

PEO and PO Feedback

Department of Electrical Engineering

Session 2020/2021

Programme Educational Objectives (PEOs)

PEO1- Professionalism

Graduates will establish themselves as practicing professionals in Electrical Engineering or related fields.

PEO2- Continuous Personal Development

Graduates will engage in lifelong pursuit of knowledge and interdisciplinary learning appropriate for industrial and academic careers.

PEO3- Societal Engagement

Graduates will contribute to sustainable development and the well-being of society.

Programme Outcomes (POs)

1	Engineering Knowledge	Apply knowledge of mathematics, science, engineering fundamentals and electrical engineering specialization to solve complex engineering problems.
2	Problem Analysis	Identify, formulate, research, analyze and reach substantiated conclusions along with recommendations for complex electrical engineering problems, using principles of mathematics, natural science and engineering science.
3	Design/Development of Solutions	Develop solutions for complex electrical engineering problems and systems, components or processes to meet specified needs with appropriate consideration for public health and safety, culture, society and the environment.
4	Investigation	Conduct investigation of complex electrical engineering problem using relevant research methodology including literature review, design of experiments, analysis and interpretation of results to derive scientifically sound conclusions.
5	Modern Tool Usage	Utilize systematic approach to select/create appropriate IT tools, with full understanding of their limitations, to model, simulate and solve complex electrical engineering problems.
6	The Engineer and Society	Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solutions to complex electrical engineering problems.
7	Environment and Sustainability	Understand the impact of professional engineering solutions of complex electrical engineering problems towards society and the environment, and demonstrate knowledge of and the need for sustainable development.
8	Ethics	Apply norms of professional engineering practice ethically
9	Communication	Communicate effectively on complex electrical engineering activities with both engineers and the community at large through discussions, reports and presentations.
10	Individual and Team Work	Function effectively as an individual, and as a team member or leader in a multi-disciplinary environment.
11	Life Long Learning	Recognize the need to undertake life-long learning and possess the capacity to do so independently.
12	Project Management and Finance	Demonstrate knowledge and understanding of engineering and management/finance principles and apply these to one's own work as an individual, team member or leader in a multi-disciplinary environment.

PO to course mapping (Faculty courses)

Code	Course	Credit	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
KIX1001	Engineering Mathematics 1	3	✓	✓										
KIX1002	Engineering Mathematics 2	3	✓	✓										
KIX1003	Thinking and Communication Skills	2									✓	✓	✓	
KIX2001	Integrated Design I	2			✓						✓	✓		
KIX2002	Engineering Economics Analysis	3												✓
KIX2003	Law and Ethics in Engineering	2						✓	✓	✓				
KIX2004	Engineering Project Management	3	✓				✓							✓
KIX3001	Integrated Design II	4				✓			✓	✓	✓	✓		✓
KIX3002	Engineering Entrepreneurship	2						✓	✓	✓				✓
KIX3003	Sustainable Engineering	2					✓	✓	✓					
KIX3004	Python Programming	2			✓		✓						✓	

