

ECE 480 – Spring 2018
Lecture Schedule
Ver. 1.0

Professor Lalita Udpa

Office: 2325A Engineering Building
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(Office Hours: MWF 11:20AM-NOON)

Professor John Albrecht

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While emailing us - Please include ECE480 in the subject line

Lecture hours: MWF 10:20-11:10AM
136 Chemistry

- **Attendance Policy:** All students must attend all lectures (except by prior approved arrangement or valid university excuse). *Attendance will be taken.*
 - **Schedule may change due to unforeseen circumstances & will be announced in class or by email.**
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Week 1:

- **Project Preference ranking forms due by Wed 1/10 in class.**
- **Teams will be assigned and notifications made at Friday's lecture (1/12).**

Jan. 8 – Class Overview, presentation of project descriptions, handout of preference ranking forms. (Udpa)

Jan. 10 – Guest Lecturers: Mr. Brian Wright, “ECE Technical Services, Building Your Prototype and ECE Shop Resources for your Team Projects”.

Ms. Roxanne Peacock, on parts ordering and purchasing policies.

A laptop PC will be assigned to each team.

[Lecture Notes -- Building Your Prototype](#)

Jan. 12- Introduction of team roles, project planning and engineering notebooks. (Udpa)

[Engineering Notebook Description](#)

[Notebook Overheads](#)

[Team Roles Description](#)

[Team Roles Overheads](#)

Week 2:

Jan. 15- No class – (MLK day)

Jan. 17- Assignment and explanation of proposal; overview of required reports; RFP distributed; policy on plagiarism, citing other work, and writing expectations.

(Albrecht)

[Team Design](#) | [Teaming Lecture](#) | [Memo](#) | [Request for Proposal](#)

Jan 19 - Technical Lecture: Circuit protection, power supply circuits, and thermal models. - [Power Supply Lecture Slides](#)

Week 3:

Jan. 22 - VOC: Understanding the Customer's Viewpoint (Albrecht)

[Lecture Overheads](#)

Jan 24 -- Guest Lecture: Prof. Erik Goodman
Intro to Project Management and MS Project

[Lecture Notes- Project Management and MS Project Usage](#)

[Lecture Notes- Project Management and MS Project Usage -- .pdf file](#)

Jan. 26 - Engineering Design Process, Project Specifications, Project Planning

Lecture Notes: [Engineering Design Review](#), [Engineering Design Review Example](#)

Week 4: Pre-proposal due to facilitator at group meeting during week 4
GANTT chart due to facilitator, Prof. Albrecht on Feb 2 by 5:00PM.

Jan 29 – Six Sigma Overview and Introduction to Design for Six Sigma.

[Lecture Overheads](#)

Jan 31 - Quality Function Deployment (QFD) Customer-Driven Development

[Lecture Overheads](#)

Feb. 2 – Function Definition - Powerful Problem Analysis Technique.

[Lecture Overheads](#)

Week 5:

- **Voice of Customer assignment due by email (exact date TBA)**
- **Work with your team on your page for the Design Day Booklet, due about week 5 or 6 (exact date TBA).**
- **Practice oral proposal presentation with facilitator at weekly meeting.**

Feb 5 – Technical Communications: (Udpa)

[Technical Presentation](#) | [Technical Writing](#)

Feb 7 – No class - Work on Proposal Presentation

Feb. 9 – Guest Lecturer: Intellectual Property, Mr. Steven Noll, patent attorney (Schiff Hardin, Chicago).

[Example Patent used by Mr. Noll](#)

[Mr. Noll's notes on IP](#)

Week 6:

First draft of Design Day Program Booklet due on Feb 16th by email to Profs Albrecht and Udpa

Feb 12 – Team Oral Proposal Presentations:

Teams 1,2 in Room Regular Classroom and Teams 3,4 in FAE 119

Feb 14 – Team Oral Proposal Presentations:

Teams 5, 6 in Room Regular Classroom and Teams 7,8 in FAE 119

Feb 16 - Team Oral Proposal Presentations:

Teams 9, 10 in Room Regular Classroom and Teams 11, 12 in FAE 119

Week 7:

Final proposals due to Facilitator, Sponsor & Profs. Albrecht and Udpa, Friday, Feb. 23 at 5:00; submit electronically.

Feb 19 – Team Oral Proposal Presentation:

Teams 13,15 in Room Regular Classroom and Teams 16 in FAE 119

Feb 21 - TBD

Feb. 23- Guest speaker – “Entrepreneurship and small business start-up”- Paul Jacques Spartan Innovation

Week8: **Business canvas assignment (exact due date to be announced)**

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Feb 26 – Entrepreneurship and Business Model.

