

Gazi University Faculty of Technology Department of Industrial Design Engineering Undergraduate Program

(Effective from the Fall semester of the 2024–2025 academic year, starting with first-year students.)

1st Semester		Course			
Code	Course	T	P/L	Total	ECTS
ENG101	English I	4	0	4	2
PHY101	Physics I	4	0	4	6
MAT101	Mathematics I	4	0	4	6
TUR101	Turkish Language I	2	0	2	2
PHY156	Physics Lab	0	2	2	2
ETM101	Intro to Design Engineering	2	0	2	2
ETM103	Technical Drawing I	2	1	3	3
ETM105	Basic Design I	2	2	4	4
ETM107	Sketching Techniques	1	1	2	2
Total		21	6	27	29
2nd Semester		Course			
Code	Course	T	P/L	Total	ECTS
ENG102	English II	4	0	4	2
PHY102	Physics II	4	0	4	6
MAT102	Mathematics II	4	0	4	6
TUR102	Turkish Language II	2	0	2	2
CHE101	Chemistry	4	0	4	6
CHE151	Chemistry Lab	0	2	2	2
ETM104	Technical Drawing II	2	1	3	3
ETM106	Basic Design II	2	2	4	4
Total		21	6	27	29

3rd Semester		Course			
Code	Course	T	P/L	Total	ECTS
ENG201	English III	4	0	4	2
MAT201	Differential Equations	4	0	4	6
MAT203	Linear Algebra	3	0	3	5
STA201	Probability & Statistics	3	0	3	5
HIS101	Atatürk History I	2	0	2	2
ETM201	Materials Science	3	0	3	4
ETM203	Statics	3	0	3	3
ETM205	Engineering Design Tools	2	2	4	4
Total		24	2	26	31
4th Semester		Course			
Code	Course	T	P/L	Total	ECTS
ENG202	English IV	4	0	4	2
HIS102	Atatürk History II	2	0	2	2
MAT202	Numerical Analysis	3	0	3	5
ETM202	Manufacturing Tech	1	2	3	3
ETM204	Strength of Materials	3	0	3	3
ETM206	Design for X	2	2	4	4
ETM208	Mechanisms	2	1	3	3
ETM210	Electronics for Design	2	0	2	2
ETM212	CAD	1	2	3	2
TS2B1	Technical Elective I	2	0	2	3
Total		24	5	29	29

5th Semester		Course			
Code	Course Name	T	P/L	Total	ECTS
EKO301	Economics	2	0	2	2
ENG301	English V	4	0	4	3
İSG301	Occupational Health and Safety I	2	0	2	2
ETM301	Thermodynamics	3	0	3	3
ETM303	Machine Elements I	3	0	3	3
ETM305	Product Design and Development	2	2	4	5
ETM307	Computer Programming	2	1	3	3
ETM309	Systematic Design I	3	0	3	3
TS3G2	Technical Elective II	2	0	2	3
TS3G3	Technical Elective III	2	0	2	3
Total		25	3	28	30
6th Semester		Course			
Code	Course Name	T	P/L	Total	ECTS
İSG302	Occupational Health and Safety II	2	0	2	2
ENG302	English VI	4	0	4	3
ETM302	Fluid Mechanics	3	0	3	3
ETM304	Machine Elements II	3	0	3	4
ETM306	Applied Product and System Design	2	2	4	5
ETM308	Creativity and Innovation	2	0	2	3
ETM310	Graduation Project Preparation	0	2	2	2
TS3B4	Technical Elective IV	2	0	2	3
TS3B5	Technical Elective V	2	0	2	3
ADS	Non-Departmental Elective	2	0	2	2
Total		22	4	26	30

7th Semester		Course			
Code	Course Name	T	P/L	Total	ECTS
TKN401	Workplace Training*	5	15	20	20
TKN403	Internship*	0	0	0	10
Total		5	15	20	30
8th Semester		Course			
Code	Course Name	T	P/L	Total	ECTS
ETM402	Finite Element Analysis*	2	1	3	5
ENG401	English for Technology*	4	0	4	3
ETM404	Design Project Management*	2	0	2	4
ETM410	Graduation Project*	0	2	2	12
TS4B6	Technical Elective VI*	2	0	2	3
TS4B7	Technical Elective VII*	2	0	2	3
Total		12	3	15	30
Overall Total		155	43	198	240

Note: Courses marked with (*) are offered in both semesters; however, students may take them in only one semester.