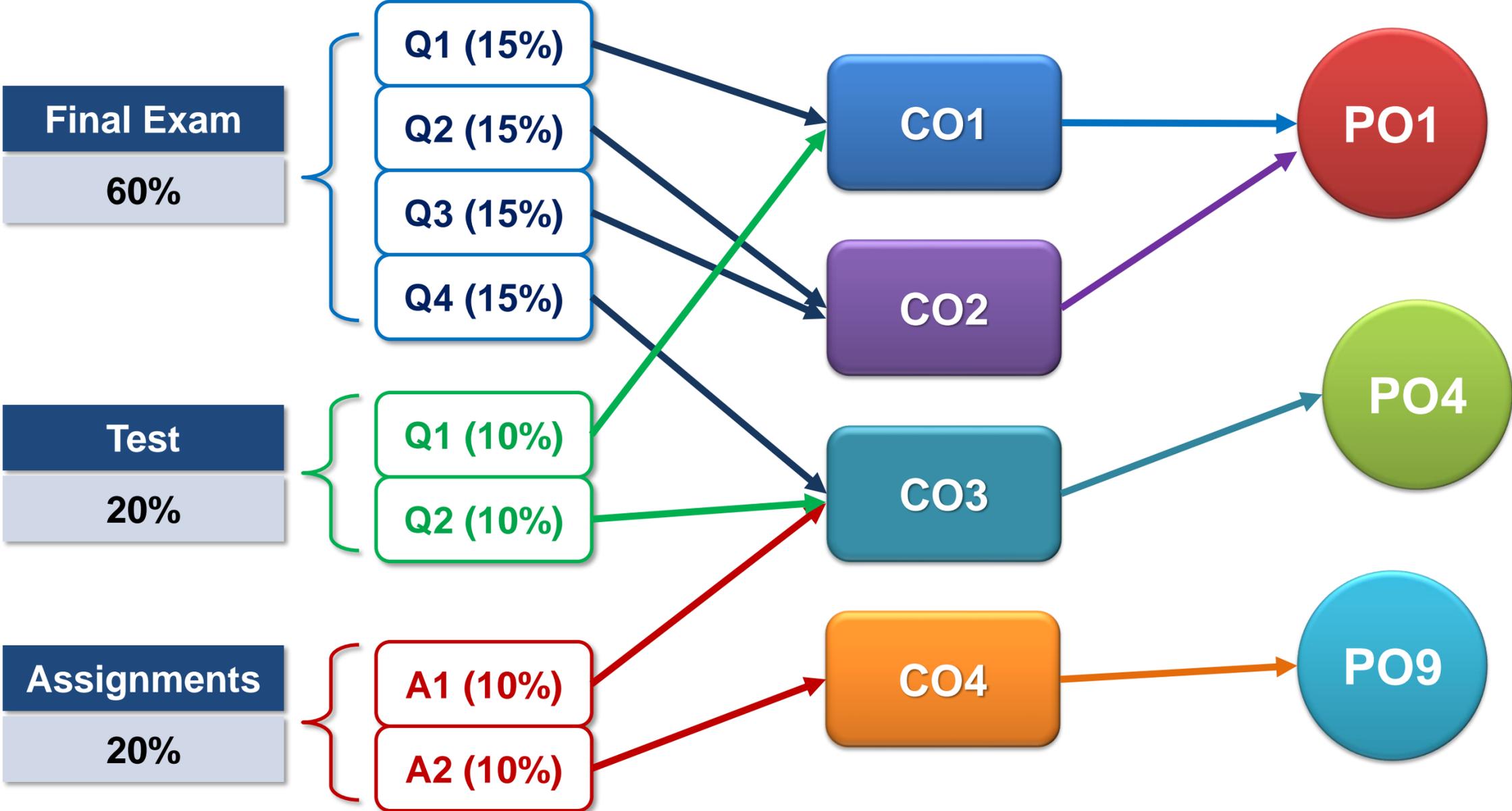
PO to course mapping (Department courses)

