSITET



Pharmacy



Arts



Law



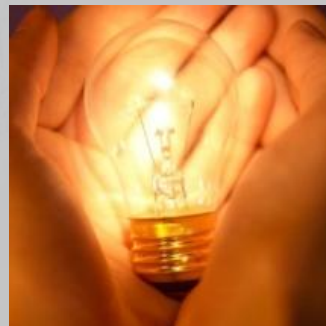
Languages



Education



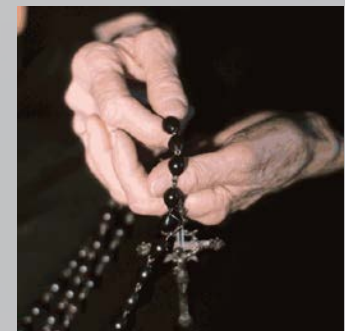
Medicine



Science &
Technology



Social
Sciences



Theology



UPPSALA
UNIVERSITET

Education and Research in figures

- ✧ 70 programmes for beginners and 60 master programmes
- ✧ Over 2,000 single-subject courses
- ✧ 5,000 undergraduate and postgraduate degrees every year
- ✧ 2,400 doctoral students
- ✧ 300 doctorates every year
- ✧ 4,500 academic publications per year



Internationalisation



UPPSALA
UNIVERSITET

- ✧ 39 international Master programmes and close to 800 single subject courses in English.
- ✧ Student exchanges with almost 400 universities abroad in 50 countries.
- ✧ In 2012 about 4,400 articles were published by researchers at Uppsala University, written in collaboration with about 10,300 foreign scientists, +29% compared to 2011.



International Master Programs at the Faculty of Science and Technology



UPPSALA
UNIVERSITET

Applied Biotechnology

Bioinformatics

Biology

Chemistry

Computer Science

Computational Science

Earth Science

Embedded Systems

Mathematics

Molecular Biotechnology

Physics

Sustainable Development

Wind Power Project Management



Tradition and culture



UPPSALA
UNIVERSITET

- ✧ Oldest Nordic University – founded in 1477
- ✧ Eight Nobel Prizes
- ✧ Museums and Music
- ✧ Academic Ceremonies
- ✧ Walpurgis Night – 30 April
- ✧ Student Nations (Student Clubs)



