Systematic Reviews

Advanced level, 7.5 ECTS

Instructors
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Course content
It is becoming more common that public policy interventions should be based on best available evidence. The purpose of a systematic review is to sum up the best available research evidence on a specific question. This is done by synthesising the results of several studies. Participants will explore the range of existing approaches to, and methods for, research synthesis. The course will provide hands-on experience of commonly used methods (including the procedures proposed by the Campbell/Cochrane Collaborations). The course uses material from a range of policy areas and will explore different kinds of review questions. Participants will be introduced to different methods for synthesising both a range of study designs and qualitative and quantitative data, although there is an emphasis on synthesising quantitative data (meta-analysis). To help participants consider the role played by systematic reviews in policy and practice decisions, this course also includes discussion of the opportunities and challenges that systematic reviews pose.

Entry requirements
Bachelors degree with a major in social sciences and English B or corresponding.

Learning outcomes
After having completed the course, students are expected to be able to:

- characterize and explain the steps in the systematic review process (problem formulation, identification of studies, data extraction, study quality appraisal, synthesis, dissemination).
- critically appraise and interpret meta-analyses of quantitative research evidence.
• understand the fundamental problems related to internal and external validity, and be able to reflect and argue for its consequences for applying social science research in practice.
• conduct oneself critical to the role played by systematic reviews in policy and practice decisions.

Course organization

The course is offered full-time over five weeks. Course participants and instructors meet approximately twice a week for lectures, group discussions, computer-based exercises and/or seminars. The lectures/seminars cover topics not necessarily addressed in the required readings. Lectures should accordingly be viewed as a complement to the mandatory literature. In order to enhance the learning outcomes, students need to be up to date on previously acquired skills in descriptive statistics and basic multivariate quantitative methods. The course is offered in English.

Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Room</th>
<th>Lecture/seminar</th>
<th>Required readings</th>
<th>Teacher</th>
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<tbody>
<tr>
<td>Tue 1/11, 10-12</td>
<td>F347</td>
<td>Systematic reviews for public policy and practice; The systematic review process</td>
<td>Petticrew &amp; Roberts, ch. 1-2 (+app. 1); Davies et al, ch. 1-2 (skim ch. 3-8+10); Bogenschneider &amp; Corbett, ch. 1-2; Vedung</td>
<td>AL</td>
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<tr>
<td>Fri 4/11, 10-12</td>
<td>F347</td>
<td>Defining the scope of relevant evidence; Formulating an answerable review question; Identifying relevant studies and outcomes</td>
<td>Petticrew &amp; Roberts, ch. 3-4; Davies et al, ch.12-14; Mullen</td>
<td>AL</td>
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<tr>
<td>Wed 9/11, 10-12</td>
<td>SUL</td>
<td>Group 1: Advanced information searching</td>
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<td>Guest 1</td>
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<tr>
<td>Wed 9/11, 13-15</td>
<td>SUL</td>
<td>Group 2: Advanced information searching</td>
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<td>Guest 1</td>
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<tr>
<td>Date</td>
<td>Course Code</td>
<td>Title</td>
<td>Authors/References</td>
<td>Room/Location</td>
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<tr>
<td>Fri 11/11, 10-12</td>
<td>F355</td>
<td>Systematic methods for study quality appraisal, data extraction, evidence-grading and making recommendations</td>
<td>Petticrew &amp; Roberts, ch. 5; GRADE; Guyatt et al; Altman et al; Moher et al; Stroup et al</td>
<td>CvO</td>
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<tr>
<td>Wed 16/11, 13-15</td>
<td>F355</td>
<td>Systematic methods for research synthesis</td>
<td>Borenstein et al., Part 1-4, 6, 9; Petticrew &amp; Roberts, ch. .6-7; Britten et al; Gendrau &amp; Smith; Pawson et al</td>
<td>AL</td>
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<tr>
<td>Thu 17/11, 9-12</td>
<td>B389</td>
<td>Practical Meta-analysis in Stata</td>
<td>Harris et al; Smedslund et al; Sterne et al</td>
<td>AL, CvO</td>
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<tr>
<td>Wed 23/11, 10-12</td>
<td>F371</td>
<td>Reality and complexity in policy and practice decision-making: lessons from a systematic review</td>
<td>Littell et al; Littell x2 Henggeler et al; Andrée Löfholm et al</td>
<td>AL, CvO</td>
</tr>
<tr>
<td>Fri 25/11, 10-12</td>
<td>F363</td>
<td>Systematic reviews in practice:</td>
<td>Petticrew &amp; Roberts, ch. 8; Bogenschneider &amp; Corbett, ch. 5-7, 9, 11</td>
<td>Guest 2</td>
</tr>
<tr>
<td>Fri 25/11, 13-15</td>
<td>F363</td>
<td>Making a reality of evidence-based policy and practice: possibilities and pitfalls</td>
<td>Petticrew &amp; Roberts, ch. 9; Davies et al, ch. 15; Aas &amp; Alexanderson; Boaz &amp; Pawson; Lieberson; MacLure; Smith &amp; Pell</td>
<td>AL</td>
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</table>
Guest 1: Staff from Stockholm University Library (SUL).
Guest 2: Per Kornhall, independent school developer, author, and speaker.
Guest 3: Emelie Andersson, Stockholms läns landsting, Center for epidemiology and public health