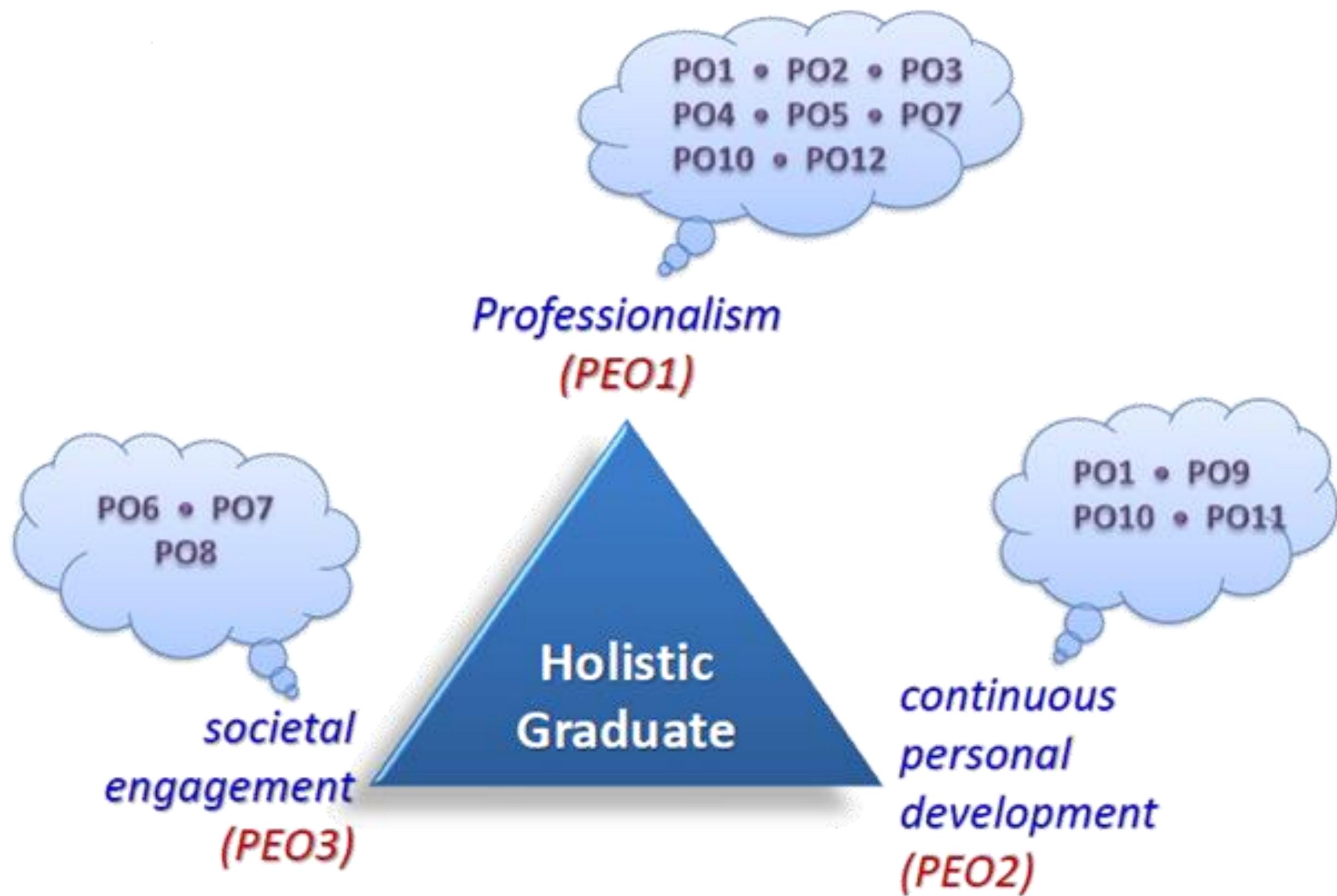
Code	Course	Credit	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
KIE1001	Laboratory 1	1									✓	✓		
KIE1002	Laboratory 2	1									✓	✓		
KIE1003	Digital System	3	✓	✓							✓			
KIE1004	Programming I	3		✓	✓		✓							
KIE1005	Circuit Analysis I	3	✓	✓			✓							
KIE1006	Electronic Physics	3	✓	✓							✓			
KIE1007	Electronic Circuit I	3	✓				✓		✓					
KIE1008	Programming II	3		✓	✓		✓							
KIE2001	Laboratory 3	1									✓	✓		
KIE2002	Laboratory 4	1									✓	✓		
KIE2003	Probability and Random Signal	3	✓	✓					✓					
KIE2004	Electronic Circuit II	3		✓			✓		✓					
KIE2005	Circuit Analysis II	3	✓		✓							✓		
KIE2006	Signal and System	3			✓	✓					✓			
KIE2007	Basic Electromagnetics	3	✓				✓					✓		
KIE2008	Communication System	3	✓	✓									✓	
KIE2009	Machines and Drives	3	✓	✓							✓			
KIE3001	Laboratory 5	1									✓	✓		
KIE3002	Laboratory 6	1									✓	✓		
KIE3003	Industrial Training	5			✓			✓	✓	✓	✓	✓	✓	
KIE3004	Applied Electromagnetics	3	✓	✓		✓								
KIE3005	Numerical Analysis	3		✓			✓						✓	
KIE3006	Control System	3		✓		✓						✓		
KIE3007	Digital Signal Processing	3			✓		✓						✓	
KIE3008	Power Electronics	3			✓	✓			✓					
KIE3009	Energy Conversion and High Voltage Transmission	3	✓		✓		✓							
KIE3010	Instrumentation	3	✓		✓		✓							

