

EE-Course Plan-EIIR

First Year

First Semester		Credits (lecture-Lab-Self study)
01999111	Knowledge of the Land	2(2-0-4)
01204111	Computers and Programming	3(2-3-6)
01417167	Engineering Mathematics I	3(3-0-6)
01420111	General Physics I	3(3-0-6)
01420113	Laboratory in Physics I	1(0-3-2)
01999021	Thai Language for Communication	3(3-0-6)
01355xxx	English	3(- -)
01175xxx	Physical Education Activities	1(0-2-1)
	Total	19(- -)

Second Semester		Credits (lecture-Lab-Self study)
01208111	Engineering Drawing	3(2-3-6)
01403114	Laboratory in Fundamental of General Chemistry	1(0-3-2)
01403117	Fundamental of General Chemistry	3(3-0-6)
01417168	Engineering Mathematics II	3(3-0-6)
01420112	General Physics II	3(3-0-6)
01420114	Laboratory in Physics II	1(0-3-2)
01355xxx	English	3(- -)
	Wellness	3(- -)
	Total	20(- -)

Second Year

First Semester		Credits (lecture-Lab-Self study)
01205211	Electric Circuit Analysis I	3(3-0-6)
01205215	Computer Programming for Electrical Engineering	3(3-0-6)
01205241	Digital Circuits and Logic Design	3(3-0-6)
01208221	Engineering Mechanics I	3(3-0-6)
01417267	Engineering Mathematics III	3(3-0-6)
01355xxx	English	3(- -)
	Language and Communication	1(- -)
	Total	19(- -)

Second Semester		Credits (lecture-Lab-Self study)
01205242	Electronic Circuits and Systems I	3(3-0-6)
01205251	Electromechanical Energy Conversion I	3(3-0-6)
01205216	Signals and Systems	3(3-0-6)
01205217	Electromagnetic Fields and Waves I	3(3-0-6)
01205218	Electrical Instruments and Measurements	3(3-0-6)
01205213	Electronics & Electrical Engineering Lab.	1(0-3-2)
01205214	Electrical Machines Lab. & Electrical Practices	1(0-3-2)
01205348	Electrical Engineering Materials	3(3-0-6)
	Total	20(18-3-38)

“Energy Innovation” Track

Third Year

First Semester		Credits (lecture-Lab-Self study)
01205311	Microprocessor	3(3-0-6)
01205312	Linear Control Systems	3(3-0-6)
01205351	Electromechanical Energy Conversion II	3(3-0-6)
01205352	Electric Power System Analysis I	3(3-0-6)
01205374	Industrial Automation & Control	3(3-0-6)
01205389	Industrial Automation & Control Lab.	1(0-3-2)
01213211	Materials Science for Engineers	3(3-0-6)
	Total	19(- -)

Second Semester		Credits (lecture-Lab-Self study)
01205354	Power System in Buildings	3(3-0-6)
01205358	Renewable Energy	3(3-0-6)
01205359	Power Electronics	3(3-0-6)
01205371	Process Sensors & Transducers	3(3-0-6)
01205373	Embedded Control Systems	3(3-0-6)
01205451	Energy Conservation & Management	3(3-0-6)
01205387	Microprocessor Lab.	1(0-3-2)
01205388	Control and Measurement Lab.	1(0-3-2)
	Total	20(- -)

“Energy Innovation” Track

Fourth Year

First Semester		Credits (lecture-Lab-Self study)
01205399	Internship	1
01205491	Electrical Engineering Project I	1(0-3-2)
01205497	Seminar	1
01205357	Electric Drives	3(3-0-6)
01205479	Internet of Things for Electrical Engineering	3(3-0-6)
01205498	Special Problems	3(- -)
	Aesthetics	3(- -)
	Total	15(- -)

Second Semester		Credits (lecture-Lab-Self study)
01205499	Electrical Engineering Project II	3(0-9-5)
	Entrepreneurship	3(- -)
	Thai Citizen and Global Citizen	3(- -)
	Wellness	2(- -)
	Total	11(- -)

“Intelligent Robotics” Track

Third Year

First Semester		Credits (lecture-Lab-Self study)
01205311	Microprocessor	3(3-0-6)
01205312	Linear Control Systems	3(3-0-6)
01205351	Electromechanical Energy Conversion II	3(3-0-6)
01205352	Electric Power System Analysis I	3(3-0-6)
01205374	Industrial Automation & Control	3(3-0-6)
01205389	Industrial Automation & Control Lab.	1(0-3-2)
01213211	Materials Science for Engineers	3(3-0-6)
	Total	19(- -)

Second Semester		Credits (lecture-Lab-Self study)
01205471	Introduction to Robotics	3(3-0-6)
01205359	Power Electronics	3(3-0-6)
01205371	Process Sensors & Transducers	3(3-0-6)
01205373	Embedded Control Systems	3(3-0-6)
01205375	Machine Vision in Robotics	3(3-0-6)
01205376	Introduction to 3D Design and Prototyping	3(3-0-6)
01205387	Microprocessor Lab.	1(0-3-2)
01205388	Control and Measurement Lab.	1(0-3-2)
	Total	20(- -)

“Intelligent Robotics” Track

Fourth Year

First Semester		Credits (lecture-Lab-Self study)
01205399	Internship	1
01205491	Electrical Engineering Project I	1(0-3-2)
01205497	Seminar	1
01205357	Electric Drives	3(3-0-6)
01205377	Artificial Intelligence in Robotics	3(3-0-6)
01205478	Human Robot Interface	3(3-0-6)
	Aesthetics	3(- -)
	Total	15(- -)

Second Semester		Credits (lecture-Lab-Self study)
01205499	Electrical Engineering Project II	3(0-9-5)
	Entrepreneurship	3(- -)
	Thai Citizen and Global Citizen	3(- -)
	Wellness	2(- -)
01205354	Power System in Buildings	3(3-0-6)
	Total	14(- -)