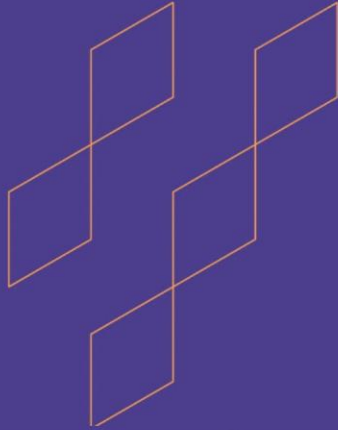




Course Specification

(Postgraduate Programs)

Course Title: Thesis
Course Code: 2202-599
Program: Master in Electrical Engineering
Department: Electrical Engineering
College: Engineering
Institution: King Faisal University
Version: 1
Last Revision Date: 17 th April 2025

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A. General information about the course:

Course Identification	
1. Credit hours:	6
2. Course type	
a.	University ☐ College ☐ Department ☒ Track ☐ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered:	Level 4/2nd year
4. Course general Description:	
This course is required for the Master degree in Electrical Engineering. Although the content varies widely depending on the subject, all capstone projects culminate in a thesis manuscript that upon completion becomes publicly available to the university. The student will choose a research topic under the supervision of a faculty member. After approval of the thesis subject, the student needs to define objectives of the research and prepare the research proposal. In the proposal, the student is required to • conduct an exhaustive survey • identify and define the problem clearly • decide the scope of the problem and provide its assumptions and limitations • ensure the originality of the research proposal • suggest the approach and methodology used in the research and • present the expected results. • At the successful presentation of the proposal, student will be asked to submit the proposal. The student will apply the proposed methodology to solve the problem. After completion, student will submit the thesis for defense according to the university regulations.	
5. Pre-requirements for this course (if any): 9 CH from core courses and 6 CH from electives	
6. Co- requirements for this course (if any): None	
7. Course Main Objective(s)	
• Identify different styles and qualities of writing, critically evaluate written work, including one's own, and improve one's own writing. • Outline the steps of the research process, state key research obligations and pitfalls, and design a credible, meaningful research project. • Use Software tools and manage academic sources and citations to competently and efficiently produce documents that meet university graduate studies requirements. • State and demonstrate the competencies that are required to prepare a Master's Thesis manuscript in the EE program.	



- Describe their Master's project concisely, in written and oral forms, to faculty, mentors, and potential sponsors.

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	90	100%
2.	E-learning		
3.	Hybrid - Traditional classroom - E-learning		
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours	Percentage
1.	Study		
2.	Assignments		
3.	Library		
4.	Projects/Research Essays/Theses	60	67%
5.	Others (specify): Meeting with the supervisor	30	33%
	Total	90	100%

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Systematically integrate knowledge acquired during the studies	K1	Report write up	Panel Evaluation
1.2	Demonstrate substantially deepened knowledge of methodology as well as knowledge of the subject area within the main field of study	K1	Report write up	Panel Evaluation
1.3	Assimilate the content of the relevant literature and relate their work to this	K1	Report write up	Panel Evaluation
2.0	Skills			

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.1	Demonstrate ability to plan and implement an independent thesis project	S1	Report write up	Panel Evaluation
2.2	Evaluate related scientific literature to solve the selected research problem	S1	Report write up	Panel Evaluation
2.3	Conduct design/experimentation to deliver the research objectives	S2	Report write up	Panel Evaluation
2.4	Clearly present and discuss conclusions on the thesis in writing and orally	S3	Report write up	Panel Evaluation
3.0	Values, autonomy, and responsibility			
3.1	Appraise the economic, environmental, social, political, health and safety impact of their final product, as well as study its manufacturability, and sustainability.	V1	Report write up	Panel Evaluation
3.2	Appraise the ethical issues related to the outcome of the thesis	V2	Report write up	Panel Evaluation
3.3	Critically examine other practical projects to learn new knowledge in the field of study	V3	Report write up	Panel Evaluation

C. Course Content

No	List of Topics	Contact Hours
1.	Determined individually for each student in consultation with the examiner and supervisor. The research must be carried out in the main field of study. Contents include Conduct an exhaustive survey Identify and define the problem clearly Define scope of the problem and provide its assumptions and limitations Define approach and methodology used in the research	90





Total		90

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Planning Thesis	4	10%
2.	Midway Assessment 1	14	10%
3.	Midway Assessment 2	18	20%
4.	Written Thesis	20	30%
5.	Oral Presentation	Final Week	30%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Books relevant to the Topic and Subject area
Supportive References	Journal Papers and Periodicals
Electronic Materials	https://sdl.edu.sa/SDLPortal/ar/Publishers.aspx
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Dedicated EE lab
Technology equipment (projector, smart board, software)	Data Show, Software
Other equipment (depending on the nature of the specialty)	Measurement Instruments Other components will be specified in due time

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Students fill a faculty evaluation form at the end of each semester to Evaluate effectiveness of teaching and assessment	KFU	Direct



Assessment Areas/Issues	Assessor	Assessment Methods
Direct inquiry by the instructor to evaluate to what extent of achievement of course learning outcomes	Instructor	Direct
Students fill a survey form to evaluate to what extent course learning outcomes are achieved	Department	Indirect
Student grades reflect their understanding	Department	Multiple
Student assessment of course outcomes.	KFU	Survey

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	EE DEPARTMENT QUALITY COMMITTEE
REFERENCE NO.	MEETING # 10
DATE	APRIL 19, 2025