

수업계획서

1. 과목정보

과 목 명 (Course Title)	디지털통신	과목코드 (Course Number)	EE403	학점 (Course Credits)	3
학부/전공 (Major)	정보통신융합전공/ 전기전자컴퓨터		년도/학기 (Year/Semester)	2022년도/1학기	
담당교수명 (Instructor(s))	서대원	강의시간/강의실 호수 (Class Time/Classroom)	월,수 10:30~11:50 / E3 112호		
연구실 호수 및 e-mail (Office/E-mail)	E3-311, dwseo@dgist.ac.kr		연락처 (Contact Number)	053-785-6340	

2. 강의계획

교과 개요 (Course Description)	This course is about fundamentals of digital communications. Topics include several digital modulation schemes, transmission performance through AWGN channels, the concepts of fading, equalization, optimal receivers, basics of information theory such as channel capacity and error control coding.
교과 목표 (Course Objectives)	The purpose of this course is to provide students with technical backgrounds on digital communication theories and systems.
교재 및 참고문헌 (Required Texts & References)	1. Principles of Communications, R. E. Ziemer and W. H. Trante, Wiley, 2014 2. Essentials of Communication Systems Engineering, J. G. Proakis and M. Salehi, Prentice Hall, 2005 3. Communication Systems, S. Haykin and M. Moher, Wiley, 2009
수행 임무 및 평가 체계 (Assignments & Grading)	Attendance (10%) Homework (30%) Midterm exam (30%) Final exam (30%)
세부 일정 (Class Schedule)	1. Week 1-3: Review of signal and systems / random processes 2. Week 4-5: Baseband digital transmission (Chap. 5) 3. Week 6-7: Digital communication I (Chap. 9) 4. Week 8: Mid-term exam 5. Week 9-11: Digital communication II (Chap. 9, 10) 6. Week 12-14: Optimum receivers and signal-space (Chap. 11) 7. Week 15-16: Information theory (Chap. 12) and final exam The schedule is tentative and subject to vary
학습 윤리 (Academic Integrity)	
교과 정책(방침) (Course Policies)	

이번 학기에 사용할 교수활동 (Main Instructional Activities)	❶ 강의(lecture) ❷발표(presentation) ❸거꾸로 수업(flipped-learning) ❹토론/토의(discussion) ❺팀티칭(team teaching) ❻동료교수(peer teaching) ❼프로젝트(project) ❽실험/실습(experiment) ❾기타(etc.)()
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3. 평가방법

평가방법	평가비율
Attendance & Participation	10
Homework	30
Midterm exam	30
Final exam	30

4. 주차별계획

1. Week 1-3: Review of signal and systems / random processes 2. Week 4-5: Baseband digital transmission (Chap. 5) 3. Week 6-7: Digital communication I (Chap. 9) 4. Week 8: Mid-term exam 5. Week 9-11: Digital communication II (Chap. 9, 10) 6. Week 12-14: Optimum receivers and signal-space (Chap. 11) 7. Week 15-16: Information theory (Chap. 12) and final exam

5. 교재

no	교재구분	교재명	저자명	출판사	발행년도
1	주교재	Principles of Communications (7th Ed.)	Ziemer & Trante	Wiley	2014
2	부교재	Essentials of Communication Systems Engineering	Proakis & Salehi	Prentice Hall	2005
3	부교재	Communication Systems (5th Ed.)	Haykin & Moher	Wiley	2009