Feb 28- Entrepreneurship and small business start-up

Mar 2- – Guest Lecture “*Future of Transportation and Energy*” Linos Jacovides

Week 9 - Spring Break - March 5-9

Week 10:

- **Photocopy of Engineering Notebook (up to date) due to facilitator at weekly meeting**
- **Business canvas assignment (exact due date to be announced)**

March 12 - Demo 1 – (Sign-up sheet will be posted on the Lab door for Demo schedule)

March 14 – Demo I (Sign-up sheet will be posted on the Lab door for Demo schedule)

March 16--- Demo I (Sign-up sheet will be posted on the Lab door for Demo schedule)

Week 11:

March 19 - Guest Lecture: Dr. Asif Naseem, Vice President, Oracle.
“Thirty years in engineering; if I knew then what I know now!”

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March 21– Guest Lecture: Dr. Asif Naseem, Vice President, Oracle.
“Thirty years in engineering; if I knew then what I know now!”

March 23 – TBD

Week 12:

Mar 26 – Standards Lecture and Design Issues (L. Udpa)
[PLM notes, Standards](#)

Mar 28 – Guest lecture: Assistive Technology -- Stephen Blosser, MSU RCP

Mar 30 – TBD

Week 13:

Apr. 2 -- TBD

Apr. 4- TBD

April 6– TBD

Week 14:

- **Professional self-assessment papers due to Profs. Albrecht and Udpa and facilitators by Wednesday April 19, at 5:00PM (electronic submission)**

Apr. 9 – End Game Instruction: Discussion of final report and other deliverables.
Design Day procedures - (Udpa)
See detailed instructions for final report and all final deliverables [HERE](#)

Apr. 11 – TBD

Apr. 13- TBD

Week 15:

- **Professional self-assessment papers due to Profs. Albrecht and Udpa and facilitators by Wednesday April 19, at 5:00PM (electronic submission)**

Apr. 16 Demo 2 –

Apr. 18 – Demo 2

Apr. 20- Demo 2 –

Week 16:

- **Final Reports due Wednesday April 25 by 4:30PM (see below)**
See below for other last week deliverables

Apr 23 – Evaluation Day: Course evaluations (SIRS), evaluations of facilitators will be done in class. (L. Udpa)

Apr 25 – No class -- Team final preparation day - work on project/poster/oral presentation.

Special note: FINAL REPORTS DUE ELECTRONICALLY AND PRINTED BY TODAY as follows:

- To facilitator (electronic or printed, as they choose)
- To Prof. Udpa: electronic (docx file) AND (2) printed copies due in ECE Office, PRIOR to 4:30pm, for Prof. Udpa and judges to read.
(Make an additional printed copy to give your sponsor at Design Day, if they attend)

Judging Criteria ([HERE](#)).

Two copies of your POSTER (see instructions on web page) are not DUE until Design Day Friday morning, BUT you should be printing them (in person at DECS office on 1st floor) Wednesday or EARLY THURSDAY, as it takes a while to set up, print, and laminate it. Remember that about 30-40 teams (ECE + ME + CSE + others) all need their posters printed for Friday morning. Don't wait until 4:00PM on Thursday to print your poster! Mounting materials will be provided. Note: Print quota additions for poster printing and for printing multiple copies of final report will be available if requested (to Prof. Udpa) by Tuesday at noon. Otherwise, you're on your own to pay for additional quota if needed.

April 27 – Design Day

- In Engineering Building. Final oral presentations, demonstrations of projects, poster displays graded/judged by instructor and invited judges. Detailed schedule to be announced in Design Day Brochure. Prizes announced at award ceremony ~1:00pm.
- Most ECE classes cancelled through 3:00; plan to spend the day.

ALSO DUE:

- Final Notebooks due to facilitator by 5:00PM.

- Final CD with ALL documentation due to Prof. Udpa by 5:00PM. (May turn in CD and notebooks at ECE Office, labeled for ECE 480 (CD) or your facilitator (notebook)).

Week 17: Final Exam Week

- Due Monday, **April 30** by 12:00 noon: You must submit (electronically to Profs. Albrecht and Udpa) your evaluation of the contributions of your team members (get the evaluation form [here](#)).
- Due Monday, **April 30** by 5:00PM: You must have cleaned out your lockers, turned in all parts and project materials not going back to your sponsor, sent your hard-copy report and CD to your sponsor, and had the ECE Shop sign off on the form indicating completion, or grade will be withheld and possibly reduced.