C Programming

Welcome!!

Please check attendance individually.

(Mobile App)

Who am I?

Professor
Kweon, Tae Deok

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(+82) 010-9182-0690

Office Hours:
Mon. ~ Thr. (13:00 ~ 17:00)

01 Major in Computer Science

02 Samsung Electronics.
Video Display Division
(Advanced Tech.)

03 Samsung Global R&D Center
@shaghai (Director)

04 Samsung Electronics.
Manufacturing Process Tech.
(Smart Factory)

Kakao Talk

권태덕

sharkskin

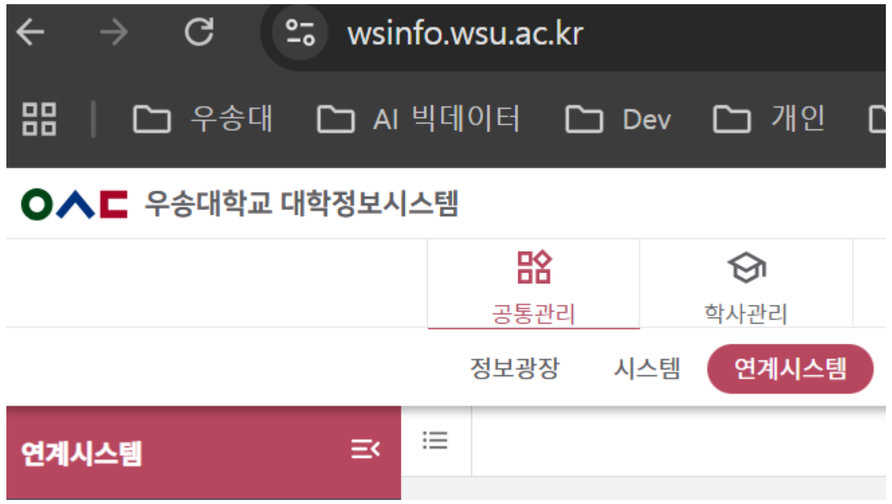
Students

01 Check Attendance (Phone)

02 Check your email (Excel)

03 Create email (WSU or gmail)

https://wsinfo.wsu.ac.kr/



Things to do today

01 Contents of C course to learn during the semester

02 About codyssey

03 Course evaluation

04 Development environment & setup

Contents of C course to learn during the semester

Week	Contents
1	Introduction of C
2	Data type, Operator
3	Statement (Condition, Loop)
4	Standard Input/Output
5~6	Arrays
7~8	Structures
9	Pointers
10	Function Pointers, Pointer Operations
11	File Input/Output
12	Dynamic Memory Allocation
13	Preprocessing, External Variables, Split Compilation
14	Linked List
15	Final exam

About codyssey

01 What is codyssey

02 Class with codyssey (Requirement, discussion, coding)

03 Homework with Codyssey

04 Peer evaluation & review

https://www.innovationacademy.kr/en/innovation_academy/business_info/codyssey.html

Codyssey Introduction

What is the Codyssey ?

An Innovative SW Education Platform with a "3-No“ Approach

Codyssey is an innovative software education platform designed to address domestic educational needs through a “3-No” approach: No Lecture, No Textbook, No Tuition. By adopting Problem-Based Learning (PBL) and industry-focused projects, it fosters self-directed and collaborative learning to develop field-ready talents for local communities and industries.

Codyssey Overview		
	Educational Features	Problem-Based Learning (PBL) Without Traditional Lectures; Peer Learning and Peer Assessment
	Educational Level	Foundations of Computer Science (Industry-Demand Based Undergraduate Level); Projects (Practical Level)
	Program Duration	Modularized by Technology: Medium- to long-term courses, ranging from 6 to 18 months
	Learning Method	Offline (with Online Support)
	Learning Level	Customized Problem Recommendations Based on Competency

Course evaluation

Important!
MUST finish homework before the class!!

Course evaluation	Distribution of points	Note
Attendance	20 points	-1 point per absence
Codyssey	40 points	20 essential problems: 2 point per a problem
	Extra points	60 optional problems: 0.5 point per a problem
	20 points	Contribution (Peer evaluation & review)
Final exam	20 points	Open book
Total	**100**	**Complete Codyssey 80 problems: A+**

* Grades are determined based on relative evaluation.

Course structure & method

- Course duration: 15 weeks
- (Codyssey) Problems: 10 sub-courses with 80 problems
  - Essential: 20 problems, Optional: 60 problems
- Course operation:
  - Introductory lectures: 1 ~ 4 weeks
  - PBL classes: 10~13 weeks
  - Examination: 1 week (Open book, Don't memorize, Do understand)
- PBL class operation:
  - Lecture with 1~2 problems solving of the week
  - In-class exercise with 1~2 problems (Team)
  - Assignments with 16 problems, followed by group sharing in the next weeks

