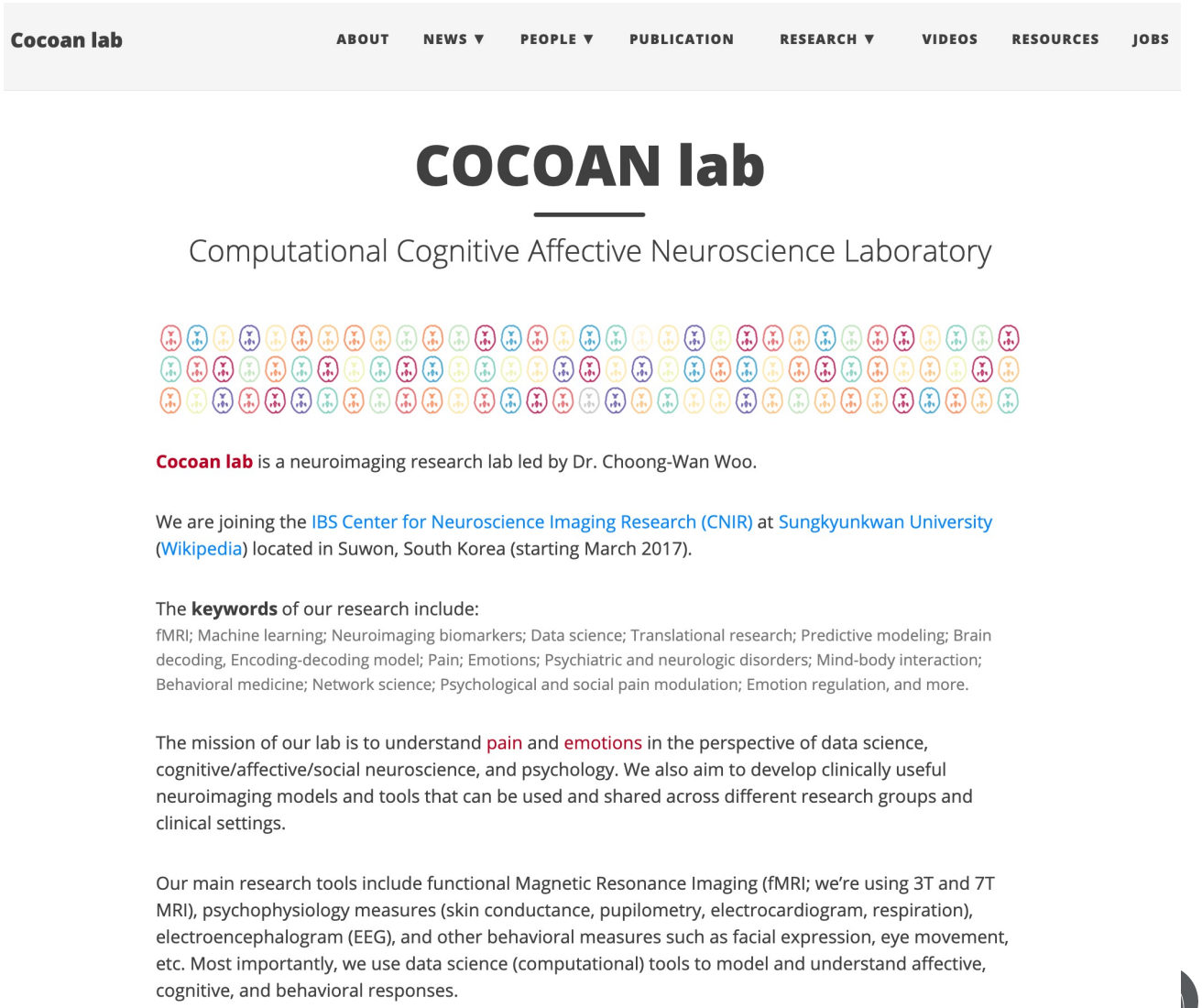
Lecture 01
Course overview

CHOONG-WAN WOO I COCOAN lab I http://cocoanlab.github.io

Introduction

Lab webpage

https://cocoanlab.github.io/



Survey

Please complete this before next week class (3/13):