PO to course mapping (Department courses)

Code	Course	Credit	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
KIE4001	Laboratory 7	1									✓	✓		
KIE4002	Final Year Project	6			✓	✓	✓		✓		✓		✓	✓
KIE4004	Power System	3			✓		✓		✓					
KIE4005	Power Quality	3			✓		✓		✓					
KIE4010	Electrical Energy Conversion Technologies	2			✓	✓	✓							
KIE4011	Renewable Energy Technologies	2			✓	✓			✓					
KIE4012	Nanotechnology for Sustainable Energy	2				✓	✓		✓					
KIE4013	High Voltage Engineering	2			✓		✓		✓					
KIE4014	Wireless Communications	2	✓	✓		✓								
KIE4015	Optical Communications	2			✓	✓			✓					
KIE4016	Antenna and Propagation	2		✓	✓				✓					
KIE4017	Optical Waveguides	2			✓	✓	✓							
KIE4018	VLSI Design	2			✓	✓			✓					
KIE4019	Analog VLSI Circuit Design	2			✓	✓	✓							
KIE4020	Microwave Electronics and Systems	2			✓	✓			✓					
KIE4021	Analog Electronics Design	2			✓	✓			✓					
KIE4022	Embedded Systems	2			✓	✓	✓							
KIE4023	Digital Control System	2	✓	✓			✓							
KIE4024	Optimization	2			✓		✓		✓					
KIE4025	Pattern Recognition	2			✓	✓	✓							
KIE4026	Data Communication Networks	2			✓	✓	✓							
KIE4027	Power Utilization	2		✓	✓				✓					

PO attainment calculation





How to access your OBE report card?

1. Go to the link: <https://bit.ly/2YttAlv>
2. To login, use the office 365 email account: siswamail-username@siswa365.um.edu.my. The password is the same as your siswamail.
Note: If you are unable to sign in to your office 365 account, you can request helpdesk to fix the problem.
3. Once you have signed in, you need to give permission to the web app to access the SharePoint files (one time only).
4. If your browser settings block 3rd party cookies, you may need to reconfirm sign in multiple times.