Nobel Laureates



UPPSALA
UNIVERSITET

Allvar Gullstrand – Nobel Prize in Physiology and Medicine 1911

Robert Bárány – Medicine 1914

Manne Siegbahn – Physics 1924

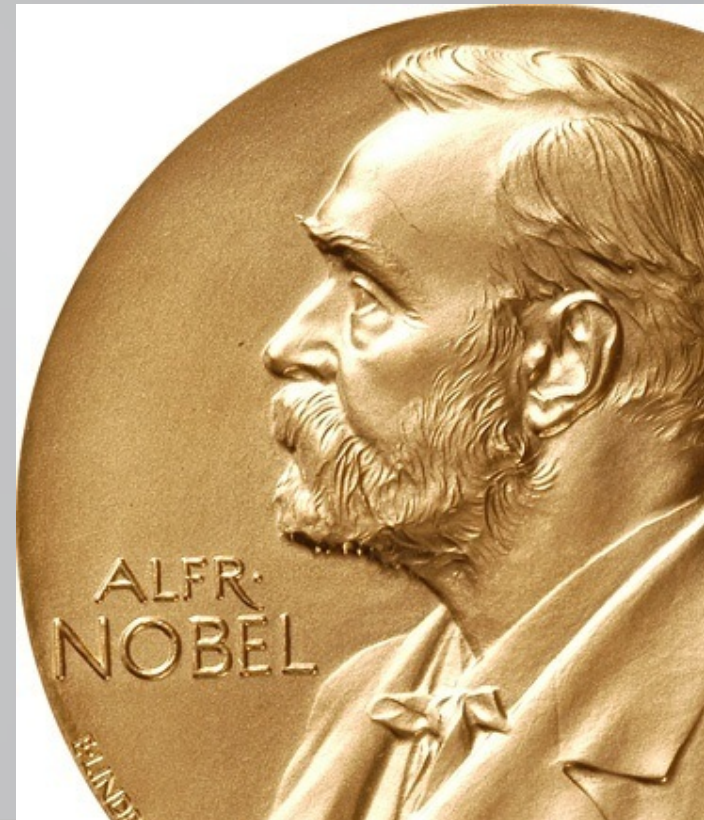
The Svedberg – Chemistry 1926

Nathan Söderblom – Nobel Peace Prize 1930

Arne Tiselius – Chemistry 1948

Dag Hammarskjöld – Nobel Peace Prize 1961

Kai Siegbahn – Physics 1981



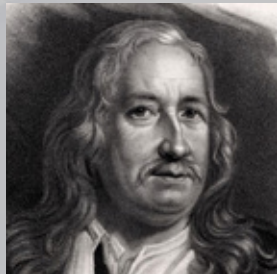
Some historical Uppsala profiles



UPPSALA
UNIVERSITET



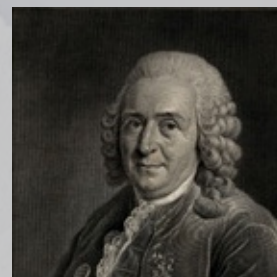
Jacob Ulvsson



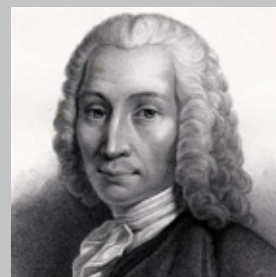
Olof Rudbeck d. ä.



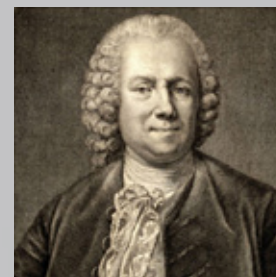
Johan Skytte



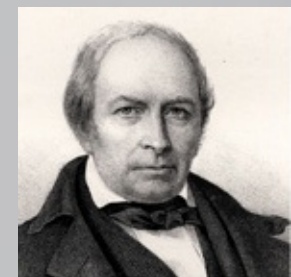
Carl von Linné



Anders Celsius



Nils Rosén



Erik Gustaf Geijer



Ellen Fries



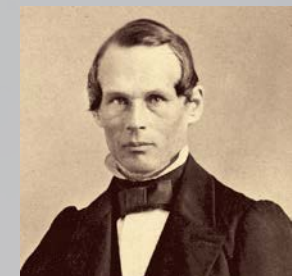
Gerd Enequist



C W Scheele



Betty Pettersson



Anders Ångström

Uppsala University is doing well



UPPSALA
UNIVERSITET

- ✧ Expanding significantly
- ✧ New record in no. of applicants, again
- ✧ Securing major research funding
- ✧ Top ranked research and education
- ✧ Good outcome in evaluations
- ✧ Large proportion ERC grants to UU



Student life



UPPSALA
UNIVERSITET



TGIF party in the foyer !!!



Requirements



UPPSALA
UNIVERSITET

Proficiency in English:

TOEFL: mark 4.5 in the written test, 575 (paper-based test); mark 4.0 in essay writing and a total score of 213 (computer-based); mark 20 in the written test, score of 90 (Internet-based).

IELTS: An overall mark of 6.5 and no section below 5.5.

Cambridge: CAE, CPE.

Bachelor degree

Programme specific requirements



Tuition fees and scholarships



UPPSALA
UNIVERSITET

- ✧ Master programmes in Medicine, Pharmacy, Science and Technology SEK 145,000 (Approx. USD 20.000)
- ✧ Master programmes in Arts, Humanities, Social Sciences, Theology is SEK 100,000/120 000 (Approx. USD 15.000)
- ✧ Application fee: SEK 900 (Approx. USD 135)
- ✧ Uppsala University offers a few scholarships to cover tuition fees to non-EU/ EEA students. More info: www.uu.se/education
- ✧ The Swedish Institute also administers scholarships. More info: www.studyinsweden.se/scholarships

Application



UPPSALA
UNIVERSITET

✧ **October 15th, 2015**

The application period will begin and the online application will open.

✧ **January 15th, 2016**

Last date for applying for the 2014/2015 academic year.

✧ **February 2nd, 2016**

Last date for submitting documents to University Studies in Sweden.

