

COURSE DESCRIPTION

CC1– SUSTAINABLE ENERGY DESIGN FOR SOCIAL DEVELOPMENT, INTENSIVE COURSE

SET UP OF THE COURSE

CC1 is structured as follows: The students will work in groups with assignments on sustainable energy design with help of design/architecture/engineering methods and tools. In parallel to the group work, lectures, guest lectures and tutoring is given. The content of the assignment is to analyze energy practices/challenges and suggest a concept/solution to improve sustainability within the following topics: 'Waste to energy', 'wind/solar/hybrid solutions' and 'energy-efficient eco-village/city development'. The students will identify problems, context, stakeholders and users and work with a given case study. They will apply different methods and tools, and develop a design brief related to a concept/solution (S/C). The S/C can be: a product, a planning scheme, a service, or a manual/interactive solution. Environmental, usability, economy, technology and social impacts of the concept/solution should be evaluated (trade-off). The students will discuss the concept/solution with stakeholders and finally present pro and contra arguments for the solution based on the economic, ecological and social (cultural) impacts.

Internal examination (assignment reports)

The internal examination comprise of the assignment reports. The assignments are carried out in group work, each group consisting of 3-4 students. The groups will submit 10 assignment reports (1/2 -1 page) and 1 final report (up to 15 pages incl. pictures and references). The assignment reports and the final reports heading must contain: 1. The assignments number, 2: The group number and 3. All group participants' names. The final report can be a compilation of the 11 assignment reports with an overarching text. Deadline to submit the final report is 6 April 2016.

Literature: Articles, books reports etc. are provided electronically two weeks before course start and during the course.

Supervision

The group work is supervised by the responsible teacher(s) and an assistant

GRADING

The grade for the course is based on: 35% on the presentation and the single assignment reports, and 65% on the final report, which can build on the assignment reports. The final report: 15-20 pages including 2 pages references and illustrations, 2,5 cm page margins, Times New Roman 12, single spaced.

COURSE PLAN, TASKS AND DELIVERABLES

DATE	Lectures/Activities	Tasks and Deliverables	Art.No
<i>DAY 1</i>	12.00-13.00 Introduction of course, small BO session (20, 20, 20) 13.15-14.45 Lecture sustainable design and social sustainability (including break) <ul style="list-style-type: none"> • Sustainable Design • Principles, methodologies and models • Social Sustainability • Quadruple bottom line 14.45-15.15 Lunch Break	13.00-13.15 Break 15.15-17.00 Guided Group work (2-3): A1-A3 <ul style="list-style-type: none"> • A1 Discuss the case and draft sustainability problems • A2 Describe specific challenges related to background and settings • A3 Pinpoint Stakeholders and possible solutions/concepts (S/C) 	P1, P4 P11 P22
<i>DAY 2</i>	13.15-14.45 Lecture: The design process (including break) <ul style="list-style-type: none"> • Problem and context identification and design process • Idea generation methods 14.45-15.15 Lunch Break	12.00-13.00 Presentation and discussion of results 13.00-13.15 Break 15.15-17.00 Guided Group work (2-3): A4-A6 (with Cases) <ul style="list-style-type: none"> • A4 Identify challenges (technical, functional, operational) for pin-pointed S/C • A5 Draft ideas to meet challenges • A6 Decide on a S/C and describe brief until idea generation 	P0, P2 P13
<i>DAY 3</i>	12.00-15.00 Seminar Political decision-making & Stakeholder Practice	13.10-13.30 Break 14.30-15.00 Discussion with stakeholders A10 Discuss feasibility of S/C with stakeholders	P3, P8 P12
<i>DAY 4</i>	13.15-14.45 Lecture: Stakeholder Inclusion and User Involvement (including break) <ul style="list-style-type: none"> • Stakeholder or User • Personas, observations, interviews, focus groups • Design brief 14.45-15.15 Lunch Break	12.00-13.00 Presentation and discussion of results 13.00-13.15 Break 15.15-17.00 Guided Group work (2-3): A7-A9 <ul style="list-style-type: none"> • A7 Describe the primary users (two stereotyped personas) • A8 Map stakeholders • A9 Write a design brief for a solution to meet the challenges identified 	P5, P10, P24
<i>DAY 5</i>	13.20 -14.00 Lecture: Field research and elements of Case Study 13.00- 14.15 Break 15.15-15.30 Conclusion of course and feedback/questionnaire	12.00-13.00 Presentation and discussion of results 13.10-13.20 Break 14.15-15.15 Case study movie	P14-20
<i>DAY 6</i>	15.00-16.30 Tutoring of Groups 30 min each, M. Keitsch, B. Singh		
<i>DAY 7</i>	15.00-16.00 Tutoring of Groups 30 min each, M. Keitsch, B. Singh		
following	Tutoring of Groups S. Bajracharya, S. Shrestha		
	SUBMIT FINAL REPORT (INTERNAL EXAMINATION)		