**Deadlines for exercises/assignments**

<table>
<thead>
<tr>
<th>Exercise/assignment</th>
<th>Deadline</th>
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<tr>
<td>E1: Review proposal</td>
<td>Thu 3/11 (23.59)</td>
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<tr>
<td>A1: Review protocol (project plan)</td>
<td>Thu 10/11 (23.59)</td>
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<tr>
<td>A2: Evidence-grading of a primary study</td>
<td>Tue 15/11 (23.59)</td>
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<tr>
<td>A3: Critical review of a meta-analysis</td>
<td>Mon 21/11 (23.59)</td>
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<tr>
<td>A4: Reality and complexity in evidence-based decision-making</td>
<td>Wed 30/11 (23.59)</td>
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Further instructions are to be found at Mondo.

**Instruction and examination**

This labour-intensive course consists of group discussions and computer-based exercises. All course work is based on collaborative work. Participation in group discussions is therefore mandatory.

The course is examined through four individual assignments:
1. Review protocol (project plan)
2. Evidence-grading of a primary study
3. Critical review of a meta-analysis
4. Reality and complexity in evidence-based decision making

Assignment 1-3 are assessed as Pass or Fail. Assignment 4 is assessed according to the criteria detailed below.

**Criterion referenced assessment**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Concepts and basic assumptions</th>
<th>Results and conclusions</th>
<th>The link between results and recommendation</th>
<th>Approach</th>
</tr>
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<tr>
<td></td>
<td>Detailed and critical discussion of concepts and basic assumptions</td>
<td>Clear and informed description of results and conclusions</td>
<td>Clear, detailed and critical description of the link between results and recommendation</td>
<td>Independent approach to the literature</td>
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</table>
Some shortcomings | Clear description of concepts and basic assumptions | Clear description of results and conclusions | Clear and detailed description of the link between results and recommendation | Open approach to the literature
---|---|---|---|---
Fail | Unclear or incorrect presentation of concepts and basic assumptions | Unclear or incorrect description of results and conclusions | Unclear or incorrect description of the link between results and recommendation | Lacks an independent approach to the literature

An assignment which is handed in late will very rarely be graded Good.

The final grade is based on the following criteria:

To receive grades A-E, students have to pass all assignments.

To get **A (excellent)**, Assignment 4 has to be Good on all criteria.

To get **B (very good)**, Assignment 4 has to be Good on all criteria except one.

To get **C (good)**, Assignment 4 has to be Good on at least two criteria.

To get **D (satisfactory)**, Assignment 4 has to be Good on at least one criteria.

To get **E (sufficient)**, Assignment 4 has some shortcomings on all criteria.

To get **Fx (insufficient)**, Assignment 4 fails on at least one criteria and/or the student has not passed assignments 1-3 or the student has not participated in collaborative group work.

To get **F (fail)**, Assignment 4 fails on at least one criteria and the student has not passed assignments 1-3 and the student has not participated in collaborative group work.

**Transitory regulations**

A student who has been awarded the grade Fx or F twice by the same instructor on the course has the right to have his/her next exam being evaluated by another instructor. If the student so wishes, he/she should contact the director of undergraduate studies.

**Required readings**
Books


Articles, chapters, Campbell/Cochrane reviews


**Recommended readings**