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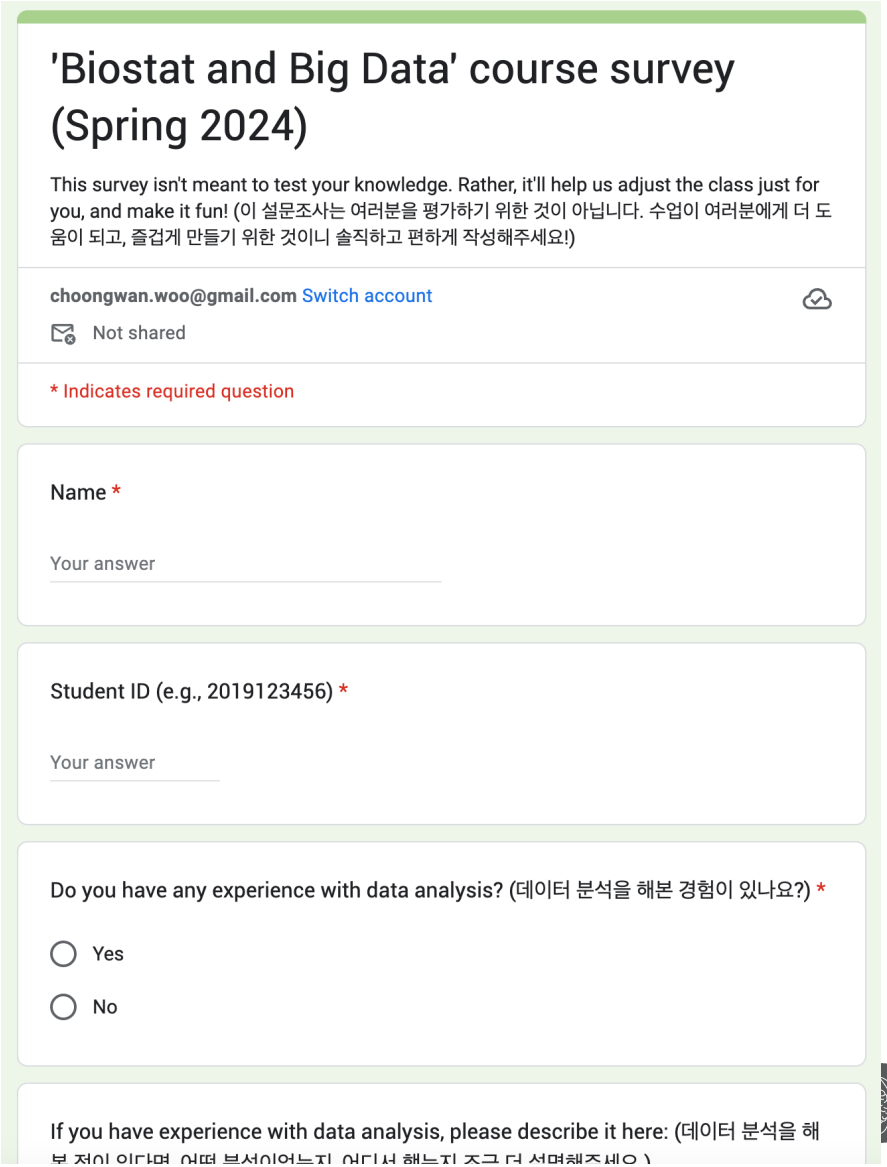


'Biostat and Big Data' course survey (Spring 2024)

This survey isn't meant to test your knowledge. Rather, it'll help us adjust the class just for you, and make it fun! (이 설문조사는 여러분을 평가하기 위한 것이 아닙니다. 수업이 여러분에게 더 도움이 되고, 즐겁게 만들기 위한 것이니 솔직하고 편하게 작성해주세요!)

