

## 전북대학교 강의계획서 (2026년 1학기)

교과목명	프로그래밍반회로이론 1	분반	1	담당교수명	에런스노버거
		학점	3	연락처	
교과목 코드	0000127046	요일/시간	목 1-A, 목 1-B, 목 2-A, 목 2-B, 목 3-A, 목 3-B	E-mail	
교과목 구분	전공필수			연구실	
학과/학년	국제이공(엔지니어링사이언스) 2	강의실	전주:인문대학2호관 501	상당가능시간	

### 1. 강의 기본정보

수업목표	This course (part I) focuses on DC circuits. (Part II in another semester should focus on AC circuits.)  The course aims at learning the fundamentals of electric circuits. The course is intended for undergraduate students who are interested in understanding and designing electric circuits in electrical and electronics engineering. This course covers the fundamentals of electric circuits from basic concepts (e.g. charge, current, voltage, power, energy, etc.) and basic laws(Ohm's law, Nodes, Kirchhoff's laws, etc.) to Fourier Transform. Also, participants in this course will learn the commercial software which can design the electric circuits. The course is only available in English. *We may do hands-on labs using Arduino and/or Python coding.								
직전강의평가 및 CQI반영사항	The some of the program-based practical problems are provided in this course.								
<b>6대 핵심역량과의 관계</b>									
구분	소통역량	창의역량	인성역량	실무역량	도전역량	문화역량	합계	대표역량	
비율(%)	20	30	0	40	10	0	100		
교과목간의 연계성									
주교재	Fundamentals of Electric Circuits (7th Edition) – DC Circuits								
저자	Christopher K. Alexander / Matthew N.O. Sadi ku	출판사	Mc Graw Hill Education				출판년도	2020	
참고자료	Arduino online tutorials								
교재언어	영어	강의언어	영어	필요 기자재					
권장 선수과목	Physics, Python			권장 후수과목	DA				
수업방식 (복수가능√)	강의	발표/토론	PBL	플립러닝	LMS활용	실험실습	기타		
	√		√			√	√		
수업운영방향									
평가계획 (100%)	중간	기말	출석	과제물	안전교육	발표/토론	수업태도	기타	
	25%	25%	20%	20%	0%	0%	0%	10%	
평가참고사항									
평가방법	절대평가	상대평가 비율	A(%)	A+B(%)	C이하(%)	총비율			
			0	0	0	100%			
		절대평가 기준 국제이공학부 절대평가기준에 따름							
참고 사항	<b>* 장애 학생 교수학습지원 사항</b>								
	- 강의	√ 강의 파일, 자료 등 제공	√ 좌석배치(지정좌석) 조정						
		기타 : -----							
	- 과제	과제 제출기한 연장	대안적 과제 제시						
	- 평가	시험시간 연장	√ 평가방법 조정(대독, 구두응답, 도우미 대필 답안작성 등)						
	별도의 시험 장소 제공								
	기타 : -----								
	그 외(필요시 자유로이 추가 기술) :								
	※ 위 지원사항 등을 포함한 강의, 과제, 시험 등 학습과정에서 장애로 인하여 추가 지원이 필요한 경우 개강전 담당강사 및 장애 학습 지원센터를 통해 문의 바랍니다.								
<b>주별 강의내용</b>									
주별	수업목표	수업내용			수업방식	자료, 과제 및 기타 참고사항	수업방식별시간		
							온라인	오프라인	

주별 강의내용						
주별	수업목표	수업내용	수업방식	자료, 과제 및 기타 참고사항	수업방식별시간	
					온라인	오프라인
1주	Intro	Intro	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
2주	Basic concepts I	Basic concepts I	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
3주	Basic concepts II	Basic concepts II	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
4주	Basic Laws I	Basic Laws I	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
5주	Basic Laws II	Basic Laws II	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
6주	Methods of Analysis I Node Analysis	Methods of Analysis I Node Analysis	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
7주	Methods of Analysis II Mesh Analysis	Methods of Analysis II Mesh Analysis	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
8주	Mid-term Exam	Mid-term Exam	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
9주	Circuit Theorems	Circuit Theorems	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
10주	Operational Amplifiers	Operational Amplifiers	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
11주	Capacitors & Inductors	Capacitors & Inductors	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
12주	First-Order Circuits	First-Order Circuits	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
13주	Second-Order Circuits I	Second-Order Circuits I	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
14주	Second-Order Circuits II	Second-Order Circuits II	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			
15주	Final Exam	Final Exam	Focused on face-to-face classes and flexibly operated in accordance with Corona guidelines			

AI활용방법(√)	생성형 AI 사용 금지	√ 생성형 AI 사용 부분적 허용	생성형 AI 사용 전면적 허용
AI활용 세부내용	<p>Partial Permission for Use of Generative AI</p> <ul style="list-style-type: none"> <li>- Generative AI may be used as a supplementary learning tool within the scope permitted by the instructor.</li> <li>- When completing assignments or exams, materials generated by generative AI cannot be used directly. They must be reviewed and revised by the submitter, and the source must be clearly indicated.</li> <li>- Any use outside of the permitted scope will be considered cheating on the assignment and grade, and students may be subject to sanctions according to school regulations.</li> </ul>		