**Course Plan**

# *Science Communication*

## 5 Credits

**Level:** Third
**Subject:** Science communication

**ACCESS Linnaeus Graduate Center, School of Electrical Engineering**
**Teacher:** Joanna Rose, Forskning och Framsteg and Eva Krutmeijer, SU
**Additional teacher**: Elisabeth Eriksson, education consultant Lindfors & Co

**Course Director**: Marie Androv

**Course Plan valid from:** August 2011

**Course objectives:**
On this course students will learn more about presentation techniques, communication and information vs lobbying. The course is primarily practical and includes spoken and written exercises. Communicating science concerns paring down the points of information, removing the unimportant parts and simplifying in a correct manner. In addition, students learn more about science and also about the questions that science cannot answer.

**Content:**
The following elements are included:
• Popular science
The task of journalism is to describe and examine the world, and in so doing make it comprehensible to ordinary people. How is this done? From first thoughts to finished article? What can a researcher learn from the way a scientific journalist works? This course is aimed at training students' abilities to identify and detach the most important message and to present it in a manner that is tasteful, correct and interesting to the reader.
• Information
Communicating science to different target groups is trained via various exercises. What role does communication play within universities, government agencies and in business? How are external communications managed? Who are the recipients?
• Exercises
Practical exercises in communicating popular science to different target groups are included in all course elements, e.g. monitoring and writing about the Nobel presentation of a Nobel Laureate.


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**Course objectives are operationalised by:**
• Identifying different forms of popular scientific communication.
• Considerable amounts of practical training with feedback from professionals.
• Providing opportunities for personal reflection in meetings with colleagues in the same situation.
• Using the doctoral students' own research as working material - participants are expected to provide their *own research results* to communicate.

**Individual assignments**:
Short written exercises
Research pitch
Popular scientific articles
Final presentation

**Course literature:** Handouts from teacher.

A Field Guide for Science Writers: The Official Guide of the National Association of Science Writers , Deborah Blum, Mary Knudson, Robin Marantz Henig

The Oxford Book of Modern Science Writing , Richard Dawkins

**Language of instruction:** Swedish but writing may be done in English

**Prequalification:** Doctoral student or postdocs at ACCESS Linnaeus Center.

**Examination:** Active participation and 100 per cent presence, completed individual and group assignments and finally a popular science text on student's own research.

**Other:** Teaching will take place in eight sessions of three hours each between 3.00 and 6.00 p.m. (11 October 6.00-9.00 p.m.), beginning Week 39, Tues 27 September.

## Course content

**Session 1: Introduction to popular science**
*Thursday 26 September 2013 at 15:00 --18:00*
Introduction to science journalism with Joanna Rose focuses on writing through brief written and spoken exercises, discussions. Homework to write a short notice aimed at a general target group about a current scientific discovery from a journal such as Science or Nature.
Introduction to assignments: Notice (30 September) and Nobel article (11 October).



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**Session 2: Target groups, message and channels**
*Tuesday 1 October 2013 at 15:00 --18:00*
Introduction to scientific communication and information versus lobbying with Eva Krutmeijer. Communication with different target groups. Why disseminate research results to others anyway? Research for society and communications with politicians and business/industry, how does the research world differ from the political and business worlds? Which pitfalls should be avoided? Discussion and reflection plus brief exercises in groups. Some brief exercises concerning the role of the researcher as a communicator, and writing invitation to final presentation. Introduction to Assignment Elevator Pitch.

Homework – 2-14 October

**Session 3: Nobel and critical reading**
*Tuesday 15 October 2013 at 15:00 --18:00*

More advanced writing activities (JR): Feedback on assignment Notice and Nobel article. More on scientific journalism in practice and interviews with each other and write brief portraits. In a seminar discussion, we will analyse three articles for such issues as clarity, message, structure, and balance between popularisation of the topic vs. rigorous presentation of complex scientific concepts.

**Session 4: Presentation Techniques**
*Thursday 17 October 2013 at 15:00 - 18:00*

**The art of reaching out with your message** with Elisabeth Ericson will bring up topics such as the difference between being a communicator and being a receiver, voice and body in interaction with the words, the importance of getting to know your target group and manage choice of words, terms and concepts. Theory mixed wihtd unprepared exercises.

**Session 5: Elevator pitch and media training**
*Tuesday 22 October 2013 at 15:00 - 18:00*
Each student will present their elevator pitch about their research and be the subject of an on-camera journalistic interview intended to challenge his or her ability to stay on-message, formulate succinct points appropriate for the medium, and resist pressure to oversimplify or exaggerate.

**Session 6: Study visit to Forskning & Framsteg**
*Thursday 24 October 2013 at 18:00 --21:00*

More on scientific journalism and contacts with media, how editors think etc., headlines, intros, asking good questions. How digital and social media has changed the media landscape and how it can improve your communication. We will learn more about how you can use twitter to disseminate your research and create collaborations.

**Homework – Thursday 25 October –6 November**



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Work on final presentation

**Session 7: Final presentation**
*Thursday 7 November 2013 at 15:00 --18:00*

The final presentation of your research will be held before an audience of master's students, faculty and industry people. And you will make sure they are there.

**About Joanna Rose**

Scientific journalist Joanna Rose has taught a course in science communication at Stockholm University for the last ten years. She is a journalist and is editor of the journal Forskning & Framsteg. She writes and edits articles on astronomy, physics, philosophy and the history of ideas. Joanna Rose has a Licentiate degree from Stockholm University. Her original education was in physics and, in addition to her work at Forskning & Framsteg, she also works with the radio programme "The Philosophical Room" on P1.

**About Eva Krutmeijer**

Eva Krutmeijer is a natural scientist specialising in physical chemistry who has worked actively in scientific communications for many years. She worked in the publishing business for twelve years and then became Information Director at the Royal Swedish Academy of Sciences. For the past few years she has run her own consultancy business where she spends much of her time advising on communications and on her own writing. She is often employed as moderator and chair of scientific seminars and of more public-oriented activities within research and science.

**About Elisabeth Ericson**

Elisabeth has taught presentation techniques at Stockholm University for many years.



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