Example 1

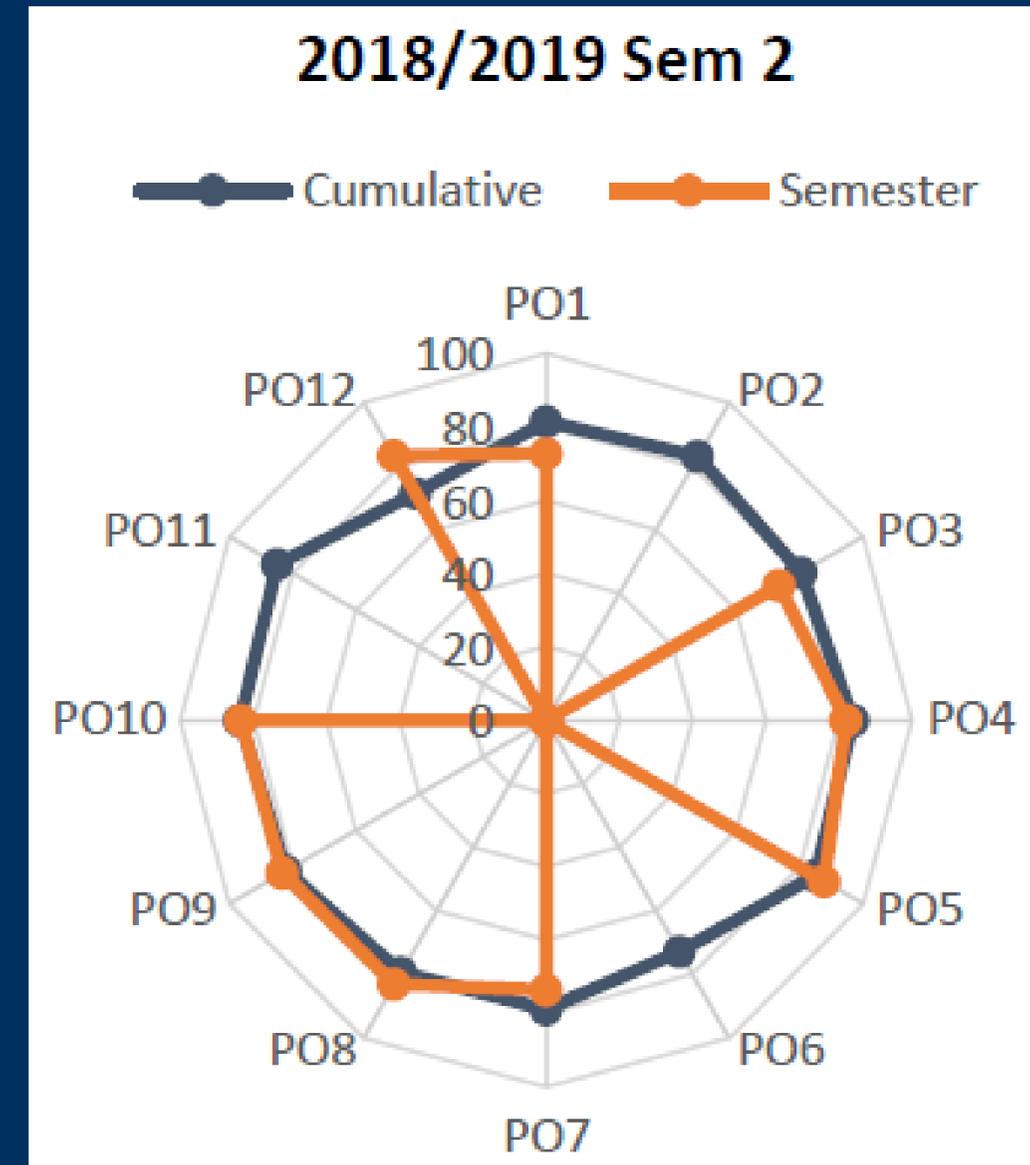
Final-Year Student 1

- Performed very good in most of the POs except PO6 (The Engineer and Society) and PO12 (Project Management and Finance).
- Can work a bit harder to get an A for PO7 (Environment and Sustainability) and improve the grade for PO12.
- Not possible to improve for PO6 and PO8 (Ethics).

Potential subjects to focus on:

KIE4002 Final Year Project (PO7 & PO12), KIE4004 Power

System , KIE4005 Power Quality



PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
81	83	80	84	85	73	79	79	82	84	85	71