choongwan.woo@gmail.com Switch account

Not shared

* Indicates required question

Name *

Your answer

Student ID (e.g., 2019123456) *

Your answer

Do you have any experience with data analysis? (데이터 분석을 해본 경험이 있나요?) *

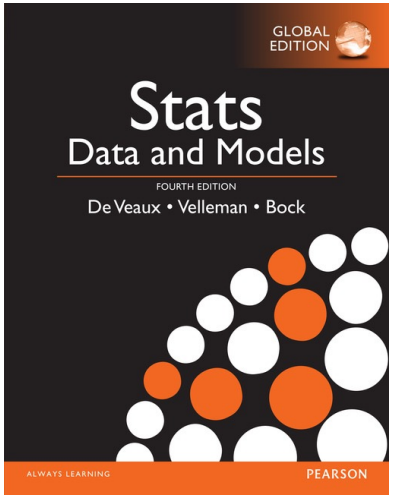
Yes

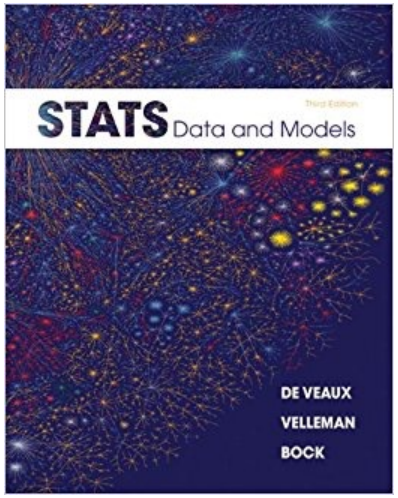
No

If you have experience with data analysis, please describe it here: (데이터 분석을 해

Course overview

- Biostats and Big data (previously GBME's Probability and Statistics)
