Computational Thinking Lab

Peer-Led Team Learning (PLTL): Computing Concepts

Fall 2018, Spring 2019

What is PLTL

- Active, cooperative learning in small groups
- *Students helping, learning from other students*
- Facilitated by an undergraduate Peer Leader
- Beneficial to both students and leaders

Why PLTL?

Cone of Learning (Edgar Dale)

AFTER 2 WEEKS WE TEND TO REMEMBER...

10% of what we read
20% of what we hear
30% of what we see
50% of what we hear and see
70% of what we say
90% of what we say and do

NATURE OF INVOLVEMENT

READING
HEARING WORDS
LOOKING AT PICTURES
WATCHING A MOVIE
LOOKING AT AN EXHIBIT
WATCHING A DEMONSTRATION
SEEING IT DONE ON LOCATION
PARTICIPATING IN A DISCUSSION
GIVING A TALK
DOING A DRAMATIC PRESENTATION
SIMULATING THE REAL EXPERIENCE
DOING THE REAL THING

LECTURE

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CTL

PASSIVE

ACTIVE

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Typical CTL Session

• Simulate executing code:
  – Trace or act out lines of code, method calls…
• Write Code
  – Pair programming
• Exam review sessions
  – Jeopardy game using prior exam questions
• Practice solving spatial/logic puzzles
  – KenKen, toothpick puzzles, river crossing,…

Goal

Students help one another learn strategies for solving problems using programming.

Have fun doing it!

The CTL Pledge

• Try to enjoy the material (keep open mind)
• Attend and prepare for every class meeting
• Be an active learner
• Ask questions and volunteer answers
• Help others to learn material
  – General concepts, strategy, programming idioms
  – Do not share details of CSE 231 project implementations (no work on projects in the CTL)

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Expectations of Students

- Actively participate
- Come prepared
  - View assigned video & reading
  - Complete the week’s Pre Lab assignment before attending your CTL session (at least 75%)
- Be on time
- Stay on task:
  - Refrain from email, texting, phone calls, social networking, ...

Grading - Fall

Total possible points: 14 x 10 pts = 140 pts

- 90% (126-140) = 4.0
- 80% (112-125) = 3.0
- 70% (98-111) = 2.0
- 60% (84-97) = 1.0
- <60% (0-83) = 0.0

Extra credit: Compensate for up to 20 missed points by attending final exam review session, filling pre-post survey

Grading - Spring

Total possible points: 15 x 10 pts = 150 pts

- 90% (135-150) = 4.0
- 80% (120-134) = 3.0
- 70% (105-119) = 2.0
- 60% (90-104) = 1.0
- <60% (0-89) = 0.0

Extra credit: Compensate for up to 20 missed points by attending final exam review session, filling pre-post survey

Being Present is Key!

- MISSED MEETINGS CANNOT BE “MADE UP” EVEN IF EXCUSED
- Notify instructor to attend the other section, if possible.
- Use extra credit to avoid grade penalty
- In case of prolonged illness, notify instructor as timely as possible.
CSE 231 tips

• Read the book
• Watch the videos
• Read the *entire* project specifications (multiple times!) and *follow them*
• Practice taking the exams

Lifetime tips

• Being able to follow instructions is a necessary life-time skill.
  – Did you do something to earn a sweet treat today?

- Consent Form

• We would like to use your archived data to evaluate the effectiveness of the CTL
• Needed to justify continued investment of resources in the CTL