

Course Requirements, Schedule, and Introduction to Course

MISY3483 - R&D Project Development

Week - 1



Course Requirements

No	Deliverables
1	Deliverable 1: Idea and project concept presentation
2	Deliverable 2: Project goal and objectives
3	Deliverable 3: TVC and literature review
4	Deliverable 4: KPIs and WPs
5	Deliverable 5: Whole project proposal
6	Deliverable 6: Presentation
7	Deliverable 7: Peer Reviews
7	Deliverable 7: 2209-A Full Project Proposal

Course Requirements

grading will be based on the following ingredients:

- midterm → deliverable-7 (2209-A Project proposal)
- deliverables
- final exam

item	score
midterm (deliverable-7)	30%
deliverables	36%
final exam	34%

Passing Requirements

to pass the course, you must satisfy all the following; all other students will get a failing grade (F) from this course:

- deliver all assignments on time
- midterm → at least **50 points**
- final exam → at least **50 points**
- passing grade → **60 points**

Course Schedule

Week	Subject
1 22.09.2025	Course Requirements and Schedule, Introduction to Course <i>Introduction to Course: Generating New Ideas: Brainstorming and Discussion. How to Generate New Ideas? A Lack of Ideas: Blocks to Creative Thinking. Creative Thinking Skills. MindMapping.</i>
2 29.09.2025	Innovation <i>Frascati and Oslo Manuals. What is Innovation? Innovation Types. Product and Process. Product Innovation and Process Innovation. Marketing Innovation. Organizational Innovation.</i>
3 06.10.2025	Research and Development <i>What is Research and Development? Basic Research. Applied Research. Experimental Development. How are R and D Separated? The Continuum of Research and Development. Five Core Criteria. Research and Development Activities and Examples. Research and Development Project Structure.</i>
4 13.10.2025	Student Presentations (Deliverable – 1): PARTICIPATION IS REQUIRED. <i>Project topics will be presented by the students and will be improved in the classroom together.</i>
5 20.10.2025	Funding Programmes and Documents <i>Funding Programmes. National Programmes. Academic Programmes. Other Programmes. Organization of Programmes. International Programmes. TÜBİTAK 2209 Programme Documents.</i>
6 27.10.2025	R&D Project Content and Technology Level <i>Hype Cycles and Magic Quadrants. Value Chain. Technology Value Chain. Market Value Chain. State of the Art (SoTA). Key Performance Indicators (KPIs).</i>
7 03.11.2025	Innovation & Strategies <i>Spending and Innovation. What Makes the Difference for Successful Innovators? Additional Capabilities of Best Performing Companies. Company Product Strategy. Product Line. Product Mix. Product Development Stages. The Technology Life Cycle. Consumer Adoption. Project R&D Content. Innovative Aspects. Technology Level.</i>

R&D

Course Schedule

FALL BREAK	
8 17.11.2025	Project Structure and Work Package Concept <i>Work Plan. Work Breakdown for R&D Projects. Work Package (WP). Key Elements of a WP. Effort Breakdown. Work Plan and Infrastructure. Cost.</i>
9 24.11.2025	Evaluation of the R&D Projects <i>How to Evaluate the R&D Projects? Important Points to Evaluate the R&D Projects. Convince the Reviewers. First Evaluate Yourself. Spider Evaluation. Quantitative Variables of Proposals. Evaluation Forms.</i>
10 1.12.2025	Presentation of the R&D Projects <i>R&D Project Presentation. Types of Presentation. Common Problems. Technical Presentation. Summary Presentation. Full Presentation. Acceptance Presentation. Elevator Pitch. Layout of the Presentation.</i>
11 8.12.2025	Student Presentations (Del 4 – Del 5): Negotiation and Evaluation by Referees <i>Presentation and Discussion.</i>
12 15.12.2025	Entrepreneurship Opportunities in Turkey <i>Entrepreneurship. Entrepreneur. 1512 TÜBİTAK Teydeb Entrepreneurship Programme</i>
13 22.12.2025	Execution of R&D Projects <i>Project Management Tools. Techniques and Methodologies. Project Progress Reporting.</i>
14 29.12.2025	Student Presentations (Deliverable 7), Review of the Course <i>What we have Done so far. Final Projects' Presentations.</i>

Introduction to Course

- this course will introduce the fundamentals of preparing, planning, and developing of R&D projects
- topics include R&D project idea generation, innovation concept in R&D, preparation of project description and project proposal, and presentation of project proposals, negotiation and evaluation of projects



Introduction to Course

- the preparing, planning, developing, and management of R&D require specialized knowledge of various phases of an R&D project, the different funding sources available and funding programs involved, and considering the internationalization trend of R&D projects
- in this context, this course aims to enable students to learn the fundamentals and main activities in the phases of design, preparation of the proposed R&D, negotiation, and planning & execution of an R&D



R&D



- is a general term for activities in connection with corporate or governmental innovation
- is a component of **innovation**
- is situated at the front end of the innovation life cycle
- innovation builds on R&D and includes **commercialization** phases