- Class code: GBE 3064
- Intro Stats
- Textbook: "Stats: Data and Models" by De Veaux, Velleman, and Bock, Fourth Edition
  - Third edition also works!





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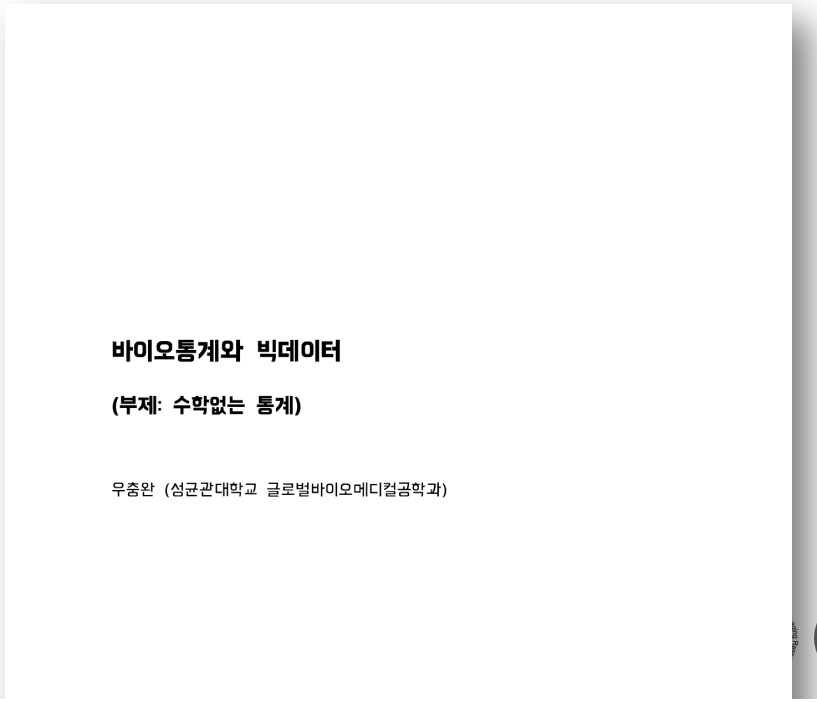
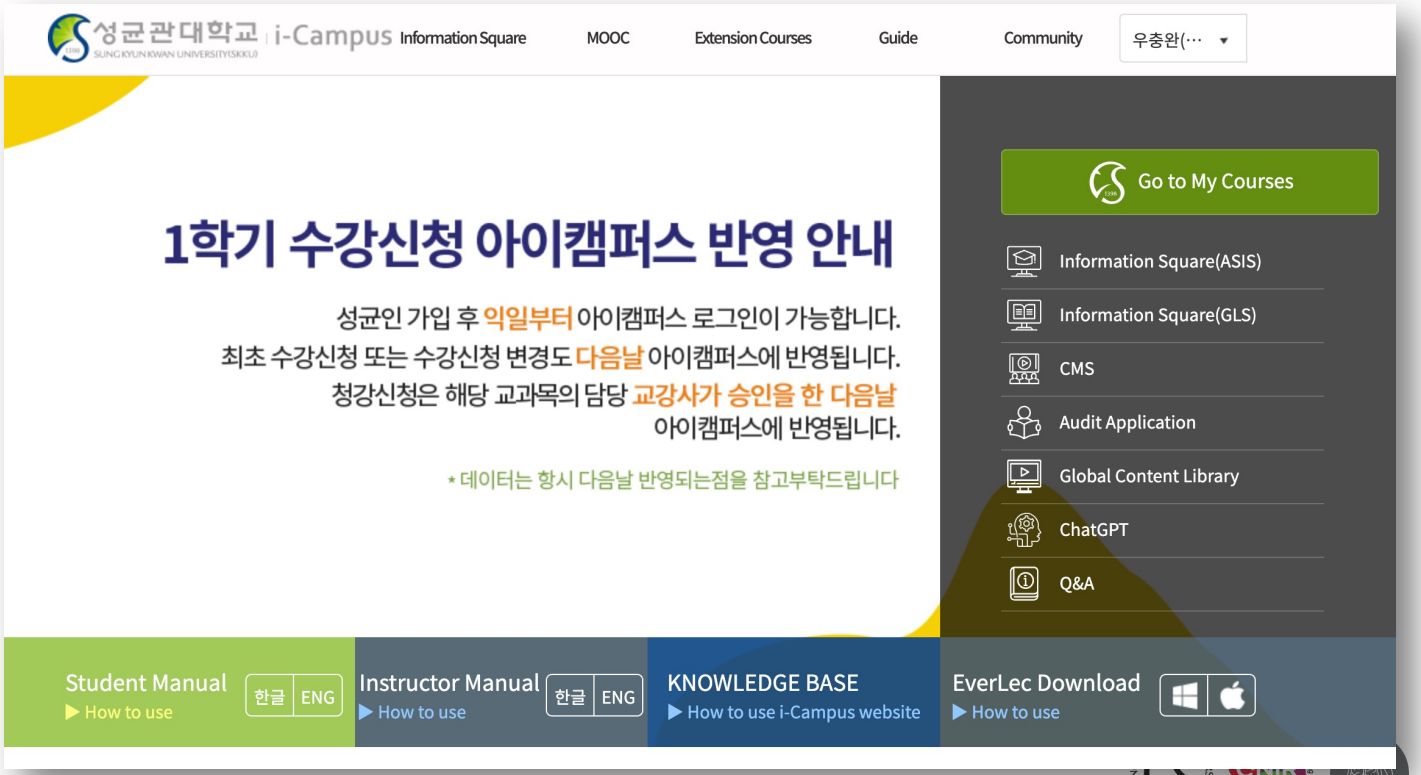
  - Third edition also works!
  - And I recently wrote a textbook in Korean
    - I am sharing this for free!
    - Download: https://tinyurl.com/4kdx8thf
    - No cover, no design yet..

