

# CAD/CAM

446.326A, Autumn, 2018

## Course Instructor

Prof. Kunwoo Lee      Office. 301-1408  
Phone. 880-7141  
Mail. kunwoo@snu.ac.kr

## Teaching Assistant

Changmin Lee      Office. 301-209  
Phone. 880-7447  
Mail. dochi@snu.ac.kr

## Textbook

"Principles of CAD/CAM/CAE Systems", Kunwoo Lee, Addison Wesley, 1999

## Classroom & Class Hours

Bldg. 301, Rm. 301 on Lecture, Rm. 109 on Practice  
11:00 – 12:15, 12:50 every Tuesdays and Thursdays

## Grading

Attendance. 10%  
Homework. 15%  
Presentation of lecture material 20%  
Quiz. 20%  
Term Project. 30%  
Course participation 5%

## Course Webpage

SNU eTL (<http://etl.snu.ac.kr>) → CAD/CAM

Date	Topics	Related Material	Room
09/04	Orientation, Introduction, Concepts of digital manufacturing	Textbook, 2018_Introduction toDigitalManufacturing.ppt <a href="https://youtu.be/Mjzg5nku5Lg">https://youtu.be/Mjzg5nku5Lg</a> <a href="https://youtu.be/iGtM8VGLn5M">https://youtu.be/iGtM8VGLn5M</a>	301
09/06	Presentation by students and discussions 1	<a href="https://www.coursera.org/specializations/digital-manufacturing-design-technology">https://www.coursera.org/specializations/digital-manufacturing-design-technology</a> 강좌 1	301
09/11	Introduction to CAD software	Textbook, 2018_Introduction to CADsoftware.ppt	301
09/13	No Class		
09/18	Introduction to CAD software	<a href="https://youtu.be/Nh6TxTUKzhA">https://youtu.be/Nh6TxTUKzhA</a>	301
09/19 6:30 pm – 7:45 pm	Introduction to CAD software		301
09/20	Presentation by students and discussions 2, 3	<a href="https://ocw.mit.edu/courses/aeronautics-and-astronautics/16-810-engineering-design-and-rapid-prototyping-january-iap-2005/lecture-notes/">https://ocw.mit.edu/courses/aeronautics-and-astronautics/16-810-engineering-design-and-rapid-prototyping-january-iap-2005/lecture-notes/</a> L4: CAD Modeling, SolidWorks® Tutorial (de Weck) ( <a href="#">PDF</a> )	301
09/25	No Class (추석)		
09/27	Term project subject discussions	<a href="https://youtu.be/0gjyVqwr3E">https://youtu.be/0gjyVqwr3E</a> <a href="https://youtu.be/ErDTq6q8ug0">https://youtu.be/ErDTq6q8ug0</a>	301
09/27 6:30 pm – 8:20 pm	Practice on Solid Modeling System	<a href="https://youtu.be/CJvqI5RVVvA">https://youtu.be/CJvqI5RVVvA</a> <a href="https://youtu.be/A5bc9c3S12g">https://youtu.be/A5bc9c3S12g</a>	109

10/02	Practice on Solid Modeling System	Homework assigned <a href="https://youtu.be/ZOdSjsFfXqc">https://youtu.be/ZOdSjsFfXqc</a> <a href="https://youtu.be/609bz7Y7J6s">https://youtu.be/609bz7Y7J6s</a>	109
10/04	Introduction to CAE software	Text book, 2018_Introduction to FEM.ppt	301
10/09	No Class (한글날)		
10/11	Presentation by students and discussions 4	L5: Computer Aided Engineering (CAE)-FEM (de Weck) (PDF)	301
10/11 6:30 pm - 8:20 pm	Practice on CAE software		109
10/16	Practice on CAE software	Homework assigned	109
10/18	Introduction to Optimization	Textbook, 2018_Optimization.ppt	301
10/23	Introduction to Optimization		301
10/25	Presentation by students and discussions 5	L6: Design Optimization (de Weck) (PDF)	301
10/30	Practice on optimization software	Homework assigned	109
10/01	Introduction to CAM software	Textbook, 2018_CADCAM_Integration_N C_Programming.ppt	301
11/06	Presentation by students and discussions 6, 7	L8: Introduction to CAM (de Weck, Col. Young) (PDF) + TEXT BOOK	301
11/08	Practice on CAM software		109
11/13	Practice on CAM software	Homework assigned	109
11/15	Introduction to RP(Rapid Prototyping)	Textbook, Introduction to Rapid Prototyping.ppt <a href="https://youtu.be/NOzZCWDp01s">https://youtu.be/NOzZCWDp01s</a>	301