Online application only:

www.universityadmissions.se/intl/start

Master Programme in Earth Sciences



UPPSALA
UNIVERSITET



Master Programme in Earth Sciences



UPPSALA
UNIVERSITET



Master Programme in Earth Sciences



UPPSALA
UNIVERSITET



07.09.2014 13:42



07.09.2014 13:43



UPPSALA
UNIVERSITET

Master Programme in Earth Sciences

- ❖ UU offers one of the broadest Masters programmes in Earth Sciences
- ❖ Specialisations in Earth Sciences are:
 - ❖ Geology
 - ❖ Hydrology
 - ❖ Paleobiology
 - ❖ European paleobiology (UU-Sweden, Lille-France)
 - ❖ Physical geography
- ❖ Department of Physics provide options for Geophysics and Meteorology



UPPSALA
UNIVERSITET

Master Programme in Earth Sciences

Courses in the first part of the first semester are common to all specialization:

1 period

- ✧ Dynamics of Earth Systems – Global Change
- ✧ Applied Geoinformatics for Earth Sciences

2 period

- ✧ Presentation and publication

In the second and third semester subjects relate to chosen specialisation

Geology



UPPSALA
UNIVERSITET

Applied research is focused on:

- ✧ exploration and development of resources such as metals, hydrocarbons, geothermal resources
 - ✧ storage of toxic waste
 - ✧ slope stability
 - ✧ volcanic processes and hazards
- ✧ The Hans Ramberg Tectonic Laboratory is the foremost facility in Scandinavia for tectonic modeling at various scales



Geology



UPPSALA
UNIVERSITET

The Geology specialization contains core subjects in:

1 semester

✧ Analytical Methods in Earth Sciences

2 semester

✧ Mineralogy & petrology

✧ Regional geology

✧ Field project

3 semester

✧ Natural resources

✧ Tectonics



Geology



UPPSALA
UNIVERSITET

Jeol Hyperprobe Uppsala University

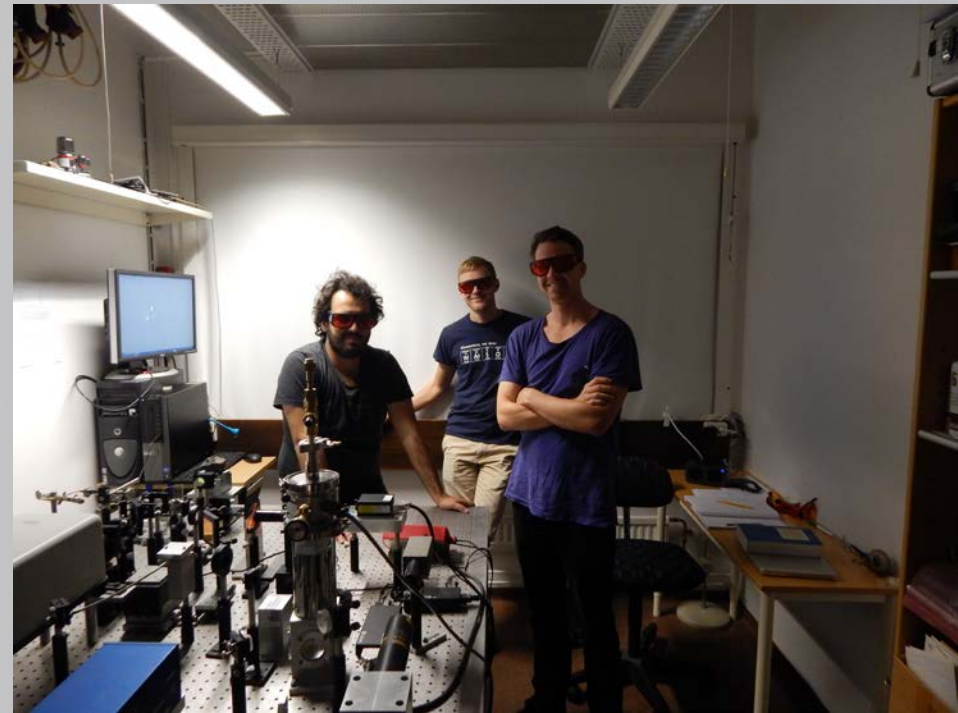
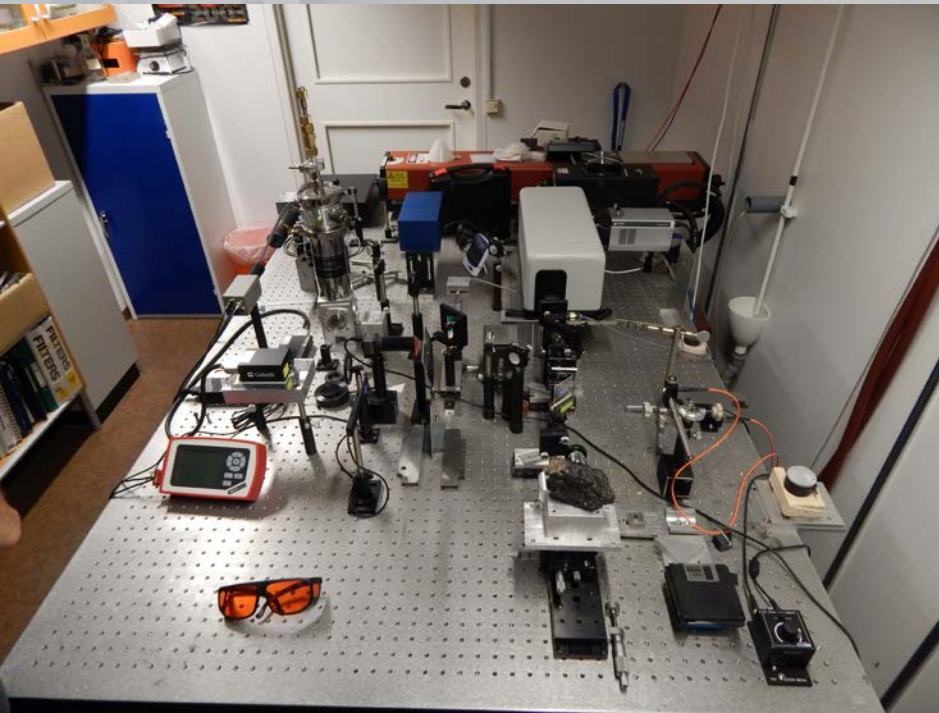