      (if you want to help with the book design, let me know. ☺)



For communications!

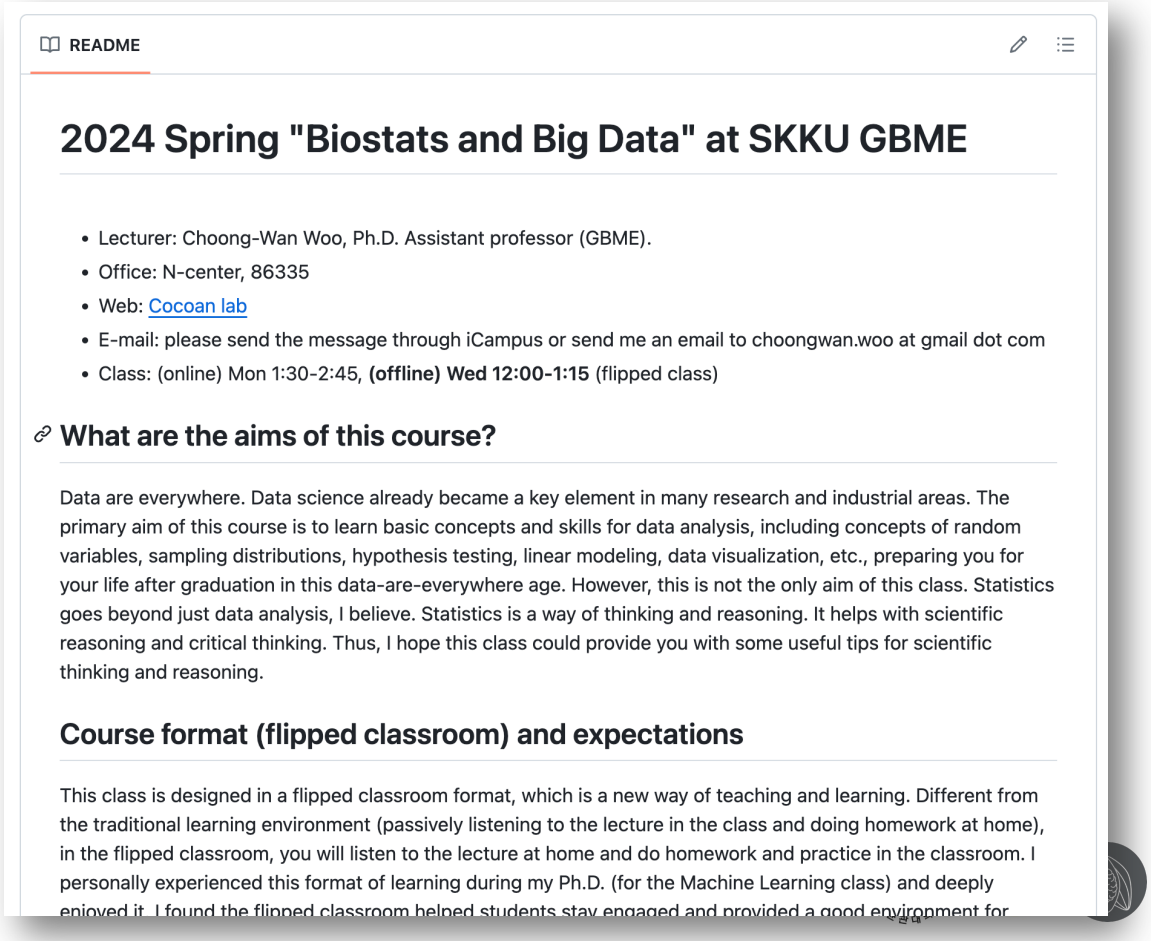
- iCampus
- and email (choongwan.woo@gmail.com)



Syllabus

Our class website: https://github.com/wanirepo/Stats_2024Spring

- README.md is the syllabus.
- Let's visit the website and read the syllabus together.



README

2024 Spring "Biostats and Big Data" at SKKU GBME

- Lecturer: Choong-Wan Woo, Ph.D. Assistant professor (GBME).
- Office: N-center, 86335
- Web: Cocoan lab
- E-mail: please send the message through iCampus or send me an email to choongwan.woo at gmail dot com
- Class: (online) Mon 1:30-2:45, **(offline) Wed 12:00-1:15** (flipped class)

What are the aims of this course?

Data are everywhere. Data science already became a key element in many research and industrial areas. The primary aim of this course is to learn basic concepts and skills for data analysis, including concepts of random variables, sampling distributions, hypothesis testing, linear modeling, data visualization, etc., preparing you for your life after graduation in this data-are-everywhere age. However, this is not the only aim of this class. Statistics goes beyond just data analysis, I believe. Statistics is a way of thinking and reasoning. It helps with scientific reasoning and critical thinking. Thus, I hope this class could provide you with some useful tips for scientific thinking and reasoning.

Course format (flipped classroom) and expectations

This class is designed in a flipped classroom format, which is a new way of teaching and learning. Different from the traditional learning environment (passively listening to the lecture in the class and doing homework at home), in the flipped classroom, you will listen to the lecture at home and do homework and practice in the classroom. I personally experienced this format of learning during my Ph.D. (for the Machine Learning class) and deeply enjoyed it. I found the flipped classroom helped students stay engaged and provided a good environment for

Watching lecture videos

I will upload lectures like this every week.

There will be **two types** of lectures:

1) Short lectures in English
2) Long lectures in Korean
   explaining the short English lectures

For those who do not use Korean, you can watch 1). It covers all the contents.

But if you know Korean, please watch 2), which has more in-depth explanations.

Smart attendance

출석: 강의시간 5분 전~ 시작 후 10분
지각: 강의시간 +10분 ~ +40분
결석: +40분 이후 또는 미참석

Team activity

Each class, you will form new teams depending on where you sit

4-5 members per team

To-do before the next class

Survey before the next class (3/6): https://forms.gle/HJPyX8y4RryYWZai8

- Watch the first two week's lecture
- Next class: 3/13 Monday 1:30 PM here at 86120