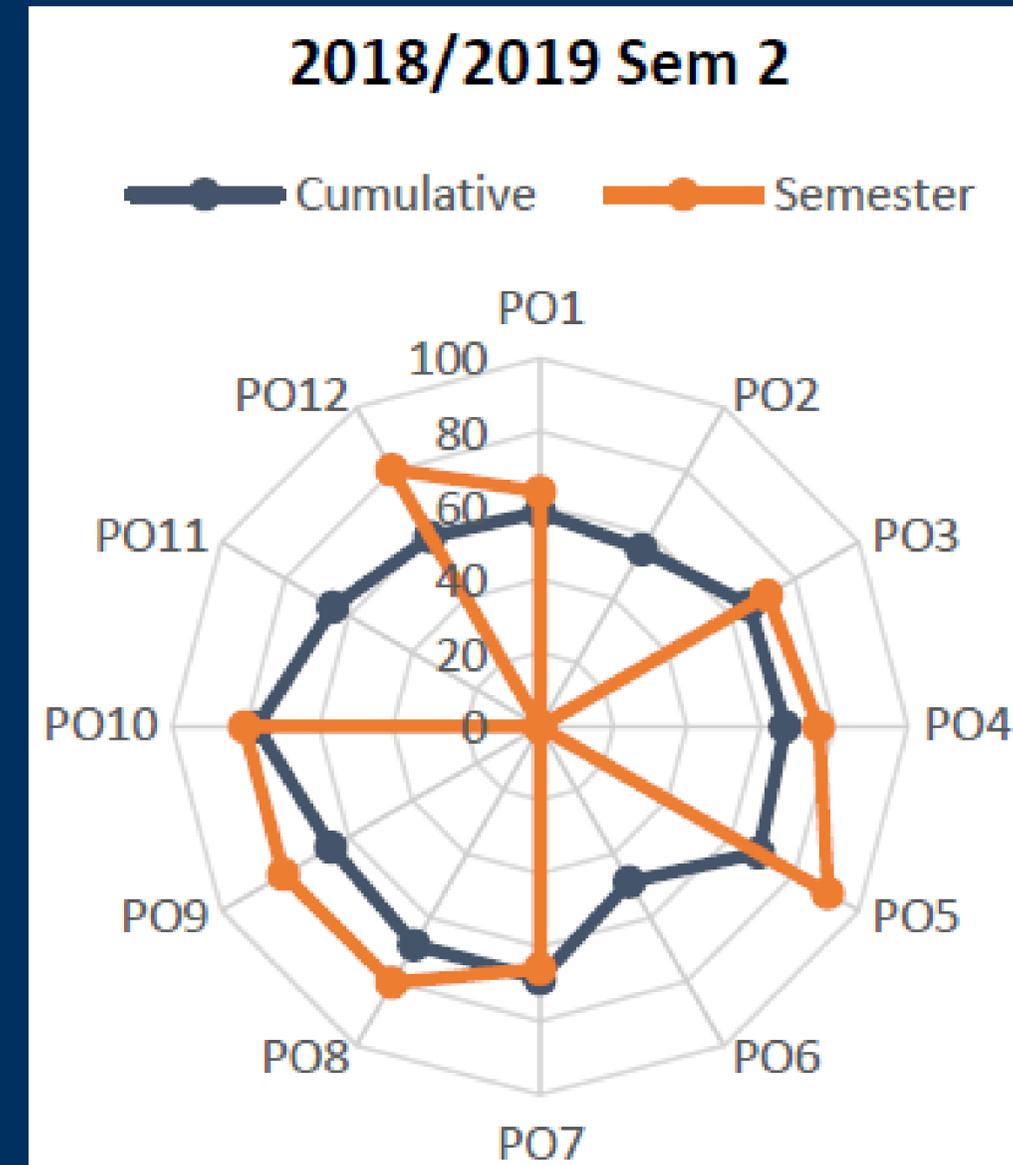
Example 2

Final-Year Student 2

- Performed average in most of the POs and failed PO6 (The Engineer and Society).
- Can work harder to improve the grade for PO1 (Engineering Knowledge), PO5 (Modern Tool Usage), PO7 (Environment and Sustainability) and PO12 (Project Management and Finance).
- Not possible to improve for PO6 and PO8 (Ethics).

