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Later in the Year

Additional
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FAQs

Key Dates etc

Advice

ELEN4002A/4012A

Electrical / Information Engineering Laboratory

Prof. Ken Nixon, Dr. Hugh Hunt

School of Electrical and Information Engineering
University of the Witwatersrand, Johannesburg

2019



A Capstone Course

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- ▶ Complete, significant engineering study requiring laboratory (i.e. *practical*) work
- ▶ Tests application of curriculum knowledge, problem solving and communication
- ▶ Tests readiness for entry into engineering profession



Course Outcomes

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The ECSA exit level outcomes related to:

- ▶ Problem solving (complexity)
- ▶ Use of specialist and fundamental knowledge
- ▶ Investigations, experiments and data analysis
- ▶ Selection and effective use of appropriate tools
- ▶ Professional and technical communication
- ▶ Individual and team working
- ▶ Independent learning ability

must be met.



Assessment

Components:

1. Project Planning
 - ▶ Part 1: Project Specification Outline
(2 page group report)
 - ▶ Part 2: Project Plan
(5 page group report)
2. Project Report (individual paper with appendices)
3. Presentation (conference)
4. Interview

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Also Note:

Engineering notebook on demand, Agendas and minutes of meetings are to be submitted with your project report. A poster are to be prepared for Open Day.

All assessment forms are available on the course homepage



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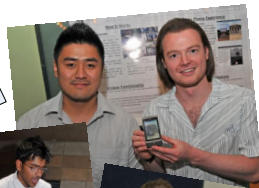
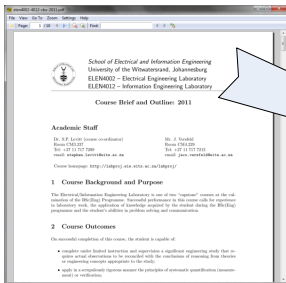
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Overview of the Start (Feb-April)

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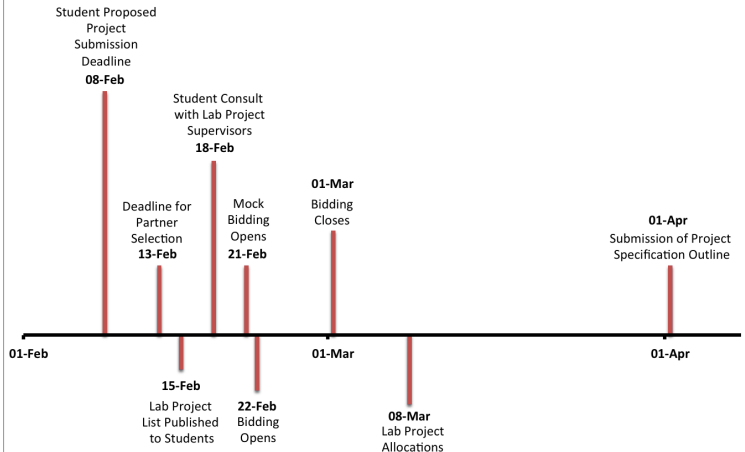
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4th Year Lab Project: February - April 2019



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Advice

- ▶ Work in groups of *two* on a project
- ▶ *Both* partners need to login to the website and select each other
- ▶ **Write down the group password!**
- ▶ No further activities can be conducted until you form a group
- ▶ If there are an odd number of students, we will group the single remaining student with one of the existing pairs



Review Project Proposals

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Advice

- ▶ Proposals will be published on the course website for review
- ▶ Most projects are open to both EEs and IEs
- ▶ An EE and IE can work together on a project



Bid for Projects

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Advice

- ▶ Meet with supervisors to obtain bidding rights
- ▶ Bidding rights can be obtained 1 week before bidding opens
- ▶ Each group has to make 3 bids - a 1st, 2nd and 3rd choice
- ▶ Up to 6 groups can bid for one project
- ▶ Can change bids as often as you want
- ▶ Mock bidding period to understand the system
- ▶ Tip: obtain bidding rights for **more than 3 projects**
- ▶ You are obligated to attempt to find a partner, and participate in the bidding process (SP requirement)



Example of Bidding

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	No of Groups with Bidding Rights	Status		
ge	12	13G06 13G13	13G15 13G08	
variable sources into the grid	10	13G03 13G11	13G07 13G36	13G34 Initial chance of getting 1st choice: 37.5%
propagation characteristics in XLPE MV power cables	6	13G02 13G23		13G07 Initial chance of getting 3rd choice: 5.0%
4V lab pollution chamber	4		13G07 13G14	13G23 Initial chance of getting 2nd choice: 40.0%
Current probability of getting either your 1st, 2nd or 3rd choice project:				
64.4%				



Project Allocation

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Advice

- ▶ Projects are quasi-randomly assigned among the bidders
- ▶ 1st choice bids more likely to be awarded than 2nd choice bids etc.
- ▶ From past experience, around 60% of groups get their first choice
- ▶ Placing all your bids for popular projects is a risky strategy — you may not be allocated any projects
- ▶ **Project allocation is final** - no swaps of any kind are allowed



Project Planning Part 1 - Project Specification Outline

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Advice

- ▶ 1st 4th Year submission deadline
- ▶ 2 Page, Group submission
- ▶ Overall project specification
- ▶ Milestones
- ▶ Risks
- ▶ Required resources



Later in the Year (June/September)

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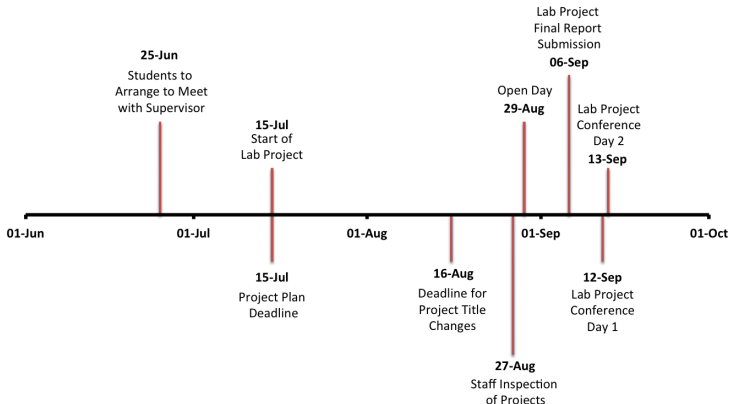
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4th Year Lab Project: June - September 2019



Later in the Year

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Advice

- ▶ Meet with supervisors to discuss the Project Plan after mid-year exams
- ▶ Project begins straight after June/July vacation, day of Project Plan submission (3rd block)
- ▶ School Open Day to show off your work
- ▶ Project Report submission
- ▶ Conference presentation and interviews



Additional Information — FAQs

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Advice

- ▶ How do we obtain bidding rights?
- ▶ Can we change our bids?
- ▶ Why do we have to bid for three projects?
- ▶ What happens if we are not allocated a project?
- ▶ ...

See the FAQ link on the course home page

<http://labproj.eie.wits.ac.za/labproj/>



Additional Information continued

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- ▶ Course brief and outline
- ▶ “Key Dates for Fourth Years” handout
- ▶ The Sakai mailing list
- ▶ Contact Dr Hunt or Prof. Nixon if you have any questions or problems



Some Friendly Advice

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Meet the deadlines!



Some Friendly Advice

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Meet the deadlines!

Lastly and most importantly:

Enjoy it!

