

Visuotechnical Communication for Engineers

Course Name	Course type (credit/hours)	Elective course(3/3)	Course code	C098
	Target students Division/major/grade	Electrical and Computer Engineering/Senior	Opening semester	2018 2ND SEMESTER
	Class time and classroom	Tue E(WH228)Fri E(WH228)	English Grade	A(100%English)
Reference to this course	Prerequisite courses			
	Related basic courses			
	Recommended concurrent courses	Capstone Design 2 or Undergraduate Research in Electronics 2		
	Related advanced courses			

Instructor	Name (title/division)		Sangsin Na(Professor, Electrical and Computer Engineering)		
	Office Room Number	Room 406. WOnchen Hall	Office phone Number	2366	e-mail
	Office hours	TBA		Homepage address	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

The course targets undergraduate students who wish to write a technical report or a paper for Capstone Design 2 or Undergraduate Research 2 and graduate students who wish to write a thesis, conference paper, or journal paper. For this reason prospective students will be interviewed in the first week of the class for proper requirements.

This course covers technical writing with an emphasis on visual elements such as lists, tables and figures and is suitable for those who have materials to write for technical reports, conference papers, journal papers and master/doctoral theses.

The course is a blended-learning course, where students study with on-line subject materials and come to the class for practice workshop in which writing/designing is performed.

The following topics will be covered:

- Technical writing in Korean/English: technical report and/or conference/journal paper
- Visual elements: design of figures, tables and graphs.
- Oral presentation: presentation of poster or paper in Korean/English from a capstone design project, undergraduate research, or graduate research work.

2. Course Objectives

1. 기술전문 내용의 보고서를 영문으로 작성할 수 있다.
2. 자료의 특성을 파악하여 적절한 그림, 도표, 그래프화할 수 있다.
3. 설계과제 또는 융합전자연구 결과를 국문/영문 포스터 논문 또는 학술 논문 형식으로 작성할 수 있다.

1. Can compose technical report and/or paper in English.
2. Can turn data into a suitable figure, table or graph.
3. Can produce a poster or a paper in Korean/English from a capstone design project, undergraduate research, or graduate research work.

3. Class types and activities

On-off line blended/flipped learning

- On-line video learning
- Off-line inclass workshop activities

Individual/Team-based inclass activities involving quizz taking and writing

4. Teaching Method

- | | |
|--|---|
| <input checked="" type="checkbox"/> lecture | <input checked="" type="checkbox"/> discussion and debate |
| <input checked="" type="checkbox"/> team project(presentation and case studies) | <input type="checkbox"/> experiments(role-playing,etc) |
| <input type="checkbox"/> designing and production | <input type="checkbox"/> on-site learning(on-site training) |
| <input checked="" type="checkbox"/> others (Students will view on-line video clips for the course materials and attend the class for the off-line | |

5. Support Systems in Use

- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> AjouBb | <input type="checkbox"/> automatic recording system | <input type="checkbox"/> web-based assignment |
| <input type="checkbox"/> cyber lecture | <input checked="" type="checkbox"/> online content | |
| <input type="checkbox"/> class behavior analyzing system | <input checked="" type="checkbox"/> others (Students will view on-line video clips for the course | |

6. Teaching Tools

<input type="checkbox"/> PBL(Problem Based Learning)	<input type="checkbox"/> CBL(Case Based Learning)	<input checked="" type="checkbox"/> TBL(Team Based Learning)
<input type="checkbox"/> UR(Undergraduate Research)	<input checked="" type="checkbox"/> FL(Flipped Learning)	<input type="checkbox"/> DSAL(Data Science Active Learning)
<input type="checkbox"/> others		

7. Knowledge and ability required for taking this course

1. 워드프로세서 활용법
2. 파워포인트 활용법
3. 엑셀 또는 매트랩 등의 그래프용 소프트웨어
4. 과목 내의 설계과제/융합전자연구 2/전자종합설계 2 등에서의 보고서/연구논문, 포스터 또는 발표용 자료/주제 등이 수행 학습활동에 필수적임

1. Wordprocessor skill (Hwp, Word, etc)
2. Powerpoint skill (for presentation preparation/poster making)
3. Graphing software (Excel, MATLAB, etc)
4. Writing topics from a design project, undergraduate research, graduate research, capstone project will be helpful for your writing exercises.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Attendance
midterm exam			
final exam			
quiz			
presentation		30%	Presentation
discussion		10%	Discussion in a team
homework		50%	Individual assignment and/or inclass activities
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	시각중점기술소통 (e-book)	나상신		
Main	Other materials			

10. Class system and Class shedule

수업내용의 체계는 다음과 같음

- 기술전문 작문법(국문/영문 문건작성): 기술보고서, 논문 등의 구성, 각 구성요소의 학습 및 수행
- 정보 및 자료의 시각화: 문건 또는 자료로부터 유의미성을 파악하여 그림, 도표, 그래프화 학습 및 수행
- 발표: 구두 발표의 고려 요소, (파워포인트를 활용한) 자료의 작성 및 발표 수행
- 포스터 논문 작성: 융합전자연구 또는 설계 과제의 포스터용 논문화
- Technical/professional writing in Korean/English: design and writing of technical reports and paper articles
- Visualization of technical information and data: design and generation of illustrations, figures and graphs
- Presentation: design and practice of oral presentation, preparation for presentation and poster paper

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction	K/E	Sangsin Na	off-line lecture		
2	Titling	K/E	Sangsin Na	blended learning		
3	Abstract	K/E	Sangsin Na	blended learning		
4	Paragraphs 1	K/E	Sangsin Na	blended learning		
5	Paragraphs 2	K/E	Sangsin Na	blended learning		
6	Structure Aspect	K/E	Sangsin Na	blended learning		
7	References	K/E	Sangsin Na	blended learning		
8	Midterm week	K/E	Sangsin Na		quizzes/assignments/presentation	
9	Tables and Graphs 1	K/E	Sangsin Na	blended learning		
10	Tables and Graphs 2	K/E	Sangsin Na	blended learning		
11	Oral Presentation	K/E	Sangsin Na	blended learning		

< Class Schedule >

* language : K-korean, E-English

Week s	Topics	lang uag e	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
12	Special topics	K/E	Sangsin Na	blended learning		
13	Reserved week	K/E	Sangsin Na	blended learning		
14	Professoinal Resume Writing	K/E	Sangsin Na	off-line lecture		
15	Exhibition of Classworks	K/E	Sangsin Na	exhibition		
16	Final exam week	K/E	Sangsin Na		quizzes/assignments/pr esentation	

11. Other items of notification