BURSA ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2021-2022 ACADEMIC YEAR COURSE PLAN

FR 1.1.1_02

DEPARTMENT OF	**INDUSTRIAL ENGINEERING**
DEPARTMENT / PROGRAM	INDUSTRIAL ENGINEERING / Integrated Doctoral Program

COURSE STAGE

I. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
END5101	MATHEMATICAL PROGRAMMING	C	3	0	0	3	7.5
END5	ELECTIVE COURSE	E	3	0	0	3	7.5
END5	ELECTIVE COURSE	E	3	0	0	3	7.5
	ELECTIVE COURSE *	E	3	0	0	3	7.5
	Total Credits/ECTS					**12**	**30**

II. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
END5	ELECTIVE COURSE	E	3	0	0	3	7.5
END5	ELECTIVE COURSE	E	3	0	0	3	7.5
END5	ELECTIVE COURSE	E	3	0	0	3	7.5
	ELECTIVE COURSE *	E	3	0	0	3	7.5
	Total Credits/ECTS					**12**	**30**

III. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
END6101	LINEAR PROGRAMMING	C	3	0	0	3	7.5
END6	ELECTIVE COURSE	E	3	0	0	3	7.5
END6	ELECTIVE COURSE	E	3	0	0	3	7.5
	ELECTIVE COURSE *	E	3	0	0	3	7.5
	Total Credits/ECTS					**12**	**30**

IV. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
END6102	INTEGER PROGRAMMING	C	3	0	0	3	7.5
END6112	ADVANCED SIMULATION TECHNIQUES	C	3	0	0	3	7.5
END6	ELECTIVE COURSE	E	3	0	0	3	7.5
	ELECTIVE COURSE *	E	3	0	0	3	7.5
	Total Credits/ECTS					**12**	**30**

STAGE THESIS

V. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
FEN6000	RESEARCH TECHNIQUES AND PUBLICATION ETHICS	C	2	0	0	2	2
END6171	SEMINAR	C	0	0	0	0	5
YET6177	PHD PROFICIENCY EXAMINATION **	C	0	0	0	0	23
	Total Credits/ECTS					**2**	**30**

VI. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
END6182	ADVANCED TOPICS IN PHD THESIS I	C	4	0	0	0	5
END6192	PHD THESIS I	C	0	0	0	0	25
	Total Credits/ECTS					**0**	**30**

VII. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
END6183	ADVANCED TOPICS IN PHD THESIS II	C	4	0	0	0	5
END6193	PHD THESIS II	C	0	0	0	0	25
	Total Credits/ECTS					**0**	**30**

VIII. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
END6184	ADVANCED TOPICS IN PHD THESIS III	C	4	0	0	0	5
END6194	PHD THESIS III	C	0	0	0	0	25
	Total Credits/ECTS					**0**	**30**

IX. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
END6185	ADVANCED TOPICS IN PHD THESIS IV	C	4	0	0	0	5
END6195	PHD THESIS IV	C	0	0	0	0	25
	Total Credits/ECTS					**0**	**30**

X. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
END6186	ADVANCED TOPICS IN PHD THESIS V	C	4	0	0	0	5
END6196	PHD THESIS V	C	0	0	0	0	25
	Total Credits/ECTS					**0**	**30**

TOTAL CREDITS: 50 - TOTAL ECTS: 300

Note: The student is expected to take a total of 12 credits (30 ECTS) compulsory and elective courses per term, in terms I-IV. The prerequisites of the courses in terms III and IV are the C and E group courses in terms I and II or their equivalents. The consents of the student's supervisor and the course instructor are taken for satisfying the prerequisites of the courses in terms III and IV.

(*) The student has the option of choosing at most two elective courses from other Master programs to be counted as E group courses in terms I and II with the approval of the supervisor and Head of Department.

(**) Success in Ph.D. proficiency exam is a prerequisite for registering the courses specified in the 5th term and the following terms.

