

COEN 6741 Grading Scheme

- ▶ Test#1: 30%
- ▶ Test#2: 30%
- ▶ **Project: 40%**

COEN 6741: Project Grading Scheme

► Project (40%)

- 60% Project Report
- 20% Project Presentation (Posters)
- 10% Participation (Peer Evaluation)
- 10% Project Demo (TA's Evaluation)

COEN 6741: Project Report

➤ max. 20 pages (w/o code)

1) Introduction

2) Instruction Set Architecture Design and Encoding

3) Datapath Design

4) Control Unit Design

5) Simulation and Testing Results

6) Conclusions



Handling Hazards


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COEN 6741: Project Presentation

➤ Poster incl. Q&A

- 1) Objective
 - 2) Instruction Set Architecture Design and Encoding
 - 3) Datapath Design
 - 4) Control Unit Design
 - 5) Simulation and Testing Results
 - 6) Conclusions
 - 7) Poster Quality
 - 8) Answering Questions
- 
- ```
graph LR; A[3) Datapath Design] --> B[Handling Hazards]; C[4) Control Unit Design] --> B;
```
- Handling Hazards

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- 10% Project Demo (TA's Evaluation)



# Peer Assessment



## Detailed evaluation results for COEN6741W Winter 2017

Please note:

- Private comments for the professor will not be shown to the students.
- Comments made about individual group members are seen by their peers, but are listed anonymously.
- Only the professor can see the identity of the author of individual comments.
- Comments can be edited by the professor before the results are released to the class, after the evaluation deadline has passed.

### **A**

Group Size: 4

Completed Evaluations: 0

Private comments for the professor:

#### **Evaluation of Sharathsrinivasan Anthur (40040574):**

|         | Conceptual Contributions | Practical Contributions | Work Ethic | Average Across All |
|---------|--------------------------|-------------------------|------------|--------------------|
| Average | 0                        | 0                       | 0          | <b>0</b>           |

#### **Evaluation of Muhammadtaha Qureshi (27741855):**

|         | Conceptual Contributions | Practical Contributions | Work Ethic | Average Across All |
|---------|--------------------------|-------------------------|------------|--------------------|
| Average | 0                        | 0                       | 0          | <b>0</b>           |

#### **Evaluation of Vivek Shah (40026089):**

|         | Conceptual Contributions | Practical Contributions | Work Ethic | Average Across All |
|---------|--------------------------|-------------------------|------------|--------------------|
| Average | 0                        | 0                       | 0          | <b>0</b>           |

#### **Evaluation of Eshwari Mutla (40020262):**

# COEN 6741: Project Peer Evaluation

- ▶ Private Comments on Team members
  - Cooperation
  - Conceptual Contributions
  - Practical Contributions
  - Work Ethic
- ▶ Scores out of 7 (1 being the lowest)
  - Evaluations with “only” 6 and 7 will be VOID
- ▶ Only average will be displayed (no individual scores)



# COEN 6551: Project Peer Evaluation

- **On-line** at <https://pes.concordia.ca>
- **Comments** made about individual group members are seen by their peers, but are listed anonymously.
- Only the professor can see the **identity** of the author of individual comments.
- **Private comments** for the professor will not be shown to the students.

# COEN 6741: Project Grading Scheme

## ► Project (40%)

- 60% Project Report
- 20% Project Presentation (Posters)
- 10% Participation (Peer Evaluation)
- 10% Project Demo (TA)
- 0% Confirmation of Originality (mandatory!)

# Report

## Confirmation of Originality

Faculty of Engineering and Computer Science

Course Name & Number/Term: \_\_\_\_\_ Section: \_\_\_\_\_ Instructor: \_\_\_\_\_  
e.g., ENGR410/2                      e.g. M

Having researched and prepared this report for submission to the Faculty of Engineering & Computer Science, the undersigned certify that the following statements are to the best of my/our knowledge true:

1. The undersigned have written this report myself/themselves.
2. This report consists entirely of ideas, observations, references, information and conclusions composed or paraphrased by the undersigned, as the case may be, except for statements contained within quotation marks and attributed to the best of my/our knowledge to their proper source in footnotes or otherwise referenced.
3. With the exception of material in appendices, the undersigned have endeavored to ensure that direct quotations make up a very small proportion of the attached report, not exceeding 5% of the word count.
4. Each paragraph of this report that contains material which the undersigned have paraphrased from a source (print sources, multimedia sources, web-based sources, course notes or personal interviews, etc), has been identified by numerical reference citation.
5. All of the sources that the undersigned consulted and/or included in the report have been listed in the Reference section of the report.
6. All drawings, diagrams, photos, maps or other visual items derived from sources have been identified by numerical reference citations in the caption.
7. Each of the undersigned has revised, edited and proofread this report individually.
8. In preparing this report the undersigned have read and followed the guidelines found in Form and Style, by Patrick MacDonagh and Jack Borden (Fourth Edition: May 2000), available at <http://www.encs.concordia.ca/scs/Forms/Form&Style.pdf>.

Name: \_\_\_\_\_ ID No: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
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**Do Not Write in this Space – Reserved for Instructor**

# COEN 6551: Project Deadlines

## ▶ Project Reports:

- Wednesday April 11, before 5pm!
- Dr. Tahar's Mailbox in EV05.175 or ECE Dept. Secretary in EV05.139

## ▶ Poster Presentations:

- Thursday April 12 @ 11.45am!
- Classroom: H-557

# COEN 6551: Project Deadlines

## ▶ Peer Evaluations:

- Thursday & Friday, April 12-13
- On-line at <https://pes.concordia.ca>

## ▶ Project Demonstrations:

- Friday April 13 in H-811
- Time slots to be scheduled with TA

# COEN 6741: Test #1

## ▶ Test#1:

- Thursday, February 15 @ 11.45am
- Classroom: H-557
- Last Office Hours
  - ▶ Monday, February 12 @ 1:30-2:30pm
- Topics ...

# COEN 6741: Test#1 Topics

- ▶ Fundamentals of Quantitative Design & Analysis
  - Introduction and Terminology
  - Performance Measurements
  - Amdahl' Law
  - CPU Formula
- ▶ Instruction Set Principals:
  - Instruction Set Architectures (Stack, Accu, GPR)
  - Instruction Set Characteristics (6)
  - MIPS R3000
- ▶ Instruction Pipelining:
  - MIPS Instruction Pipeline
  - Pipeline Hazards (structural, data, control)
  - Exceptions & Multicycle Operations
  - MIPS R4000 Pipeline
- ▶ **Material allowed:** Only Calculators (closed book!)

# COEN 6741: Test #2

## ▶ Test#2:

- Thursday, April 5 @ 11.45am
- Classroom: H-557
- Last Office Hours
  - ▶ Wednesday, April 4 @ 1:30-2:30pm
- Topics ...



# COEN 6741: Test#2 Topics

- ▶ Memory Hierarchy Design
  - Memory Hierarchy (Organization, Access Time)
  - Cache (Organization)
  - Virtual Memory (TLB)
  - Main Memory
- ▶ Instruction-Level Parallelism:
  - Loop Unrolling
  - Dynamic scheduling (Tomasulo, Speculation)
  - Dynamic Branch Prediction (BHB, BTB)
  - Multiple Issue (Superscalar, VLIW, Vector)
- ▶ Thread-Level Parallelism:
  - Simultaneous Multithreading
  - Chip Level Multiprocessing
- ▶ **Material allowed:** Only Calculators (closed book!)

Good Luck 😊