

SYLLABUS

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|--|---|---|------|----------|---|------------|---------------|
| Classification | Required | Course No. | 9501 | Cr. Hrs. | 4 | Instructor | Chang-Duk Jun |
| Course Title | Korean | 고급분자생물학 | | | | | |
| | English | Advanced Molecular Biology | | | | | |
| Course Outline : Diverse aspects of eucaryotic cells at the molecular level will be discussed in this course. Especially the course will focus on the principles by which cells function and thus lead students to understanding of current molecular and cellular biology | | | | | | | |
| Prerequisite | | | | | | | |
| Textbook and References | | Molecular Biology of the Cell, 4th ed. (by Alberts et al) | | | | | |
| Weekly Course Schedule | | | | | | | |
| Calendar | Description | | | | | Lecturers | |
| 1st week (9/2) | Course introduction | | | | | Jun CD | |
| 2nd week (9/9, 9/11) | Chapter 10 Membrane structure | | | | | Kim DH | |
| 3rd week (9/16, 9/18) | Chapter 12 Intracellular compartments and protein sorting | | | | | Song MR | |
| 4th week (9/23, 9/25) | Chapter 13 Intracellular vesicular traffic | | | | | Chang S | |
| 5th week (9/30, 10/2) | Chapter 15 Cell communication | | | | | Chun JS | |
| 6th week (10/7, 10/9) | 9th International Congress on Cell Biology | | | | | Jun CD | |
| 7th week (10/14, 10/16) | Chapter 16 The cytoskeleton | | | | | Chang S | |
| 8th week (10/21) | Midterm Exam | | | | | Jun CD | |
| 9th week (10/28, 10/30) | Chapter 19 Cell junctions, cell adhesion, and the ECM | | | | | Song MR | |
| 10th week (11/4, 11/6) | Chapter 20 Germ cells and fertilization | | | | | Cho C | |
| 11th week (11/11, 11/13) | Chapter 21 Development of multicellular organisms | | | | | Cho C | |
| 12th week (11/18, 11/20) | Chapter 17 The cell cycle and programmed cell death | | | | | Lee JY | |
| 13th week (11/25, 11/27) | Chapter 23 Cancer | | | | | Lee JY | |
| 14th week (12/2, 12/4) | Chapter 24 The adaptive immune system | | | | | Jun CD | |
| 15th week (12/9, 12/11) | Chapter 25 Pathogens, infection, and innate immunity | | | | | Jun CD | |
| 16th week (12/18) | Final Exam | | | | | Jun CD | |

* If there will be experiments, mark it in the "Remarks".

Coordinator Chang-Duk Jun

Dept. Chair Chul-Seung Park

※ 참여교수 : 전창덕, 김도한, 송미령, 장성호, 전장수, 조정희, 이주영



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|--|----------|--|-------|-------------------|-------|---------------------------|-----|
| Classification | Elective | Course No. | 00602 | Hrs.: E : Credits | 3:0:3 | Instructor | GTI |
| Course Title | Korean | 특허개론: 실습을 통해 배우는, 부(富)를 창출하는 특허만들기 | | | | | |
| | English | Introduction to Patents: Making Patent, Creating Fortune | | | | | |
| Course Outline Due to globalization and fast dissemination of knowledge through the internet, developing science and technology has become competitive and expensive, and the lifetime of technology very short. Under the current situation, one should be able to find, read and understand the patents of one's competition (scientists, R&D group, company, and nation). In addition, because it is very expensive to make patents one should know how to make money-making strategic patents that can be sold beyond the cost of making patents. In this course, one can learn the essence of patents and apply them in searching and making patents, which will help one's study and research here at GIST. Participation: 10%, Quiz: 20%, 실습 1: 30%, 실습 2: 40% | | | | | | | |
| Prerequisite | | None | | | | | |
| Textbook and References | | Lecture Note and Handouts Selected articles, invention disclosure, etc. | | | | | |
| Weekly Course Schedule | | | | | | | |
| Calendar | | Description | | | | *Remarks | |
| 1st week | | 특허와 연구개발 | | | | Instructor | |
| 2nd week | | 특허법 개론 - 한국/미국/일본/유럽 특허제도의 원리와 특허요건 - 한국/미국/일본/유럽 특허의 출원 및 등록절차 - PCT, 우선권주장, 신규성의제 등의 주요절차 | | | | Patent Attorney from KIPO | |
| 3rd week | | 직무발명과 연구성과 - 직무발명제도의 이해 - 공동연구개발의 소유권 - 산업체 위탁과제의 소유권 | | | | Patent Attorney from KIPO | |
| 4th week | | 특허명세서의 이해 - 특허명세서의 구성 - 특허청구범위의 해석 - 특허명세서 작성시 유의점 | | | | Patent Attorney from KIPO | |
| 5th week | | 특허검색의 이해 - 특허분류 체계의 이해, 키워드 조사방법 - 국가별 DB 및 이용법 소개 - Quiz: 20% | | | | Patent Attorney from KIPO | |
| 6th week | | [특강] 국가 R&D 정책과 특허 - 교육과학기술부 or 지식경제부: 정부과제 수행과 특허조사 - 특허청: 특허심사 지침 및 특허관련 각종 지원사업 소개 | | | | Invited Speakers | |
| 7th week | | 특허검색 실습 - 생명기술분야 특허검색의 유의점 | | | | Patent Attorney from KIPO | |

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| | - 표준특허의 이해 | |
| 8th week | 특허검색 결과발표 및 평가 - 평가비율 30% | Instructor |
| 9th week | 기술의 가치평가 - 기술가치평가의 방법론 - 특허지수의 소개 - 시장조사 방법론 | Invited Speakers |
| 10th week | 특허맵의 목적 및 종류 - 기술분류표 작성방법 - 데이터 추출 및 처리 | Patent Attorney from KIPO |
| 11th week | 특허맵 분석기법 - 인용특허, 패밀리 특허 분석 - 기술발전도 작성 - 정량분석의 종류 및 목적 | Patent Attorney from KIPO |
| 12th week | 특허맵 분석기법 - 정성분석 기법 - 정량분석 사례분석 - 정성분석 사례분석 | Patent Attorney from KIPO |
| 13th week | 특허맵 실습 - 정량분석 tool 소개 및 사용법 - 특허 포트폴리오 구축 전략 | Patent Attorney from KIPO |
| 14th week | [특강] 주요 대기업의 특허경영 사례 - 삼성전자, LG전자, 삼성SDI 등 | Invited Speakers |
| 15th week | 특허맵 결과발표 및 평가 I - 평가비율 40% | Instructor |
| 16th week | 특허맵 결과발표 및 평가 II - 평가비율 40% | Instructor |

Instructor GTI (Seal)

Dept. Chair Park, Seong Ju

Dean of Academic &

Student Affairs

