

**FACULTY OF ENGINEERING
UNIVERSITI PUTRA MALAYSIA**

PROGRAMME	CODE
Bachelor of Aerospace Engineering	EAS
Bachelor of Civil Engineering	ECV
Bachelor of Agricultural And Biosystem Engineering	EAB
Bachelor of Electrical and Electronic Engineering	EEE
Bachelor of Chemical Engineering	ECH
Bachelor of Computer and Communication Systems Engineering	ECC
Bachelor of Mechanical Engineering	EMM
Bachelor of Process and Food Engineering	EPF

Core courses

Course Code	Course name	Credit	Semester
EAS4948	Aerospace Design Project	3	1
ECV4946	Civil Engineering Design Project	3	1
EAB4946	Agricultural and Biosystem Engineering Design Project	3	1
EEE4910	Electrical and Electronic Systems Design Project	3	1
EEE4307	Electrical Power Generation and Utilisation	3	1
ECC4501	Mobile Radio and Satellite Communications	3	1
ECC4946	Computer and Communication Systems Design Project	3	1
EMM4946	Integrated Design	3	1
EPF4001	Production And Operation Management	3	1
EPF4805	Process And Food Plant Design Project	4	1
EPF4804	Process Simulation And Optimization	3	2
EPF4801	Process Equipment Design	3	2
EPF4802	Process And Food Plant Design	3	2

Elective courses

Course Code	Course name	Credit
EAS4201	Computational Fluid Dynamics	3
EAS4202	Fundamentals of Helicopter Flight	3
EAS4301	Flight Dynamics	3
EAS4303	Automatic Flight Control Systems	3
EAS4401	Finite Element Analysis	3
EAS4403	Experimental Stress Analysis	3
EAS4404	Advanced Composite Materials	3
EAS4405	Aeroelasticity	3
EAS4412	Non-Destructive Testing Techniques	3
EAS4501	Air Breathing Engine	3
EAS4502	Solid Propellant Propulsion	3
EAS4702	Design Optimization Technique	3
EAS4703	Aerospace Simulation Modeling	3
EAS4801	Aerospace Software Engineering	3
EAS4803	Spacecraft Dynamics and Control	3
EAS4804	Space Environment and Mission Analysis	3
EAS4805	Inhabited Space Module	3
ECV4211	Advanced Structural Analysis	3
ECV4212	Design of Tall Buildings	3
ECV4213	Bridge Engineering	3
ECV4214	Prestress and Precast Structures	3
ECV4215	Structural Dynamics and Earthquake	3
ECV4311	Design of Foundation	3
ECV4312	Retaining Structures	3
ECV4313	Geo-Environmental Engineering	3
ECV4314	Slope Engineering	3
ECV4315	Tunnel Engineering	3
ECV4411	River Engineering	3
ECV4412	Water and Wastewater Treatment	3
ECV4413	Groundwater Engineering	3
ECV4414	Solid Waste Management Engineering	3
ECV4415	Coastal Engineering	3

ECV4511	Geospatial Engineering	3
ECV4611	Road Transportation System Analysis	3
ECV4612	Pavement Engineering	3
ECV4613	Road Construction and Maintenance	3
ECV4614	Traffic Safety and Management	3
ECV4711	Construction Technology	3
ECV4712	Construction Industry Entrepreneurship	3
EAB4214	Unit Operations	3
EAB4204	Controlled Environment	3
EAB4216	Postharvest System Design	3
EAB4210	Postharvest Engineering	3
EAB4304	Aquacultural Engineering	3
EAB4314	Groundwater	3
EAB4308	Soil Erosion and Conservation	3
EAB4402	Remote Sensing Applications	3
EAB4416	Precision Farming	3
EAB4312	Land Management	3
EAB4412	Intelligent Systems for Agricultural and Biosystems Engineering	3
EAB4414	Geographic Information System Technology	3
EAB4502	Design of Machine Components	3
EAB4504	Off-Road Vehicles Engineering	3
EAB4514	Fluid Power	3
EAB4516	Automation in Agriculture	3
EAB4502	Design of Machine Components	3
EAB4504	Off-Road Vehicles Engineering	3
EEE4305	Power System Protection	3
EEE4306	Electrical Wiring Design /	3
EEE4203	VLSI Systems Design	3
EEE4204	Integrated Circuit Fabrication Technology	3
EEE4205	Microsystems and Sensors	3
EEE4206	Analog Integrated Circuit Design	3
EEE4207	Testing and Reliability Engineering	3
EEE4208	Advanced Semiconductor Devices	3
EEE4308	Industrial Drives	3