Head of Industrial Engineering Department
Prof. Dr. Erdal EMEL

Director of Institute
Prof. Dr. Hüseyin Aksel EREN

DEPARTMENT OF | **INDUSTRIAL ENGINEERING**

DEPARTMENT / PROGRAM | INDUSTRIAL ENGINEERING / Integrated Doctoral Program

COURSE STAGE

I. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
END5113	COMPUTER AND MANUFACTURING	E	3	0	0	3	7.5
END5115	SIMULATION ANALYSIS	E	3	0	0	3	7.5
END5121	DESIGN AND ANALYSIS OF ALGORITHMS	E	3	0	0	3	7.5
END5123	HEURISTIC ALGORITHMS	E	3	0	0	3	7.5
END5131	TOTAL QUALITY MANAGEMENT	E	3	0	0	3	7.5
END5151	STATISTICAL DATA ANALYSIS	E	3	0	0	3	7.5
END5153	EXPERIMENTAL DESIGN	E	3	0	0	3	7.5
END5155	STOCHASTIC PROCESSES	E	3	0	0	3	7.5
END5117	MANUFACTURING PROCESSES CONTROL	E	3	0	0	3	7.5
END5119	SUSTAINABLE ENGINEERING	E	3	0	0	3	7.5
END5XX	DATA MINING	E	3	0	0	3	7.5

II. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
END5110	PRODUCTION SYSTEMS	E	3	0	0	3	7.5
END5112	JOB SEQUENCING AND SCHEDULING	E	3	0	0	3	7.5
END5114	ANALYSIS OF INVENTORY SYSTEMS	E	3	0	0	3	7.5
END5116	FACILITY LOCATION AND LAYOUT	E	3	0	0	3	7.5
END5132	ENGINEERING ECONOMY	E	3	0	0	3	7.5
END5134	TECHNOLOGY MANAGEMENT	E	3	0	0	3	7.5
END5136	STRATEGIC DECISION SUPPORT SYSTEMS	E	3	0	0	3	7.5
END5156	RELIABILITY ENGINEERING	E	3	0	0	3	7.5
END5140	NOISE IMPACT ENGINEERING	E	3	0	0	3	7.5
END5138	MULTICRITERIA DECISION MAKING	E	3	0	0	3	7.5
END5122	EMBEDDED OPTIMIZATION TECHNIQUES	E	3	0	0	3	7.5
END5124	CONSTRAINT PROGRAMMING	E	3	0	0	3	7.5
END5XX	APPLIED MACHINE LEARNING	E	2	0	1	3	7.5

III. TERM / FALL

END6105	DYNAMIC PROGRAMMING	E	3	0	0	3	7.5
END6113	SUPPLY CHAIN MANAGEMENT	E	3	0	0	3	7.5
END6115	MANAGEMENT OF INTEGRATED MANUFACTURING SYSTEMS	E	3	0	0	3	7.5
END6117	MANAGEMENT OF PRODUCT DESIGN	E	3	0	0	3	7.5
END6123	DEEP NEURAL NETWORKS	E	3	0	0	3	7.5
END6131	FINANCIAL ENGINEERING	E	3	0	0	3	7.5
END6141	HUMAN-MACHINE SYSTEMS	E	3	0	0	3	7.5
END6107	MULTI-OBJECTIVE OPTIMIZATION	E	3	0	0	3	7.5

IV. TERM / SPRING

END6104	NONLINEAR PROGRAMMING	E	3	0	0	3	7.5
END6108	COMPLEXITY ANALYSIS	E	3	0	0	3	7.5
END6114	DESIGN OF INTEGRATED MANUFACTURING SYSTEMS	E	3	0	0	3	7.5
END6116	ADVANCED TOPICS IN QUALITY CONTROL	E	3	0	0	3	7.5
END6122	ARTIFICIAL INTELLIGENCE	E	3	0	0	3	7.5
END6142	PHYSIOLOGY AND PSYCHOLOGY IN ERGONOMICS	E	3	0	0	3	7.5
END6144	ERGONOMICS IN PRODUCT DESIGN	E	3	0	0	3	7.5
END6126	ADVANCED DATA MINING	E	3	0	0	3	7.5

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