Potential subjects to focus on:

KIE4014 Wireless Communications / KIE4023 Digital Control System (PO1 & PO2), KIE4002 Final Year Project (PO7 & PO12)



PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
58	55	66	67	69	49	69	68	66	77	65	59

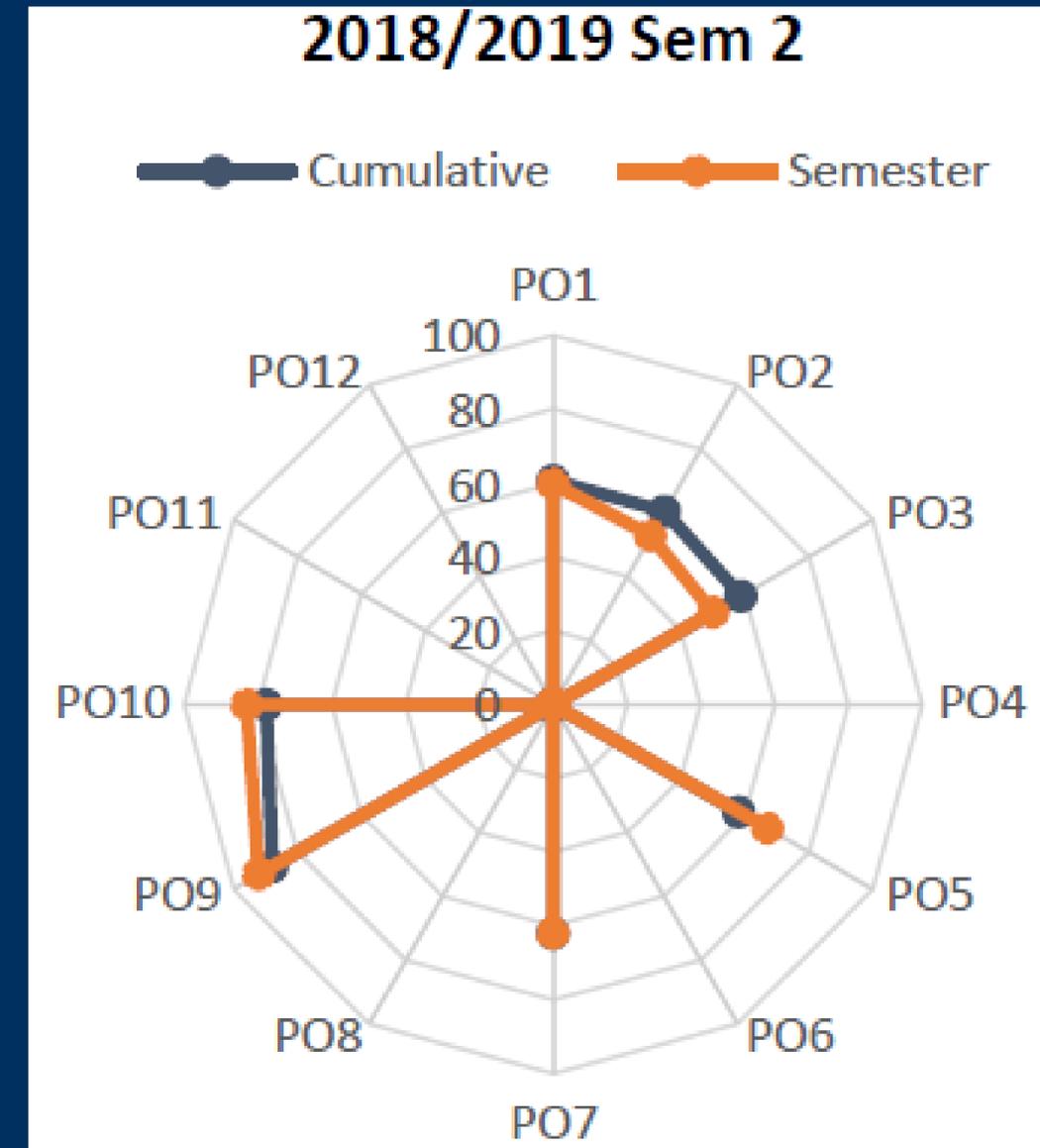
Example 3

Second-Year Student 1

- Not all POs have marks because many subjects have not been taken.
- There is a decrease in attainment of PO2 (Problem Analysis) & PO3 (Design/Development of Solutions) and improvement in PO5 (Modern Tool Usage) & PO10 (Individual and Team Work).

Potential subjects to focus on:

Many



PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
61	60	59	0	58	0	62	0	88	78	0	0

Thank you!