Faculty of Technology, Department of Industrial Design Engineering – Elective Courses

Technical Elective Course I (TS2B1)		Course			
Code	Course Name	T	P/L	Total	ECTS
ETM230	Perspective	2	0	2	2
ETM232	Engineering Materials	2	0	2	3
ETM234	Semiotics in Design	2	0	2	3
ETM236	Form, Material and Function	2	0	2	3
ETM238	Computer Graphics	2	0	2	3
ETM240	Design Culture	2	0	2	3
ETM242	Descriptive Geometry	2	0	2	3
ETM244	Design Methodologies	2	0	2	3
ETM246	Material Selection in Design	2	0	2	3

Technical Elective Course I (TS3G2)		Course			
Code	Course Name	T	P/L	Total	ECTS
ETM331	Ergonomics	2	0	2	3
ETM333	Mechatronic System Design	2	0	2	3
ETM335	Design for Manufacturing	2	0	2	3
ETM337	Cost Analysis in Design	2	0	2	3
ETM339	Sheet Metal Die Design	2	0	2	3
ETM341	Psychology in Design	2	0	2	3
ETM343	Manufacturing Technologies	2	0	2	3

Technical Elective Course I (TS3G3)		Course			
Code	Course Name	T	P/L	Total	ECTS
ETM351	Automatic Control	2	0	2	3
ETM353	Model and Prototype Development	2	0	2	3
ETM355	Plastic Materials and Technology	2	0	2	3
ETM357	Geometric Dimensioning and Tolerancing	2	0	2	3
ETM359	Computer-Aided Design	2	0	2	3

Technical Elective Course I (TS3B4)		Course			
Code	Course Name	T	P/L	Total	ECTS
ETM330	User-Centered Design	2	0	2	3
ETM332	Medical Device Design	2	0	2	3
ETM334	Furniture Design	2	0	2	3
ETM336	Economic Design	2	0	2	3
ETM338	Ecological Design	2	0	2	3

Technical Elective Course I (TS3B5)		Course			
Code	Course Name	T	P/L	Total	ECTS

ETM350	Systematic Design	2	0	2	3
ETM352	Design for Additive Manufacturing	2	0	2	3
ETM354	Automotive Design	2	0	2	3
ETM356	Injection Mold Design	2	0	2	3
ETM358	Energy Systems Design	2	0	2	3
ETM360	Design for Behavior Change	2	0	2	3

Technical Elective Course I (TS4B6)		Course			
Code	Course Name	T	P/L	Total	ECTS
ETM430	Computer-Aided Manufacturing	2	0	2	3
ETM432	Robotics	2	0	2	3
ETM434	Measurement Techniques	2	0	2	3
ETM436	Advanced Material Technologies	2	0	2	3
ETM438	Advanced Manufacturing Technologies	2	0	2	3
ETM440	Heat and Mass Transfer	2	0	2	3
ETM442	Hydraulic and Pneumatic System Design	2	0	2	3
ETM444	Reverse Engineering Design	2	0	2	3
ETM446	Entrepreneurship	2	0	2	0

Technical Elective Course I (TS4B7)		Course			
Code	Course Name	T	P/L	Total	ECTS
ETM450	Computer-Aided Design	2	0	2	3
ETM452	Animation Applications in Design	2	0	2	3
ETM454	Optimization	2	0	2	3
ETM456	Virtual Reality in Design	2	0	2	3
ETM458	Artificial Intelligence Applications in Design	2	0	2	3
ETM460	Interactive Portfolio Design	2	0	2	3