

# (Syllabus)

| [1] (Basic Information)         |                            |  |          |  |                |
|---------------------------------|----------------------------|--|----------|--|----------------|
| <u>(Course Information)</u>     |                            |  |          |  |                |
| /                               | 2023 / 2                   |  | (Campus) |  | (Seoul Campus) |
| (Year/Semester)                 |                            |  |          |  |                |
| (Course No.)                    | 57544                      | (Class No.)                              | 01       | (Credit)                                   | 3              |
| (Course Title)                  | (DEEP<br>GENERATIVE MODEL) | /  |          | 310 (310 ) 731 <                           | >              |
| (Course Classification)         | (elective major course)    | (Time/Room)                              |          | 7,8,9(310 (310 ) 731 <                     | > THU7,8,9)    |
| (Course Type)                   | (Theoretical course)       | (Lecture Type)                           |          | (Lone-teaching course)                     |                |
| (Accreditation)                 |                            | (Medium of Instruction)                  |          |  |                |
| (College)                       | (Graduate School)          | (Accreditation of Engineering Education) |          |  |                |
| e-class<br>(Usage of e-class)   | No                         | (Department)                             |          | AI (Department of Artificial Intelligence) |                |
| <u>(Instructor Information)</u> |                            |  |          |  |                |
| (Name)                          | (Yoon Sik Cho)             | (Department)                             |          | AI (Department of Artificial Intelligence) |                |
| (Office Phone No.)              | 02-820-5911                | (Contact No.)                            |          | 02-820-5911                                |                |
| E-mail<br>(E-mail)              | yoonsik@cau.ac.kr          | (Department Phone No.)                   |          | 02-820-6357                                |                |
| 가<br>(Office Hour)              | By appointment             | (Office Location)                        |          |  |                |
| (Course Web-site)               |                            |  |          |  |                |

|  |       |                                  |
|--|-------|----------------------------------|
| [2] / (Learning Objectives/Outcomes)   |       |                                  |
| <u>(Course Description)</u>  |       |                                  |
| This course introduces basic knowledge on generative models such as GAN, VAE, and Diffusion models.  |       |                                  |
| <u>(Prerequisites and Co-requisites)</u>   |       |                                  |
|  |       |                                  |
| <u>(Learning Objectives)</u>   |       |                                  |
| The objective of this course is learn generative models in theory and in practice.   |       |                                  |
| <u>(Learning Outcomes)</u>   |       |                                  |
| <div>- learn generative models through original papers</div> <div>- run generative models</div> <div>- implement generative models in your own field</div> |       |                                  |
| [3] (Course Methods)   |       |                                  |
| <u>(Teaching and Learning Methods)</u>   |       |                                  |
| (Teaching and Learning Methods)  | 가     | (Additional Description)         |
| / - (Individual)   |       |                                  |
| <u>(Assignments)</u>   |       |                                  |
| (Assignments)  | (No.) | ( , , )(Assignments Description) |
| (Individual)   | 2     |                                  |
| <u>(Textbooks, Reading, and other Materials)</u>   |       |                                  |

|                            |                          |  |
|----------------------------|--------------------------|--|
| [4] 가 (Student Assessment) |                          |  |
| 가 (Assessment Item)        | 가 (%) (Assessment Ratio) | 가 (Additional Description)               |
| (Attendance)               | 10                       |  |
| / (Participation/Attitude) | 10                       |  |
| (Assignment)               | 80                       | Three Term Projects, each of them is 40% |
| [5] (Course Schedule)      |                          |  |

| (Week)   | (Instructor) | (Topic & Content)          | (Student Assignment) | 가<br>(Additional Description & Instructor Assignment) |
|--|--------------|----------------------------|----------------------|---|
| 1  | Yoon-Sik Cho | Introduction               |                      |   |
| 2  | Yoon-Sik Cho | seminar                    |                      |   |
| 3  | Yoon-Sik Cho | seminar                    |                      |   |
| 4  | Yoon-Sik Cho | seminar                    |                      |   |
| 5  | Yoon-Sik Cho | seminar                    |                      |   |
| 6  | Yoon-Sik Cho | seminar                    |                      |   |
| 7  | Yoon-Sik Cho | seminar                    |                      |   |
| 8  | Yoon-Sik Cho | Mid-term Project           |                      |   |
| 9  | Yoon-Sik Cho | seminar                    |                      |   |
| 10   | Yoon-Sik Cho | seminar                    |                      |   |
| 11   | Yoon-Sik Cho | seminar                    |                      |   |
| 12   | Yoon-Sik Cho | seminar                    |                      |   |
| 13   | Yoon-Sik Cho | seminar                    |                      |   |
| 14   | Yoon-Sik Cho | seminar                    |                      |   |
| 15   | Yoon-Sik Cho | Final Project              |                      |   |
| 16   | Yoon-Sik Cho | Final Project Presentation |                      |   |
| [6] (Guide to Learning)  |              |                            |                      |   |
| Your attendance is checked every day.<br>Zero-tolerance policy on cheating   |              |                            |                      |   |
| (Previous Exam Samples)  |              |                            |                      |   |
|  |              |                            |                      |   |
| < 가 >(<Download Additional Sample>)  |              |                            |                      |   |
| 가 .  |              |                            |                      |   |
| 71 【 】 6 47 【 】  |              |                            |                      |   |
| ( In pursuant to the Article 71 ‘Discipline ’of the Chung-Ang University Regulations, and Article 47 ‘Punishment for Cheating during Examination ’under Chapter 6 of the Academic Affairs Management Rules, any student caught engaging in academic misconduct during an exam will be subject to disciplinary action.) |              |                            |                      |   |

1. : , , , 가
2. : , 가
3. / : 가 , 가
4. : 02-820-6577~9( ), 031-670-4816( )  
( cauable)

In this class, students with disabilities are eligible for reasonable accommodations depending on the type and severity of disability. If you wish to receive accommodations listed below, please contact the Support Center for Students with Disabilities.

1. Visual Impairment: Braille, large print, electronic class materials, volunteer note-taker, adjustments in assessment practices, etc.
  2. Hearing Impairment: Volunteer note-taker, stenographer, adjustments in assessment practices, etc.
  3. Physical Disabilities/Brain Lesions: Classrooms with wheelchair access, volunteer note-taker, adjustments in assessment practices, etc.
  4. Accommodations for students with other psychiatric disabilities or health impairments can be arranged through the Support Center for Students with Disabilities after consultation.  
Inquiry: 02-820-6577~9 (Seoul Campus), 031-670-4816 (Anseong Campus)
- KakaoTalk Plus Friend ID: @cauable