Geology



UPPSALA
UNIVERSITET

Raman Spectroscopy lab





UPPSALA
UNIVERSITET

Hydrology - hydrogeology

Research at the department follows the strongly interlinked research areas:

- ✧ Surface Water Hydrology and Climate
- ✧ Subsurface Hydrology (Geohydrology)
- ✧ Water Quality and Resource Management

The department is leading an EU FP7 project: MUSTANG, aiming to develop new methods and understanding for geological storage of carbon dioxide





UPPSALA
UNIVERSITET

Hydrology - hydrogeology

The Hydrology/Hydrogeology specialization combines courses on:

- ✧ Hydrological processes
- ✧ Environmental Assessment
- ✧ Groundwater and surface modeling
- ✧ Field methods in Earth Science
- ✧ Water and Society
- ✧ Distribution and treatment of drinking water
- ✧ Snow physics and hydrology
- ✧ Current research in physical geography and hydrology
- ✧ Natural hazards and disasters





UPPSALA
UNIVERSITET

Physical Geography

The research programme of Physical Geography can be divided into two sub-groups:

- ✧ Exogene geochemistry
- ✧ Glaciology

Researching key processes in *climate-driven glacier changes* and use these findings for quantitative *prediction* of future glacier changes and their *impact on global sea level* and regional water resources





UPPSALA
UNIVERSITET

Physical Geography

Physical geography offer dynamic courses in:

- ✧ Glaciology and glacial processes
- ✧ Geomorphology and Earth Surface processes
- ✧ Field methods in Earth Science
- ✧ Environmental change on geological timescales
- ✧ Snow physics and hydrology
- ✧ Natural hazards and disasters
- ✧ Environmental Assessment
- ✧ Water and Society
- ✧ Current research in physical geography and hydrology

