PILOT LESSON

• Calendar entry
• Administrative issues
• Grading and points to letter-marks conversion
• Fundamental rules, hints, tips, and guidelines
• Important dates
• Course objectives and learning outcomes
• Course overview and syllabus
• Project reports and work log
• 399 Lab and support
• List of available projects
Calendar entry

• A team-based project completed under the supervision of a faculty member.

• The focus will be on Engineering design requirements and specification processes.

• Expected learning experience and outcome are based on the knowledge and skills acquired by the student in earlier and concurrent course work.

• Professional Engineers’ awareness and consideration with respect to the environment, ethics, equity, public and worker safety and health is also addressed.

• Projects may have a diverse nature serving societal needs.

• Multi-disciplinary projects are encouraged.

• Prerequisites: third-year standing.
Administrivia

- **Teaching Assistant:** Philip Baback Alipour <phibal12@uvic.ca>
- **Office Hours:** TBD
- **Course web page:** http://www.ece.uvic.ca/~elec399/
- **Lectures:** Tuesday 1:30pm – 2:30pm.
- **Location:** ECS-125
- **Textbook:**
  
Grading

• **Progress Report:** (includes Work Log, Milestones) 25%
  – See the sample provided online.

• **Class Presentation:** 15%
  – Prepare a number of slides.
  – Give a short talk ('elevator-pitch').

• **Final Report:** (includes Work Log, Milestones) 60%
  – See the project rubric provided online.
  – To be marked by supervisor.
## Points to letter-marks conversion table

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points Range</th>
<th>Letter Mark</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
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<td>90 - 100</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>85 - 89</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>A-</td>
<td>80 - 84</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>77 - 79</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>73 - 76</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>70 - 72</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>65 - 69</td>
<td>Pass</td>
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<tr>
<td>C</td>
<td>60 - 64</td>
<td>Pass</td>
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<td>E</td>
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<td></td>
</tr>
<tr>
<td>N</td>
<td>0 - 49</td>
<td>Fail, did not write examination or otherwise complete course requirements by the end of the term or session, no supplemental exam</td>
<td></td>
</tr>
</tbody>
</table>
Rules, hints, tips, guidelines

• UVic regulations fully apply.

• Special problems – notify the Instructors/TA in advance.

• Attend classes.

• Check the course web page periodically.

• Observe the deadlines.

• Feedback is welcome.
Important Dates

• Deadlines:
  – **September 23**: Team Selection.
  – **October 7**: Project Selection.
  – **November 4**: Work Log, Milestones.
  – **November 18**: Work Log, Milestones.
  – **December 2**: Final Report, Work Log, Milestones.

• Class Presentations:
  – **November 4**: schedule to be defined.
  – **November 18**: schedule to be defined.
  – **November 25**: schedule to be defined.
Course objectives

• To provide an opportunity for students to carry out a design project working as a team of 3 to 5 persons.

• To expose students to system analysis and design phases:
  – Planning
  – Analysis
  – Design
  – Implementation
  – Testing

• To lay the groundwork for future courses that delve into implementation and prototyping (such as, 499).
  – 399 focuses on design, not implementation.

• To expose students to engineering practice issues, such as environment, ethics, equity, public and worker safety and health.
Learning outcomes – Ability To:

• Define project goals and specs
• Create the list of deliverables
• Review the prior art (includes literature review)
• Model and simulate the system under design
• Estimate the system’s performance
• Perform project management
  – Break the project into tasks
  – Assign responsibilities to team members
  – Organize the time table
Course overview

1. Introduction – pilot lesson (Sept. 9, Instructors/TA).
2. Design process overview (Sept. 16, ECE Dept).
3. Guest lecture (Sept. 23).
4. Design methodology and tools overview (Sept. 30, ECE Dept).
5. Guest lecture (Oct. 7).
7. Guest lecture (Oct. 21).
8. Guest lecture (Oct. 28).
9. Elevator-pitch presentation (Nov. 4).
10. Elevator-pitch presentation (Nov. 18).
11. Elevator-pitch presentation (Nov. 25).
12. Experience survey (Dec. 2).
Syllabus (regular lectures by ECE Dept)

- **Design process overview:**
  - System and sub-system engineering.
  - Component engineering.
  - Integration and system test.

- **Design tools and methodology overview:**
  - Engineering design flow.
  - Digital design tools.

- **Project management overview:**
  - Time management.
  - Resource allocation.
  - Contingency planning.
Project Report, Work Log, Milestones

• **Progress and final reports:**
  
  – **Should contain** at least the following sections:
    * Introduction (overview)
    * Project description and deliverables
    * Design specifications
    * Review of existing designs (prior art)
    * Project discussion and achievements
    * Conclusions and future work
    * References
  
  – The **project rubric** is posted online.

• **Work log** and **Milestones:**
  
  – Specify the tasks and hours spent by each team member.
  – Specify major achievements.
399/499 Lab and Support

• Is there a Lab dedicated to 399?
  – You can use ELW-B336 (the 499 Lab)

• If you need technical support:
  – Talk to your supervisor.
    – (Advise your supervisor that hardcopies of the reports will be submitted).

• Financial support:
  – None (it will become available for 499)
List of available projects

1. The list of pre-approved projects is to posted online:
   http://www.ece.uvic.ca/~elec399/

2. Examples of projects in the previous years:
   - Electronic Monitoring (Dr. Adam Zielinski)
   - Real-Time Wireless ECG (Dr. Xiaodai Dong)
   - Smart Bus: Hotspot (WiFi) on City Buses (Dr. Fayez Gebali)
   - Projects from Axys Technologies (Reo Phillips)
Questions, feedbacks