



**KTH Arkitektur  
och samhällsbyggnad**

# Resilience thinking in Sustainable Planning

7.5 credits

AL2511

26 August – 12 October 2019

*Canvas will be used for all information during the course so have a look there regularly. If you have questions regarding the course, check Canvas, ask classmates or e-mail Nathalie (see below).*

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### **Scope and learning objectives**

The course addresses different perspectives on social-ecological systems and their resilience, adaptability and transformability. The concepts are discussed in lectures, seminars and during the student's own studies of literature as well as in-group work. We specifically analyze the concepts in relation to sustainable planning.

*After passing the course, the student should be able to:*

1. explain and use central concepts in resilience thinking
2. discuss how these central concepts relate to each other
3. reflect on and critically discuss resilience thinking in general and in relation to sustainable planning in particular
4. apply (perform, present and discuss) social-ecological resilience in a planning context and present this application orally and in written.
5. present written work in a scientifically sound way
6. work in a collaborative project setting

### **Learning activities**

The course equals 200 hours of work, whereof which 48 hours are spent in class. Most of the learning will take place outside the classroom (reading, reflecting, and preparing for seminar, writing the home exam and project group work). The scheduled activities are structured as lectures, literature seminars, study visits and project work in groups including supervision, presentations and evaluations.

*Literature seminars:* The objective with the literature seminars is to gain understanding of the key concepts in resilience thinking, and jointly reflect and critically discuss resilience thinking based on the readings. The objective is also to develop skills in group discussions, peer learning and performing tasks together. The literature seminars will help you prepare for the home exam and are an opportunity to learn together. The seminars are design around the learning objectives 1-4. Instructions for each seminar will be uploaded on Canvas.

*Home Exam:* After the first half of the course, you will write an individual home exam covering the central concepts of the course. Your task is to show that you have achieved learning objectives 1-3 and 5. A detailed instruction for the home exam including grading scheme will be posted on Canvas.

*Group project:* During the second half of the course, you will work in groups to perform a resilience assessment that is to be presented as a written report and orally in class. During this project you will apply the theoretical content of the course in real planning cases. This

kind of complex system analysis requires inter-disciplinary collaboration, wherefore collaboration skills are emphasised in the course. This activity is related to all learning objectives, but specifically objective 3 and 5.

*Field visit:* A field visit will be organised where different sites, activities, initiatives working with sustainable urban development in the Stockholm region are showed and presented. The aim is to link the theoretical part of resilience thinking to real world cases and is an important preparation for the group project. This learning activity is of importance for learning objectives 3 and 4.

*Use scientific referencing:* When you write (literature assignments, home exam, project report), you are expected to make proper scientific references to the literature and other sources. This is an important skill in the master thesis project and is therefore highlighted during this course by a specific learning objective no 5. For more information on writing, consult the course documents “Tips for Acknowledging Sources” and “Harvard referencing” on Canvas.

## Grading criteria

All grades build on each other meaning that you must fulfil the criteria for grade E to achieve grade C and so on.

Learning objectives: <i>After passing the course the student should be able to</i>	Examination	Grades	Grading criteria for grade E	Grading criteria for higher grades
1. explain and use central concepts in resilience thinking	Home exam (TEN) Seminars (SEM)	C – E	Ability to, with own words explain central concepts by i) a correct definition and ii) examples showing how the concepts can be used. Answers all questions in the home exam. Actively participate in all seminar discussions.	C) Ability to motivate central concepts and explain these by using own, relevant examples.
2. discuss how these central concepts relate to each other	Home exam (TEN) Seminars (SEM)	A – C – E	Ability to with own words and by examples describe how the central concepts are related and discuss the importance of some of these relationships. Answers all questions in the home exam. Actively participate in all seminar discussions.	C) Ability to the major part correctly describe a complex social-ecological system based on the relations between central concepts in resilience thinking. ----- A) Ability to in a correct way describe a complex adaptive social-ecological system based on the relations between the resilience thinking concepts and motivate and discuss how this complexity is relevant from a sustainability perspective.
3. reflect on and critically discuss resilience thinking in general and in relation to sustainable planning in particular	Home exam (TEN) Seminars (SEM) Project work (PRO)	A – C – E	Ability to with own words describe advantages and drawbacks with resilience thinking in general and from a relevant societal planning example. Answers all questions in the home exam. Actively participate in all seminar discussions. The project report includes a reflection about how the resilience thinking model has been useful in the project.	C) Ability to with own words reason about advantages and disadvantages with resilience thinking in general, and from an own, relevant societal planning example. The project report includes a reflection about how the resilience thinking model is useful in societal planning in general. ----- A) Ability to argue for an own approach in relation to resilience thinking. The project report suggests relevant ways to handle the

