

Syllabus [2025Year 2 Term]

Course Information

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|------------------------|---|--|------------------------|
| Course Title | Basic Mobile Programming | Credits | 3 |
| Course Code | 556550-1 | Required/Elective (For Undergraduate Courses) | Selective majors |
| Department or Major | Department of Mobile Systems Engineering | Language | English |
| Methods of Teaching | | Lecture Room | 월15,16,17,18,19(국제608) |
| Time Allotment | Lecture(3) Experiments(0) Trainging & Practice(0) Performance(0) Designing & Planning(0) | Cyber Lectures | |
| Course Type | offline | | |
| Cyber Lectures Preview | | | |

Lecturer

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|----------|----------------------|--|------|-------------------|----------------------------|----|
| Lecturer | Name | WOOJIN JEONG | Rank | Adjunct Professor | Final Academic Degree | 박사 |
| | Department & college | Department of Mobile Systems Engineering | | Office | | |
| | Office Phone Number | — | | e-mail | jeong.woojin@dankook.ac.kr | |
| | Field of Interest | | | | | |

Course Summary

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| Course Description | This course includes the study about programming to create the applications on Android using JAVA or Kotlin. |
| Description Related Courses | Prerequisite : JAVA programming language / Kotlin programming language |
| Course Goals | <ul style="list-style-type: none"> – Gain a better understanding of the mobile operating system – Empower beginners to develop mobile apps with ease. – By developing Term project, improve to understand mobile programming & system |
| Projected Results | <ul style="list-style-type: none"> – Understand the mobile operating system – Can quickly create application. – Can think about the useful mobile application while develop term-project. |

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| Percentage of the original language classes(%) | |
| Cyber Lectures P review | |

Syllabus

| Times | Lecture Topic | Lecture Goals | Lecture Methods | Assignments |
|-------|---|---|-----------------|-------------|
| 1 | Course introduction., First Android Application | <ul style="list-style-type: none"> •Syllabus overview •Setting up the development environment (Android Studio, JDK) •Introduction to Git and version control •Creating the first simple Android app | 강의, | |
| 2 | Basic UI components (Widget) | <ul style="list-style-type: none"> •Understanding View •Basic UI components: TextView, EditText, Button •Introduction to XML for UI design" | 강의, | |
| 3 | Layout & User interface | <ul style="list-style-type: none"> •Layouts: LinearLayout, RelativeLayout, ConstraintLayout •Handling user interactions •Event listeners and handlers •Toast messages •Introduction to UX principles and design best practices | 강의, | |
| 4 | Activity, intents & navigation | <ul style="list-style-type: none"> •Activities and lifecycles •App lifecycle and state management •Explicit and implicit intents •Passing data between activities •Navigating between activities | 강의, | |
| 5 | Advanced UI Components | <ul style="list-style-type: none"> •RecyclerView and ListView •Adapters and view holders •CardView •Customizing UI components | 강의, | |

| Times | Lecture Topic | Lecture Goals | Lecture Methods | Assignments |
|-------|-------------------------------|--|-----------------|-------------|
| 6 | Data Storage and Persistence | <ul style="list-style-type: none"> •SharedPreference s •Internal and external storage •SQLite databases •Room persistence library •File I/O | 강의, | |
| 7 | Midterm exam | Midterm exam | 강의, | |
| 8 | Multimedia and Graphics | <ul style="list-style-type: none"> •Handling images and media •Playing audio and video •Using the Camera API •Introduction to custom views and canvases | 강의, | |
| 9 | Threads and Services | <ul style="list-style-type: none"> •Understanding multithreading •Introduction to services •Bound and unbound services •IntentService and JobIntentService | 강의, | |
| 10 | Networking and Web Services | <ul style="list-style-type: none"> •HTTP requests with Volley and Retrofit •Parsing JSON •Connecting to RESTful APIs •Background tasks with AsyncTask | 강의, | |
| 11 | Location service & google map | <ul style="list-style-type: none"> •Accessing location services with GPS •Google Maps integration •Location tracking | 강의, | |
| 12 | Firebase Integration | <ul style="list-style-type: none"> •Introduction to Firebase •Firebase Authentication •Firebase Realtime Database •Firebase Cloud Messaging | 강의, | |
| 13 | Term Project Development-1 | - Progress meeting #1 | 강의, | |
| 14 | Term Project Development-2 | - Progress meeting #2 | 강의, | |

| Times | Lecture Topic | Lecture Goals | Lecture Methods | Assignments |
|-------|----------------------------|----------------|-----------------|-------------|
| 15 | Term Project Development-3 | - Final Report | 강의, | |

Methods of Grading

| sequence | Description | Percentage | Details |
|----------|-----------------------------|------------|---------|
| 1 | Mid-tem Exam | 20% | |
| 2 | Final-exam | 0% | |
| 3 | Pop Quizzes | 0% | |
| 4 | Assignments | 50% | |
| 5 | Reports | 0% | |
| 6 | Presentations & Discussions | 0% | |
| 7 | Attendance | 10% | |
| 8 | | 0% | |
| 9 | Others | 20% | |
| All | | 100% | |

Core of Value

| 핵심가치 | 전공역량 | 역량정의 | 역량구분 | 값(%) |
|----------------------------|---------------------------------------|--|------|------|
| 혁신 (Discovery) | 창의적문제해결 (Creative problem-solving) | 주어진 상황과 문제를 창의적으로 해결할 수 있는 능력 | | 0% |
| 혁신 (Discovery) | 도전 (Challenging) | 전공 지식을 새로운 분야와 융합하고 아우를 수 있는 능력 | 부역량 | 0% |
| 혁신 (Discovery) | 지식융합 (Knowledge convergence) | 새로운 분야를 개척하거나 도전적으로 임할 수 있는 능력 | | 0% |
| 헌신 (Dedication) | 세계시민 (Universal value) | 세계 공동체 구성원으로 전공자로서 국제적 이슈에 대응할 수 있는 능력 | | 0% |
| 헌신 (Dedication) | 상호협력 (Cooperation) | 공동의 목적 달성을 위해 타인과 상호협력을 할 수 있는 능력 | | 0% |
| 헌신 (Dedication) | 공동체 (Sense of community) | 공동체의 구성원으로서 필요한 태도와 윤리의식을 가질 수 있는 능력 | | 0% |
| 능동 (self-Determination) | 자기주도 (Self-Managing) | 주어진 상황과 문제를 주도적이고 능동적으로 해결할 수 있는 능력 | | 0% |

| 핵심가치 | 전공역량 | 역량정의 | 역량구분 | 값(%) |
|----------------------------|---------------------------------|---------------------------------------|------|------|
| 능동 (self-Determination) | 지식활용 (Knowledge application) | 주어진 상황과 문제에 대해 논리적으로 파악하고 분석할 수 있는 능력 | 주역량 | 0% |
| 능동 (self-Determination) | 논리적사고 (Logical thinking) | 전공관련 지식을 필요에 따라 다양하게 적용하고 활용할 수 있는 능력 | 부역량 | 0% |
| 능동 (self-Determination) | 의사소통 (Articulation) | 대화를 통해 다양한 의견을 조율하고 합의를 이끌어 낼 수 있는 능력 | | 0% |

Textbook(s) & References

| Description | Title | Author | Publisher |
|-------------------|-------------------------|--------------|-----------|
| Required Textbook | Lecture Notes | Woojin Jeong | - |
| References | Android Developer Guide | Android | Android |

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