



HÖGSKOLAN I GÄVLE

Advanced Projects in Electronics 7.5 cr

Avancerade projekt i elektronik 7,5 hp

Set by Faculty of Engineering and Sustainable Development

Version

Set at

Valid from

10/11/13

HT2014

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|----------------------------|--------------------|
| Level | A1F |
| Education level | Second cycle |
| Course identifier | EEA307 |
| Credits | 7.5 cr |
| Main field of study | Electronics |
| Subject group | Electronics |
| Disciplinary domain | Technology 100.0 % |

Learning outcomes

After completion of the course the student shall be able to

1. state the principles of project management
2. state a specific technical area related to on-going research conducted in Electronics at the Faculty of Engineering and Sustainable Development
3. conduct an advanced science project by applying project management principles
4. state the relevance of the technical knowledge developed throughout the project, as well as reflect on the project management principles used in practice.

Course content

Theoretical base:

Introduction

Determining Directions and Initial Specifications

Work Breakdown Structure

Project Scheduling

Developing Project Teams

The Project Team's Environment

Leading Project Teams

Writing Project Reports

Project Execution:

Use of project management principles in practice by conducting a limited research project
Reporting of technical achievements in a standardized scientific (IEEE) way
Project logbook with reflective analysis
Presentation in public

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| Teaching | The first part of the course consists of literature studies and lectures on project management. The middle part of the course consists of working actively with a project in a student group (max. four students) solving a limited advanced problem within a research field of Electronics. The problem could be based on one or several of the advanced courses in the Master's Program in Electronics, but is preferably conducted as a limited problem defined by any of the electronics research groups of University of Gävle. The final part consists of reporting and analysing the project as well as public presentation. | | | |
| Prerequisites | English language proficiency equivalent to (the Swedish upper secondary school) English course 6/B. All previous advanced level courses within the Master's Program in Electronics must be finished before this course. | | | |
| Examination | Written report that specifies the group's technical results and the methodological approach used to investigate and solve the advanced technological problem. Documentation logbook that describes the use of relevant project management principles in the project including a reflexive evaluation of the group activity, the application of management principles, gained knowledge, and general outcome. | | | |
| | Credits are awarded after completed course. The grades will be based on the execution of the advanced project on a team level, reviewed both in terms of the explicit use of project management principles and in terms of the technical result of the project and presentation. | | | |
| Grade | A, B, C, D, E, Fx, F | | | |
| Limitations | The course is only given once a year and based on the project nature of the course with only one examination every year. Students that fail are welcome to join a new project the next time the course is given. | | | |
| Other regulations | Criteria for final grade will be handed out at the beginning of the course. Additional articles and relevant books may be required to fulfill the project part of the course. | | | |
| Sustainable environment | Content with sustainable development is not relevant to this course. | | | |
| Module | 0010 | Written report and audio-visual presentation | 3.5 cr | Grade: AF |
| | 0020 | Documentation logbook | 4 cr | Grade: AF |