

Department of Computer Science and Engineering (CSE)

The Vision and Mission of the Department of Computer Science and Engineering, University of Asia Pacific are stated below:

Vision:

The department of Computer Science and Engineering (CSE), University of Asia Pacific (UAP) is striving for a pioneer role in ICT through excellence in education, research and development towards preparing graduates as a global leader with quality education, innovative ideas, extra-curricular activities and collaboration between industry and academia.

Mission:

Department of CSE believes in the pursuit of excellence by developing students in creating, applying and imparting knowledge of ICT. Educational curriculum, research and collaboration between academia and industry are given highest priority. Department of CSE, UAP aspires to produce graduates capable of taking leadership in the field of their best interest. We nurtures graduates in

- Understanding the basic principles of computational, electric and modern technologies
- Promoting creativity by applying their theoretical knowledge in practical problem solving
- Enabling them to communicate ideas clearly and concisely both written and verbally
- Creating awareness about environment, social context, and economic development within the ethical boundaries
- Engaging for further research or professional involvement

Program Educational Objectives (PEOs)* of the Department of Computer Science and Engineering (CSE):

PEO1: Possess theoretical and practical knowledge of Computer Science and Engineering to establish successful computing or engineering careers in industry, government, and academia that will advance the economic development of the country, the region, and beyond.

- PEO2:** Enhance skills and creativity, and embrace new computing technologies through self-directed professional development and post-graduate education.
- PEO3:** Apply the ethical and social aspects of modern computing technology to the design, development, and usage of computing artifacts.
- PEO4:** Be committed to active participation in life-long learning and socio-economic development through research and development of Computer Science and Engineering to adapt to an ever-changing real-life environment.

* <https://uap-bd.edu/iqac/doc/cse.pdf> [Published on February 18, 2018]

Program Outcomes (POs):

The course outcomes of this program have aligned with the POs set by the BAETE as follows:

- a. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- b. **Problem analysis:** Identify, formulate, research and analyze complex engineering problems and reach substantiated conclusions using the principles of mathematics, the natural sciences and the engineering sciences.
- c. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety and of cultural, societal and environmental concerns.
- d. **Investigation:** Conduct investigations of complex problems, considering experimental design, data analysis and interpretation and information synthesis to provide valid conclusions.
- e. **Modern tool usage:** Create, select and apply appropriate techniques, resources and modern engineering and IT tools, including prediction and modeling, to complex engineering activities with an understanding of their limitations.
- f. **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.

- g. **Environment and sustainability:** Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of and need for sustainable development.
- h. **Ethics:** Apply ethical principles and commit to the professional ethics, responsibilities and the norms of the engineering practice.
- i. **Individual work and teamwork:** Function effectively as an individual and as a member or leader of diverse teams and in multidisciplinary settings.
- j. **Communication:** Communicate effectively about complex engineering activities with the engineering community and with society at large. Be able to comprehend and write effective reports, design documentation, make effective presentations and give and receive clear instructions.
- k. **Project management and finance:** Demonstrate knowledge and understanding of engineering and management principles and apply these to one's work as a team member or a leader to manage projects in multidisciplinary environments.
- l. **Life-long learning:** Recognize the need for and have the preparation and ability to engage in independent, life-long learning in the broadest context of technological change.

Mapping between the Program Educational Objectives (PEOs) and the Mission of the Department of Computer Science and Engineering (CSE):

Program Educational Objectives (PEOs)	Mission of CSE Department				
	M1: Understanding the basic principles of computational , electric and modern technologies	M2: Promoting creativity by applying their theoretical knowledge in practical problem solving	M3: Enabling them to communicate ideas clearly and concisely both written and verbally	M4: Creating awareness about environment, social context, and economic development within the ethical boundaries	M5: Engaging for further research or professional involvement
PEO1: Possess theoretical and practical knowledge of Computer Science and Engineering to establish successful computing or engineering careers in industry, government, and academia that will advance the economic development of the country, the region, and beyond.	✓				
PEO2: Enhance skills and creativity, and embrace new computing technologies through self-directed professional development and post-graduate education.		✓	✓		✓
PEO3: Apply the ethical and social aspects of modern computing technology to the design, development, and usage of computing artifacts.				✓	
PEO4: Be committed to active participation in life-					✓

long learning and socio-economic development through research and development of Computer Science and Engineering to adapt to an ever-changing real-life environment.					
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Mapping between the Program Outcomes (POs) and Program Educational Objectives (PEOs) of the Department of Computer Science and Engineering (CSE):

Program Outcomes (POs)	Program Educational Objectives (PEOs)			
	PEO 1	PEO 2	PEO 3	PEO 4
PO1: Engineering Knowledge	Y	Y	Y	Y
PO2: Problem Analysis	Y	N	N	Y
PO3: Design/Development of Solutions	Y	Y	N	Y
PO4: Investigation	Y	N	Y	N
PO5: Modern Tool Usage	Y	Y	N	N
PO6: The Engineer and Society	Y	N	Y	Y
PO7: Environment and Sustainability	Y	N	N	Y
PO8: Ethics	Y	N	Y	Y
PO9: Individual and Teamwork	Y	Y	N	N
PO10: Communication	Y	Y	N	Y
PO11: Project Management and Finance	Y	Y	N	Y
PO12: Lifelong Learning	Y	Y	Y	Y