

Syllabus

Search

CSI4116-01 (1ST SEMESTER, 2021)



Created Date	2021-02-02 11:53:52	Last-Modified	2021-02-02 11:54:32
Course Title	Online Class-COMPUTER VISION	Credit	3
Location	Realtime online lecture	Time	Tue3,4,Thu6

Instructor	Kim Seon Joo	Department	공과대학 컴퓨터과학과
Office	D723	Telephone	02-2123-5709
e-mail & Office Hour	seonjookim@yonsei.ac.kr & by appointments		

Core Competencies	문제해결능력	논리적사고	프로그래밍능력
	50	30	20

Target Students	Undergraduate students majoring in Computer Science (senior).
-----------------	---

Course Description & Goals	This course provides a general introduction to computer vision. Major topics include image processing, detection and recognition, geometry, video analysis, and deep learning. Students will learn basic concepts of computer vision as well as hands on experience to solve real-life vision problems.
----------------------------	---

Prerequisite	Calculus, Linear algebra, Probability.
--------------	--

Course Requirements	3 hours of lectures.
---------------------	----------------------

Grading Policy (Absolute)	Exams 60% Projects 40%
---------------------------	---------------------------

Texts & References	
--------------------	--

Instructor's Profile	Associate Professor in the Department of Computer Science. http://sites.google.com/site/seonjookim/
----------------------	---

TA's Name & Contact Information	TBA.
---------------------------------	------

Syllabus in English	This course provides a general introduction to computer vision. Major topics include image processing, detection and recognition, geometry, video analysis, and deep learning. Students will learn basic concepts of computer vision as well as hands on experience to solve real-life vision problems.
---------------------	---

Week	Period	Weekly Topic & Contents	Course Material Range & Assignments	Reference
1	2021-03-02 2021-03-08	Introduction to computer vision		(3.2.) Spring semester classes begin (3.5. - 3.9.) Course add and drop period
2	2021-03-09 2021-03-15	Cameras and optics Light and color		(3.5. - 3.9.) Course add and drop period
3	2021-03-16 2021-03-22	Image Processing & Filtering.		
4	2021-03-23 2021-03-29	Thinking in frequency Image pyramids and applications		
5	2021-03-30	Edge detection		

	2021-04-05			
6	2021-04-06 2021-04-12	Interest points and corners		(4.7.) First third of the semester ends
7	2021-04-13 2021-04-19	Midterm exam		(4.19. – 4.23.) Midterm Examinations
8	2021-04-20 2021-04-26	Image Recognition		(4.19. – 4.23.) Midterm Examinations (4.26. – 4.28.) Course withdrawal period
9	2021-04-27 2021-05-03	Machine Learning / Deep Learning		(4.26. – 4.28.) Course withdrawal period
10	2021-05-04 2021-05-10	Machine Learning / Deep Learning		(5.5.) Children`s Day
11	2021-05-11 2021-05-17	Machine Learning / Deep Learning		(5.17.) Second third of the semester ends
12	2021-05-18 2021-05-24	Geometry in Computer Vision	Project 3 announcement	(5.19.) Buddha`s Birthday
13	2021-05-25 2021-05-31	Video Analysis.		
14	2021-06-01 2021-06-07	Wrap-up		(6.6.) Memorial Day (6.7. – 6.18.) Self-study and Final Examinations
15	2021-06-08 2021-06-14			(6.7. – 6.18.) Self-study and Final Examinations
16	2021-06-15 2021-06-18	Final Exam		(6.7. – 6.18.) Self-study and Final Examinations

* Changes in Management of Academic Semester

During the midterm examinations (2021.4.19. – 4.23.) and final examinations (2021.6.7. – 6.8.) period, classes or self-study should be continued unless there is an exam scheduled during the week.

* According to the University regulation section 57-2, students with disabilities can request special support related to attendance, lectures, assignments, or exams by contacting the course professor at the beginning of semester. Upon request, students can receive such support from the course professor or from the Center for Students with Disabilities(OSD). The following are examples of types of support available in the lectures, assignments, and exams: (However, actual support may vary depending on the course.)

[Lecture]

- Visual Impairment: alternative, braille, enlarged reading materials, note-taker
- Physical Impairment: alternative reading materials, access to classroom, note-taker, assigned seat
- Hearing Impairment: note-taker/stenographer, recording lecture
- Intellectual Disability/Autism: note-taker, study mentor

[Assignments and Exam]

- Visual, Physical, Hearing Impairment: extra days for submission, alternative type of assignment, extended exam time, alternative type of exam, arranging separate exam room, and proctors, note-taker
- Intellectual Disability/Autism: personalized assignments, alternative type of evaluation

