CO-PO Mapping

Subject	CO Code	CO Text	Cognition	PO Code	PO Text
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO3	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 the public health and safety, and the cultural, societal, and environmental considerations.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO5	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 the limitations.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO9	Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to oneâ€™s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PO12	Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PSO1	
Computer Graphics	CSC305.1	Describe the basic concepts of Computer Graphics.	Understand	PSO2	
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO3	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 the public health and safety, and the cultural, societal, and environmental considerations.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO5	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 the limitations.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO9	Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to oneâ€™s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PO12	Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PSO1	
Computer Graphics	CSC305.2	Demonstrate various algorithms for basic graphics primitives.	Apply	PSO2	
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO3	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 the public health and safety, and the cultural, societal, and environmental considerations.

Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO5	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 the limitations.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO9	Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to oneâ€™s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PO12	Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PSO1	
Computer Graphics	CSC305.3	Apply 2-D geometric transformations on graphical objects.	Apply	PSO2	

Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO3	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 the public health and safety, and the cultural, societal, and environmental considerations.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO5	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 the limitations.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO9	Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to oneâ€™s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PO12	Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PSO1	
Computer Graphics	CSC305.4	Use various Clipping algorithms on graphical objects.	Apply	PSO2	
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO3	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 the public health and safety, and the cultural, societal, and environmental considerations.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO5	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 the limitations.

Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO9	Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to oneâ€™s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PO12	Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PSO1	
Computer Graphics	CSC305.5	Explore 3-D geometric transformations, curve representation techniques and projections methods.	Apply	PSO2	
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO3	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 the public health and safety, and the cultural, societal, and environmental considerations.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO5	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 the limitations.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO9	Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to oneâ€™s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PO12	Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PSO1	
Computer Graphics	CSC305.6	Explain visible surface detection techniques and Animation.	Understand	PSO2	