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<tr>
<td>0900-0945</td>
<td>Welcome &amp; Introduction to the PhD programme</td>
<td>Becoming an academic</td>
<td>Philosophy of science I: What is scientific knowledge?</td>
<td>Review of lectures and group work</td>
<td>Biomedical and bioinformatics</td>
<td>Statistics</td>
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<td>1100-1145</td>
<td>Introduction</td>
<td>Group work 1 Philosophy of science I: A critical review of Statistics</td>
<td>Qualitative research</td>
<td>Medical history/historization</td>
<td>Research ethics incl the Health Research Act</td>
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<td>1145-1230</td>
<td>Lunch</td>
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<td>1230-1315</td>
<td>Legal requirements and ethical practices in medical and health research</td>
<td>Methods in medical research</td>
<td>Philosophy of science II: Explanation and Causality</td>
<td>Qualitative research (cont'd)</td>
<td>Medical history/historization</td>
<td>Research ethics (cont'd)</td>
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<tr>
<td>1330-1415</td>
<td>Jan Helge Solbakken, Katrine Ore</td>
<td>Methods in medical research (cont'd)</td>
<td>Philosophy of science II: Explanation and Causality</td>
<td>Medical history/historization (cont'd)</td>
<td>Community medicine</td>
<td>Research ethics (cont'd)</td>
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<td>1430-1515</td>
<td>Medical research</td>
<td>Epidemiology</td>
<td>Translational research</td>
<td>Minority health</td>
<td>Global health</td>
<td>Ethics of science</td>
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<td>1530-1615</td>
<td>The Research Ombudsman</td>
<td>Surgical research</td>
<td>General practice</td>
<td>Review of course &amp; intro to course exam</td>
<td>Medical anthropology</td>
<td>Kåre Moen and Uta Sailer</td>
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Course aims

The overall aim of the Intro I course is to introduce basic knowledge in the philosophy, history, ethics and methods of science with specific focus on convergence and interdisciplinary approaches.

Medical research has become interdisciplinary. Cross-disciplinary cooperation and integration of multiple research fields has allowed the development of new knowledge and enabled new applications. This development is often called convergence. In this course, we will exemplify convergence by showing how a multifaceted problem can be addressed from different angles. We have chosen morbid obesity as our case; this thematic area will be engaged with in order to give participants concrete examples of general principles and approaches. Note, however, that the course is not meant as a formalized introduction to obesity research – obesity is merely used as a case to exemplify modern research trends.

Multiple, integrated methods and tools can be applied to elucidate this thematic area, including randomized controlled trials, R&D initiatives in primary health care, municipal initiatives, programs for increased physical activity, and cooperation with NGOs are examples. In the social context, prevention requires increased awareness in schools and in the public, as well as enhanced knowledge about nutrition, public health initiatives, product innovation, dissemination of healthcare products and political decision making.

This course provides an introduction to a variety of scientific perspectives and skills that are required to address such a complex issue. The course focuses on research ethics and philosophy of science, and introduces a breadth of research methods, including epidemiology, statistics, and qualitative research. In addition, genetic studies, basic research studies, cell physiology and pathophysiology, and studies of laboratory animals are introduced. The students will work in groups to elucidate the issue from their own point of view.

About the course

This one week course consists of preparatory work, lectures, workshops, group work and an “article workshop”,

- **Preparatory work:** Before the start of the course, you must submit a description of yourself and your own research project. These descriptions are actively used as examples by several lecturers in the course (e.g., in the lecture entitled “Methods in Medical Research”).

- **Mini seminars:** The course has three mini seminars during which research in different medical disciplines are discussed with a special focus on research methodology (with examples from ongoing research at UiO).

- **Group work:** The course has two group work sessions during which you will have the chance to engage in discussions with other participants about core topics covered in the course.

- **Article workshop:** In preparation for the *Article workshop* (which also has a group work format), you should search PubMed with the aim of identifying an article that you will present to the other members of your group. The article should be from your own research field/research tradition and have a focus on obesity. Please
distribute the article to the other group members at least one day before the Article workshop. During the workshop, each group member will present his or her article to the others, and provide a discussion of it that critically reviews the research methods used.

- **Web course:** An internet-based course about legal requirements and ethical practices in medical and health research is integrated into the first day of the course. Course participants are requested to bring their own laptop computer to the course on this day.

## Course Exam

The course exam has 3 tasks.

Each task must be competed individually by course participants. However, you are allowed, even encouraged, to discuss the exam tasks with other course participants, your supervisors, or other researchers in your group.

All of the exam tasks require that you use references (from the course literature, other publications, lectures, etc.) and cite these appropriately and correctly. (For basic information on referencing, you may want to consult [http://www.ub.uio.no/english/writing-referencing/](http://www.ub.uio.no/english/writing-referencing/) and [http://sokogskriv.no/en/sources-and-references/](http://sokogskriv.no/en/sources-and-references/)).

When typing up your exam, use the Times new Roman font, font size 12.

Upload your exam paper as one single document in Fronter no later than 2 weeks after the end of the course.

**Task 1:** Based on the discussion in Group work 1, with additional input from later lectures and relevant literature, please provide an overview of the range of research methods that may be used to research various aspects of obesity. (Max 2 pages).

**Task 2:** Prepare a summary of the article you presented in the Article workshop. The summary should contain a brief description of the aim of the study, the research methods used, findings, and conclusions. Discuss strengths and weaknesses of the study, and provide an assessment of whether the method(s) used were appropriate to address the research question under consideration.

**Task 3:** Write a short reflection note on one of the following themes (minimum 2 pages, maximum 4 pages):

- Ethical challenges in medical research
- Convergence in life science and medical research: Possibilities and challenges
- Causality in medical research

You may use your own research, obesity, or any other topic as example. Draw on perspectives that have been presented during this course.
## Course literature

### Required reading:


**Kindle edition:** [http://www.amazon.com/Research-Medical-Biological-Sciences-Preparation-ebook/dp/B00ZC90GWG/ref=mt_kindle?_encoding=UTF8&me=](http://www.amazon.com/Research-Medical-Biological-Sciences-Preparation-ebook/dp/B00ZC90GWG/ref=mt_kindle?_encoding=UTF8&me=)


### Other readings:

**Biomedical laboratory research**

Haakon B. Benestad & Jens-Gustav Iversen: *An introduction to biomedical laboratory research, 1999*

**Theory of science, research ethics and science ethics:**


