

As you arrive:

1. Start up your computer and plug it in.
2. **Log into Angel** and go to CSSE 120. Do the **Attendance Widget** – the PIN is on the board.
3. Go to the **Course Schedule** web page. Open the **Slides** for today if you wish.
4. Checkout today's project:

`Session20_Exam2Practice`

Session 21

Exam Review, C configuration and first look

Review for Exam

First C program

Project Time

Checkout today's project:

Session20_Exam2Practice

*Are you in the **Pydev** perspective? If not:*

Window ~ Open Perspective ~ Other then **Pydev**

Messed up views? If so:

Window ~ Reset Perspective

Troubles getting today's project? If so:

*No **SVN repositories** view (tab)? If it is not there:*

Window ~ Show View ~ Other

then **SVN ~ SVN Repositories**

1. In your **SVN repositories view (tab), **expand your repository** (the top-level item) if not already expanded.**

- If no repository, perhaps you are in the wrong Workspace. Get help.

2. **Right-click on today's project, then select **Checkout**.**

*Press **OK** as needed.* The project shows up in the

Pydev Package Explorer

to the left. Expand and browse the modules under **src** as desired.

Outline of today's session

- Exam 2 Review
- Changing your CSSE password
- Intro to C videos
- Watch C videos.
Hand in take-home quizzes over videos
 - ▣ Normally done as homework BEFORE class. But we'll do this first one in class together.
- C Workspace and Video Troubleshooting
- Project time

Exam 2 – same rules as for Exam 1

- **Monday, January 31, 7 p.m. to 9 p.m.**
 - ▣ **Olin 267 (Fisher) and Olin 269 (Mutchler)**
- **Format: 2 hours, same as previous exam.**
 - ▣ **Paper part (roughly 30%). Resources:**
 - Zelle book, **zellegraphics handout, create handout**
 - 1 double-sided sheet of notes that you prepare
 - ▣ **On-the-computer part (roughly 70%). Resources:**
 - Zelle book
 - Any written notes that you bring
 - Your computer and the files on it
 - Your own Subversion resources
 - **Any resources you can reach from the course web site by clicking only!**

- Optional REVIEW SESSION
- Sunday evening
- 7 p.m. to 9 p.m.
- in the CSSE lab, Moench F-217

- It is a 2 hour exam and most of you will complete it within 2 hours.
- But you have another hour as a “grace period”.
- So plan accordingly.

Major topics for Exam 2:

- Writing and calling *functions* with *parameters* that *return* values
 - Variables are *local* to the function in which they are defined
 - *Parameters* are values that come “into” the function from the caller
 - Send information back to the caller either by a *return* or by *mutating* a parameter
 - Functions that call functions that call functions... *Procedural decomposition*
- *Loop patterns, especially:*
 - *Nested loops* & nested structures (e.g. lists inside lists)
 - The *max/min pattern*
 - Getting input from the user using a *sentinel*
 - The *wait-for-event pattern*
- Variables are *references* to values
 - Hence, lists and most objects can be *mutated* by a function
 - Hence, functions can *share data* that both reference
 - *Box-and-pointer diagrams* for understanding this topic
 - Difference between *mutating* a parameter and *returning* a value
- *Using objects: constructors, methods and instance variables*
- The basics of *event-driven programming*, as in *tkinter* – *callback functions* and how they are called, share data, etc. Also the basics of *robot control*.

To prepare:

- Understand *everything* from Exam 1
- Do/study **Session 13** exercises on *sentinels* and the *max/min* pattern
- Do/study **Session 14** exercises on *nested loops*
- Work on your project
- **Write code, write code, write code!**
- **Practice debugging!**

Also:

- Examine Session20_Exam2Practice
- **Do the problems that you are unsure about.** They are GREAT practice problems.

Changing Your CSSE Password

- Should have received temporary password in email
- To change:
 - ▣ Launch **SecureCRT**
 - ▣ Click **QuickConnect** (2nd button)
 - Server: **derek.csse.rose-hulman.edu**
 - Username: *your usual user name*
 - ▣ When prompted for password, use the emailed temporary CSSE password
 - ▣ Once logged in enter: **kpasswd**
 - For old password, enter the emailed temporary CSSE password
 - For new password, use your regular Kerberos password (or whatever)

C videos

- Today we'll introduce the first set of C videos
- **BEFORE** Tuesday's class, **watch** the **2nd set** as described on the CSSE 120 Schedule page for **Session 22** and in HW 21.
And do the quiz on them.

- Tuesday's class will be:
 - ▣ Any questions?
 - ▣ Here are some problems to work on!

- Go to the CSSE 120 Schedule page now and **watch/download** the appropriate videos.
And do the quiz while watching.

- If your browser is IE (Internet Explorer), **right-click video links and Download or Save**

- You will probably get nasty messages about certificates not being signed. Tell your browser that you DO trust the site.

- If videos stutter while streaming, **right-click video links and Download or Save**
- Get help now if you can't watch the videos

- Get help during the video if you have trouble configuring your Eclipse workspace for C

Back to Python for your Project and the Exam!

- In Eclipse, choose File → Switch Workspace and switch back to Python before leaving today
- **Don't forget:**
 - ▣ **Sunday evening: Optional REVIEW SESSION**
 - 7 p.m. to 9 p.m.
 - CSSE lab, Moench F-217
 - ▣ **Monday evening: Exam 2**
 - 7 p.m. to 9 p.m.
 - Olin 257 (Fisher) and 259 (Mutchler)
 - ▣ Watch the next set of videos **before class Tuesday**
 - **And do the associated quiz**