				disadvantages of the resilience thinking model when applied in societal planning generally.
4. apply (perform, present and discuss) social-ecological resilience in a planning context and present this application orally and in written	Seminars (SEM) , Project work (PRO)	A – C – E	Ability to from a selected and delimited social-ecological system in a planning context, analyse its resilience by the use of the Resilience Assessment Workbook. Presents the analysis in a written report that follows the instructions. Ability to discuss the application and results of the analysis and summarise the analysis during a short oral presentation. Active participation in all seminar discussions.	C) The majority of the considerations in the analysis is motivated. The report is structured in a logical way and presents the project work in the major part in a correct and relevant way. The analysis is thoroughly discussed and reflected upon. The oral presentation is communicative. ----- A) All considerations in the analysis are motivated. The report is easy to read and reasoning and presents the project work in a correct and attractive way. The oral presentation is well adapted to the target group.
5. present written work in a scientifically sound way	Home exam (TEN) Project work (PRO)	C – E	The home exam and the project report is structured in a logical way and is to the majority written in a scientifically correct way.	C) The home exam and the project report is well written, easy to follow and written in a scientifically correct way.
6. work in a collaborative project setting	Project work (PRO)	Pass/Fail (endast E-nivå)	Participation in all parts of the project work and the project is executed in active collaboration within the project group. The project progress and results are presented with joint responsibility among the project group members.	

## Examination

The course is examined in three modules – Seminars (SEM), 2 hp, Home exam (TEN), 3 hp and Project work (PRO), 2,5 hp.

### *Seminars (SEM) – 2 hp, Pass/Fail*

In order to pass you must fulfil the criteria for grade E for learning objectives 1-4. This requires that you have prepared for and actively participate in all seminars and during the whole seminar, according to the seminar instructions (posted in Canvas). If you for some reason would miss parts of a seminar or a full seminar you should inform the course assistant beforehand. It is possible to make up for missing part of one seminar, or one full seminar, by preparing for and attending the extra seminar. The assignment for the extra seminar will stand in relation to the amount of time the student has missed in the regular seminars. The workload for the extra seminar will be somewhat more demanding than preparing for and taking part in the regular seminars.

### *Home exam (TEN) – 3 hp, A-F*

In order to pass this module you must fulfil the criteria for grade E for the learning objectives 1-3 and 5. You are expected to use the course literature and possibly other scientific sources to answer the questions in the home exam. It is allowed to work in pairs or in groups, but each exam should be handed in individually and they will be checked for plagiarism, i.e. it is not allowed to write the same text as any other student. All questions in the home exam must be answered. The module grade is a weighted grade based on assessment of all

included learning objectives. A is the highest grade and Fx means that the student did not pass a learning goal. If you receive the grade Fx, you get a chance to raise your grade to an E by submitting a revised version of the home exam and one additional question given to you by the course team after the course. If this is not done successfully, the grade will be F. It is not possible to improve given grades if A-E.

*Project work (PRO) – 2.5 hp, A-F*

In order to pass this module you must fulfil the criteria for grade E for learning objectives 3-6. The group project includes researching your topic, going through the steps in the resilience assessment, participate in tutorial meetings, writing your report, preparing and giving a presentation, evaluating another group’s report and presentation, and revising your own report for the final upload on Canvas. The module grade of PRO is a weighted grade of the assessment of all included learning objectives. The general approach is that students in a given group will be given the same grade. A is the highest grade and Fx means that the student did not pass a learning goal. Fx means that it is possible to pass if an extra task is completed successfully. In that case the grade will be E. If this is not done successfully, the grade will be F. It is not possible to improve given grades if A-E.

The **final course grade** is calculated as a weighted average of TEN and PRO.

	Home exam (TEN)				
Project work (PRO)	A	B	C	D	E
A	A	B	B	C	D
B	A	B	C	C	D
C	B	B	C	D	D
D	B	C	C	D	E
E	C	C	D	D	E

The home exam and project work report will be checked for plagiarism by the use of the digital tool URKUND. Plagiarism will be reported to KTH’s Disciplinary Committee, which might decide to suspend a student from KTH for a period of 3 weeks to 6 months. To avoid plagiarism it is very important to use scientific referencing properly. If you have questions about referencing, please ask the course team ahead of submission deadlines.

**Students with disabilities**

Support via Funka: If you have a disability, you may receive support from Funka. Read more at: <https://www.kth.se/en/student/studentliv/funktionsnedsattning>

Inform the teacher: We also recommend that you as soon as possible inform the teacher and course assistant regarding any need you may have in relation to a disability. Funka does not automatically inform the teacher.

**Information about registration and deregistration**

Please register online. Please do not register on the course unless you are fully certain that you want to take it. If you change your mind and want to deregister from the course later, it is very important that you let us know by e-mail and that you deregister online.

**Administrative questions**

If you have any problems or questions regarding registration on the course, or questions relating to registration of grades after the course, please contact administrator Marie Larsson directly by e-mail: mlinden5@kth.se

**Course literature**

A list of the course literature is presented on Canvas.

## Welcome to the course!

Rebecka Milestad, Sara Borgström and Nathalie Bergame