11/20	Presentation by students and discussions 8, 9	Additive Manufacturing Technologies : Rapid Prototyping to Direct Digital Manufacturing / by Ian Gibson, David W. Rosen, Brent Stucker. <a href="http://snu-primo.hosted.exlibrisgroup.com/primo_library/libweb/action/display.do;jsessionid=639AA4783DA85C13B316CCC2D0CE4322?tabs=viewOnlineTab&amp;ct=display&amp;fn=search&amp;doc=82SNU_INST51583754490002591&amp;indx=2&amp;reclids=82SNU_INST51583754490002591&amp;recldxs=1&amp;elementId=1&amp;renderMode=poppedOut&amp;displayMode=full&amp;frbrVersion=4&amp;frbg=&amp;&amp;dscnt=0&amp;scps=scps=scope%3A%2882SNU_ROSETTA%29%2Cscope%3A%2882SNU_COURSE%29%2Cscope%3A%2882SNU_INST%29%2Cscope%3A%2882SNU_SSPACE2%29%2Cprimo_central_multiple_fe&amp;tb=t&amp;vid=82SNU&amp;mode=Basic&amp;srt=rank&amp;tab=all&amp;prefLang=ko_KR&amp;dum=true&amp;vl(freeText0)=Additive%20Manufacturing%20Technologies&amp;dstamp=1535523608781">http://snu-primo.hosted.exlibrisgroup.com/primo_library/libweb/action/display.do;jsessionid=639AA4783DA85C13B316CCC2D0CE4322?tabs=viewOnlineTab&amp;ct=display&amp;fn=search&amp;doc=82SNU_INST51583754490002591&amp;indx=2&amp;reclids=82SNU_INST51583754490002591&amp;recldxs=1&amp;elementId=1&amp;renderMode=poppedOut&amp;displayMode=full&amp;frbrVersion=4&amp;frbg=&amp;&amp;dscnt=0&amp;scps=scps=scope%3A%2882SNU_ROSETTA%29%2Cscope%3A%2882SNU_COURSE%29%2Cscope%3A%2882SNU_INST%29%2Cscope%3A%2882SNU_SSPACE2%29%2Cprimo_central_multiple_fe&amp;tb=t&amp;vid=82SNU&amp;mode=Basic&amp;srt=rank&amp;tab=all&amp;prefLang=ko_KR&amp;dum=true&amp;vl(freeText0)=Additive%20Manufacturing%20Technologies&amp;dstamp=1535523608781</a> two chapters TBD	301
11/22	Practice on RP		109
11/27	Practice on RP	Homework assigned	109
11/29	Introduction to reverse engineering	Textbook, 2018_Introduction_to_Reverse_Engineering.ppt	301
12/04	Presentation by students and discussions 10	<a href="https://www.slideshare.net/WonsupLee1/3d-scan-to-product-design-methods-techniques-and-cases">https://www.slideshare.net/WonsupLee1/3d-scan-to-product-design-methods-techniques-and-cases</a>	301
12/06	Practice on reverse engineering	Homework assigned	109
12/11	Quiz		301
12/13	Final Presentation of Term Project		301