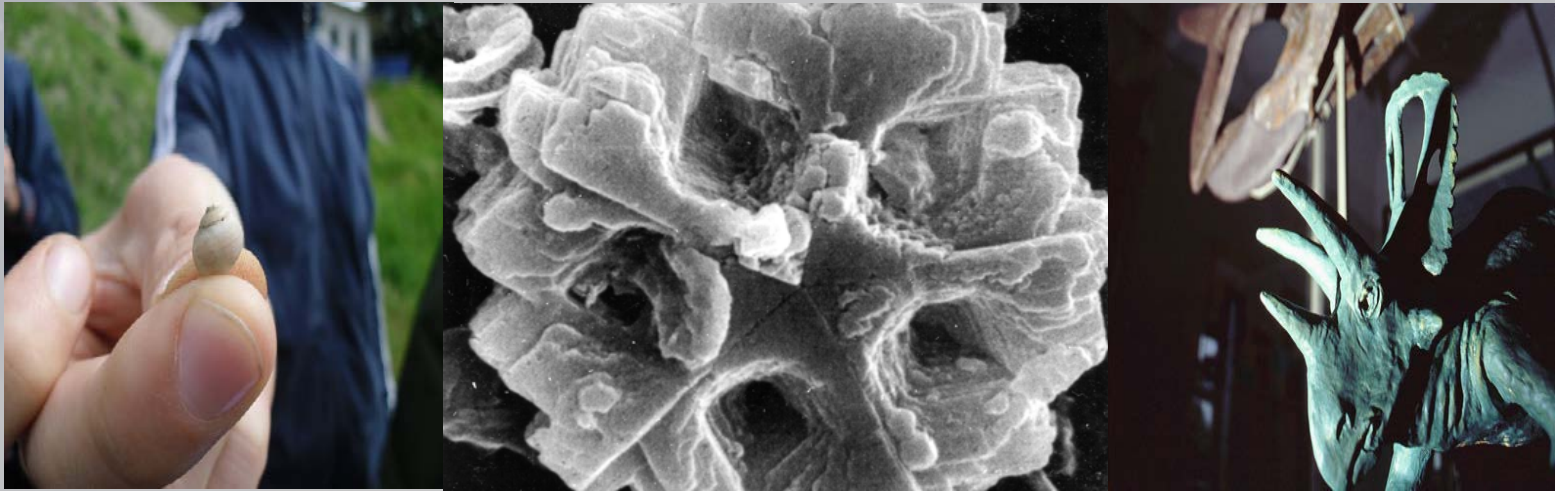


Paleobiology



UPPSALA
UNIVERSITET

Research within the Paleobiology programme integrates the Earth and Life Sciences, encompassing the time span from the origin of life to the significant climatic changes of recent millennia.



Paleobiology



UPPSALA
UNIVERSITET

Paleobiology courses are:

1 semester

- ✧ Analytical methods in earth sciences

2 semester

- ✧ evolutionary organismal biology
- ✧ principles of paleobiology

3 semester

- ✧ the origin and early evolution of life
- ✧ the origin and evolution of vertebrates

The courses contain several field-trips





UPPSALA
UNIVERSITET

European paleobiology

- ✧ Joint programme between Lille, France and Uppsala, Sweden
- ✧ The first semester is based in Lille, with courses including:
 - ✧ Sedimentology and sequence stratigraphy
 - ✧ Micropalaeontology and geobiology
 - ✧ Large-scale perturbations of the biosphere
- ✧ The second and third semesters in Uppsala
- ✧ The degree project in either Lille or Uppsala

Geophysics



UPPSALA
UNIVERSITET

The department has four research groups:

- ✧ Earthquake Seismology
- ✧ Controlled source seismology
- ✧ Electromagnetics studies
- ✧ Orogen dynamics

You study planet Earth using:

- ✧ gravimetry
- ✧ magnetometry
- ✧ GPS
- ✧ seismology
- ✧ electromagnetics





UPPSALA
UNIVERSITET

Degree Project – Master Thesis

- ✧ The Masters education is completed with one or two degree projects, each corresponding to 30 higher education credits
- ✧ The work can be carried out as a research project at the department or as a project for an industrial company, an NGO or a government agency





UPPSALA
UNIVERSITET

Entry Requirements

✧ **Proficiency in English**

- ✧ TOEFL: mark 4.5 in the written test, 575 (paper-based test); mark 4.0 in essay writing and a total score of 213 (computer-based); mark 20 in the written test, score of 90 (Internet-based).
- ✧ IELTS: An overall mark of 6.5 and no section below 5.5.
- ✧ Cambridge: CAE, CPE.

✧ **Bachelor Degree (180 ECTS)**

✧ **Programme specific requirements:**

- ✧ Geology – 90 ECTS in Earth Science & **15 ECTS in chemistry**
- ✧ Hydrology - 90 ECTS in Earth Science & **15 ECTS in mathematics**
- ✧ Physical geography - 90 ECTS in Earth Science
- ✧ Paleobiology - 90 ECTS in Earth Science or biology
- ✧ Geophysics – 75 ECTS in physics

Admissions



UPPSALA
UNIVERSITET

✧ **15th October**

The online application system will open.

✧ **15th January**

Last date for applying.

✧ **2st February**

Last date for submitting documents to University Studies in Sweden.

✧ **Online application only:** www.universityadmissions.se



UPPSALA
UNIVERSITET

Contact and Information

- ✧ Director of Masters Programme in Earth Sciences :
Dr. Abigail Barker abigail.barker@geo.uu.se
- ✧ Director of Masters Programme in Geophysics:
Dr. Christoph Hieronymus christoph.hieronymus@geo.uu.se
- ✧ Study Counsellor:
Susanne Paul studievagledare@geo.uu.se
- ✧ Website: www.geo.uu.se
- ✧ www.uu.se/en/admissions/master/
- ✧ www.uu.se/en/admissions/scholarships/



UPPSALA
UNIVERSITET

Σας ευχαριστώ για την προσοχή σας!



The northern lights in Uppsala 18 March 2015