Password : S2-302

Setup Mac book

01 Disable wifi

02 Download for mac version of vsc from website

https://code.visualstudio.com/

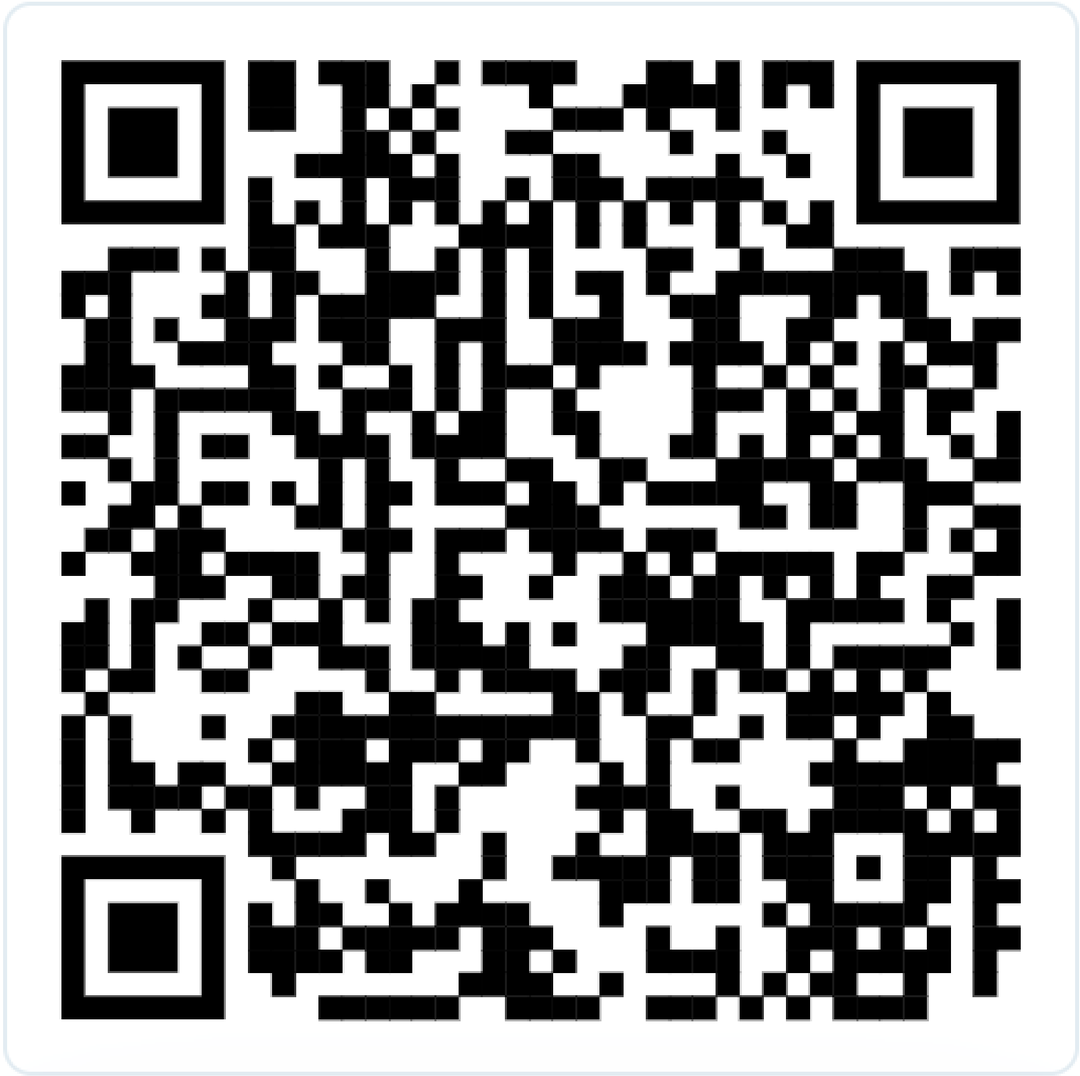
03 Install it and move to Applications folder

04 Create main.c → Install extention

05 Open terminal, Type gcc → Install gcc

Github for C class

https://github.com/prof-kweon/C-Language-Course



Break time
(Start at 10:30)

Development Environment & setup

01 Codyssey

02 Github & Codyssey

Codyssey with github

03 IDE (VS code) & **MinGW**

https://code.visualstudio.com/

04 Make the first my program

Development Environment & setup – Codyssey

01 Check login

https://usr.codyssey.kr/main/

02 Explore menu tree & read a project story

03 Team discussion & Peer evaluation/review

Next week

Development Environment & setup – Github & Git

01 Make an account

02 Create a repository [Codyssey with github]

03 Create two repositories as public
1. for the class practice
2. for codyssey homework & peer evaluation

04 Upload & Download files with github

https://github.com/prof-kweon/C-Language-Course/tree/main

Development Environment & setup – IDE (VSCode) & MinGW

01 Install VSCode

https://code.visualstudio.com/

02 Connect VSCode & Codyssey

Codyssey with github

03 Install MinGW **(Only for personal Notebook, windows)**

https://code.visualstudio.com/

Codyssey with github

04 Verify installation

Development Environment & setup – Make the first my program

01 @ windows cmd console

02 @ VSCode (with your notebook) – recommend

03 @ Codespaces (in the class) – recommend

Write the first my program

main.c

```
#include <stdio.h>

int main() {
    printf("Hello world!₩n");
    return 0;
}
```

Build the first my program

Use the -c flag with gcc to compile the source code into an object file without linking.

gcc –c main.c **=> main.o**

gcc main.o -o my_program **=> my_program**

If you don’t need an object file and just want an executable, omit the –c flag and use –o flag.

gcc main.c –o my_gragram **=> my_program**

Homework

1. Explore the entire codyssey menu tree
2. Read Step 1, Course 1, Problem 1~2
3. Study how to use github & VSC (Any IDE)
4. Send email to me (See next page)

Homework

Email including the following:

- name (nickname, short name)
- class section (C 001…)
- nationality
- Your email (if changed), Github address
- Programming skill (1 ~ 4)

1. I don't know anything at all
2. I have no programming experience
3. I have some programming experience
4. I can write my own programs

See you next week!
DO NOT miss the classes