

Visuotechnical Communication for Engineers

Course Name	Course section (credit/hours)	Elective course(3/3)			course code	C106
	course item				course component	
	Target students Division/major/grade				opening semester	2015 2ND SEMESTER
	Class time and classroom	Tue E(WH535)Fri E(WH535)			English Grade	B(50%English)
Reference to this course	Credit composition	Theory(3) + Design(0) + Practice(0)				
	Prerequisite courses					
	Related basic courses					
	Recommended concurrent courses	Capstone Design 2 or Undergraduate Research in Electronics 2				
	Related advanced course					
Instructor	Name (title/division)	Sangsin Na(Professor, Electrical Engineering)				
	Office Room Number	Rm 406 Woncheon Hall	Extension Number	2366	e-mail	sangna@ajou.ac.kr
	Office hour	TBA		Homepage address		
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Course Introduction

The course emphasizes and incorporates visual aspects to conventional tech-professional writing and presentations, is offered as an on-and-off-line blended learning experience for improved students' participation and in-depth coverage, and discusses the following topics:

- 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

2. Course Objectives & course outcome

1. 한 쪽 분량의 기술전문 내용의 보고서/논문을 국문 또는 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 one-page technical report and/or paper in Korean and/or 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

Blended learning with on-line video clips followed by off-line individual/team activities in classroom

4. Teaching Method

- | | |
|--|--|
| <input checked="" type="checkbox"/> lecture | <input checked="" type="checkbox"/> discussion and debate |
| <input type="checkbox"/> team project(presentation and case studies) | <input type="checkbox"/> experiments(role-playing,etc) |
| <input type="checkbox"/> designing and production | <input checked="" type="checkbox"/> on-site learning(on-site training) |
| <input checked="" type="checkbox"/> others (| |

5. Support Systems in Use

- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> e-class | <input type="checkbox"/> automatic recording system | <input type="checkbox"/> web-based assignment |
| <input type="checkbox"/> cyber lecture | <input checked="" type="checkbox"/> blended learning(combination of online and offline teaching) | |
| <input type="checkbox"/> class behavior analyzing system | <input checked="" type="checkbox"/> others (Students will view on-line video clips for the | |

6. Teaching Tools

- | | |
|--|---|
| <input type="checkbox"/> PBL(Problem Based Learning) | <input type="checkbox"/> CBL(Case Based Learning) |
| <input type="checkbox"/> TBL(Team Based Learning) | <input type="checkbox"/> UR(Undergraduate Research) |
| <input type="checkbox"/> others | |

7. Evaluation method of course outcome

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		20	Attendance
midterm exam			
final exam			
quiz	8	20	Quizzes

7. Evaluation method of course outcome

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
presentation		20	Presentation
discussion		20	Discussion in a team
homework		20	Individual assignment and/or inclass activities
etc			
study hours			

8. Textbook and Reference material

Main/Sub	Title	Writer	Publisher	Publication year
Main	문서학습자료(e-class), 온라인 학습자료(video clips from TLC)	담당교수		2015

9. Class system and Class shedule

<p>수업내용의 체계는 다음과 같음</p> <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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
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< Schedule >

* language : K-korean, E-English

Weeks	Title of lecture	language	time distribution(minutes)			Teaching Method	evaluation method
			theory	design	experiment practice		
1	Introduction	K/E				off-line lecture	
2	Titling	K/E				blended learning	
3	Abstract	K/E				blended learning	
4	Paragraphs 1	K/E				blended learning	
5	Paragraphs 2	K/E				blended learning	
6	Structure Aspect	K/E				blended learning	
7	References	K/E				blended learning	
8	Midterm Week	K/E					
9	Tables and Graphs 1	K/E				blended learning	
10	Tables and Graphs 2	K/E				blended learning	
11	Oral Presentation	K/E				blended learning	
12	Poster Making 1	K/E				blended learning	
13	Poster Making 2	K/E				inclass activities	
14	Professional Resume Writing	K/E				off-line lecture	
15	Exhibition of Classworks	K/E				exhibition/display	
16	Final Week	K/E					

10. Contribution index of the course for attaining ABEEK program outcomes

course outcome	contribution scale
수학, 기초과학, 공학의 지식과 정보기술을 공학문제 해결에 응용할 수 있는 능력	
데이터를 분석하고 주어진 사실이나 가설을 실험을 통하여 확인할 수 있는 능력	3
공학문제를 정의하고 공식화할 수 있는 능력	
공학문제를 해결하기 위해 최신 정보, 연구 결과, 적절한 도구를 활용할 수 있는 능력	3
현실적 제한조건을 고려하여 시스템, 요소, 공정 등을 설계할 수 있는 능력	
공학문제를 해결하는 프로젝트 팀의 구성원으로서 팀 성과에 기여할 수 있는 능력	3
다양한 환경에서 효과적으로 의사소통할 수 있는 능력	3

10. Contribution index of the course for attaining ABEEK program outcomes

course outcome	contribution scale
공학적 해결방안이 보건, 안전, 경제, 환경, 지속가능성 등에 미치는 영향을 이해할 수 있는 능력	
공학인으로서의 직업윤리와 사회적 책임을 이해할 수 있는 능력	
기술환경 변화에 따른 자기계발의 필요성을 인식하고 지속적이고 자기주도적으로 학습할 수 있는 능력	

11. Analysis of improved matters for the previous semester

해당 사항 없음 : 2015-2 현학기가 최초 개설학기임

13. Reference items

대학원생 수강을 권장함
The course is greatly recommended to graduate students.