R&D

research →

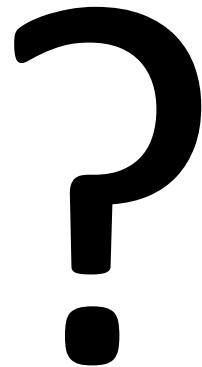
- is a systematic study directed towards
 - fuller scientific knowledge or
 - understanding of the subject studied
- is classified as either **basic** or **applied** research

research and development →

- used to refer to activities for intellectual work creating new knowledge (research) and developing new products

Project vs R&D Project

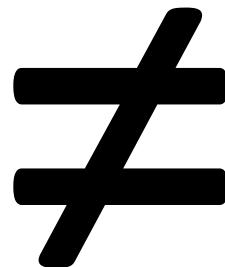
Project



R&D Project

Project vs R&D Project

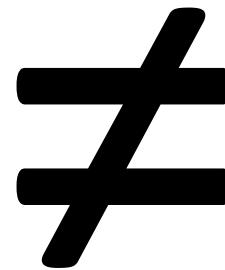
Project



R&D Project

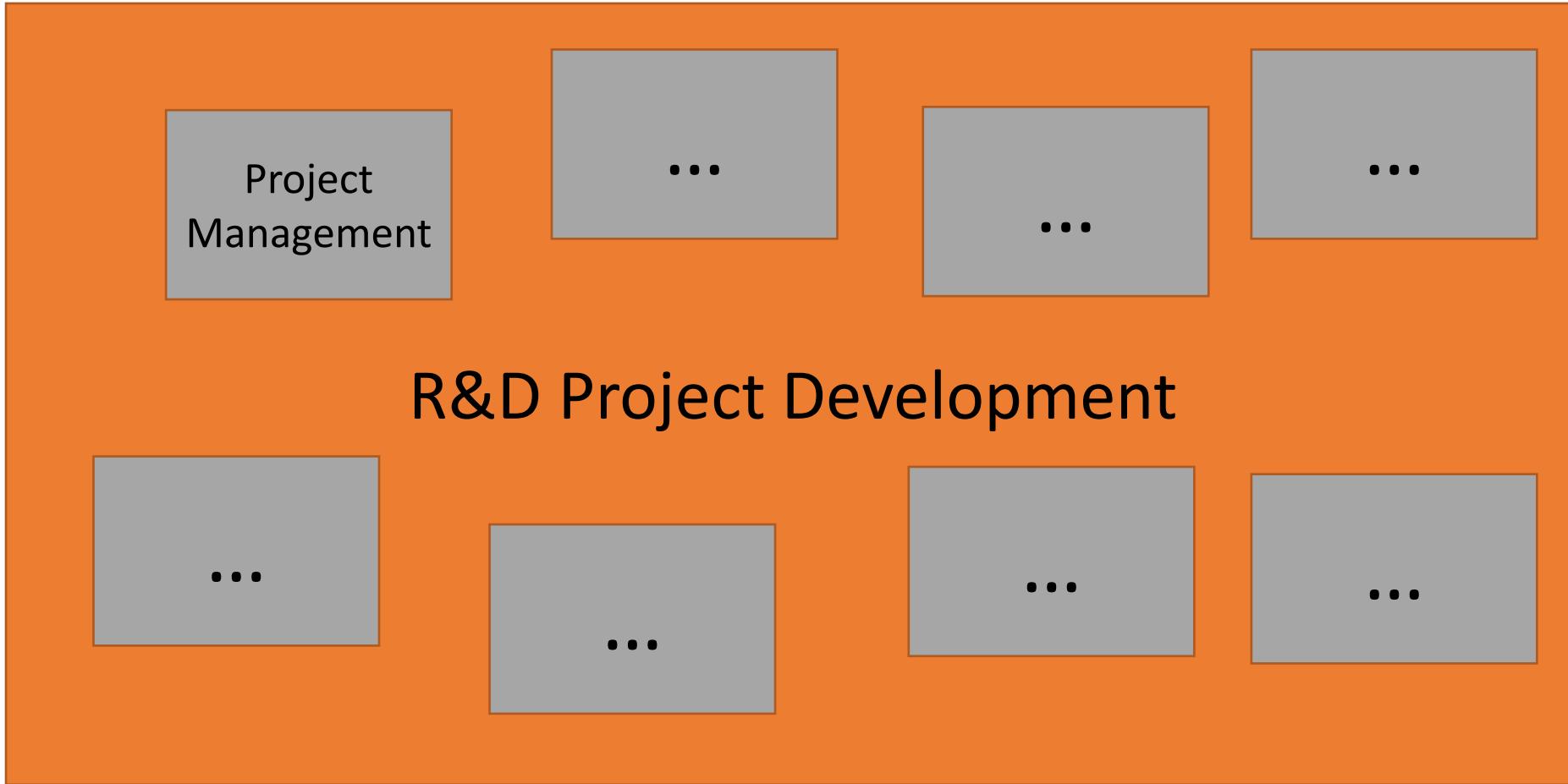
Management vs Development

Project
Management



R&D Project
Development

R&D Project Development



Questions?