EEE4309	Power System Operation and Control	3
EEE4310	High Voltage Engineering	3
EEE4311	Electric Power Quality	3
EEE4403	Control System Design	3
EEE4404	Intelligent Control System	3
EEE4405	Embedded Control System	3
EEE4406	Industrial Process Control	3
EEE4407	Multivariable Control Systems	3
ECC4304	Autonomous Robots	3
ECC4504	Radio Frequency and Microwave Techniques	3
ECH4201	Recovery Processes	3
ECH4202	Bioreactor Engineering Design	3
ECH4203	Fermentation Technology	3
ECH4204	Pharmaceutical Engineering	3
ECH4205	Product Design and Safety	3
ECH4303	Petroleum and Natural Gas Engineering	3
ECH4304	Advanced Fluid Mechanics for Chemical Engineers	3
ECH4305	Process Design and Integration	3
ECH4306	Process and Product Engineering	3
ECH4401	Polymer Engineering	3
ECH4404	Nanomaterials Processing	3
ECH4405	Electrochemical Engineering	3
ECH4406	Materials Analysis	3
ECH4501	Management and Utilisation of Waste	3
ECH4503	Air Pollution Engineering	3
ECH4504	Solid Waste Engineering	3
ECH4505	Green Engineering	3
ECH4506	Renewable Energy	3
ECH4507	Water Engineering	3
ECH4508	Wastewater Engineering	3
ECH4509	Toxic and Hazardous Waste Management	3
ECH4402	Particle Technology	3
EMM4404	Fabrication and Characterization of Composite Materials	3
EPF4608	Palm Oil Processing	3
ECC4207	Web and Database	3

ECC4205	Computer System Administration	3
ECC4208	Advanced Programming	3
ECC4303	Artificial Intelligence	3
ECC4304	Autonomous Robots	3
ECC4403	Imaging System	3
ECC4502	Antenna and Propagation	3
ECC4503	Access Network Technologies	3
ECC4504	Radio Frequency and Microwave Techniques	3
ECC4601	Photonic Devices	3
ECC4701	Core Network Technologies	3
ECC4703	Computer and Network Security	3
ECC4705	Internet Of Things (IoT)	3
ECC4305	System-On-Chip	3
EMM4208	Internal Combustion Engine	3
EMM4214	Heat Transfer	3
EMM4302	Tribology	3
EMM4404	Fabrication and Characterization of Composite Materials /	3
EMM4412	Advanced Engineering Materials	3
EMM4606	Total Quality Control	3
EMM4706	Manufacturing System Design	3
EMM4710	Tool Engineering	3
EMM4212	Building Environment And Services	3
EMM4512	Finite Element Method In Engineering Analysis	3
EMM4608	Industrial Management	3
EMM4718	Human Responses To Vibration	3
EPF4601	Plantation Crops Processing	3
EPF4602	Bio-Material Polymer Technology	3
EPF4607	Biological Process Engineering	3
EPF4605	Pharmaceutical Technology	3
EPF4702	Fabricated Food Technology	3
EPF4703	Food Engineering Systems	3
EPF4704	Food Extrusion Technology	3
EPF4705	Powder Technology	3
EPF4706	Rice Processing	3

EPF4608	Palm Oil Processing	3
EPF4709	Food Plant Cleaning And Sanitation	3
EPF4806	Processing Machinery Dynamics	3
EPF4807	Processing Machinery Elements Design	3
EPF4808	Processing Machinery System And Automation	3