

# **Bachelors In Science (Computer Science)**

## **Semester-V**

Course Code	Course Name	COs
USCS501 & USCSP501	Artificial Intelligence - Theory & Artificial Intelligence - Practical	1. Demonstrate knowledge of the building blocks of AI as presented in terms of intelligent agents.  2. Analyze and formalize the problem as a state space, graph, design heuristics and select amongst different search or game based techniques to solve them.  3. Develop intelligent algorithms for constraint satisfaction problems and also design intelligent systems for Game Playing.  4. To impart basic proficiency in representing difficult real life problems in a state space representation so as to solve them using AI techniques like searching and game playing.  5. To create an understanding of the basic issues of knowledge representation and Logic and blind and heuristic search, as well as an understanding of other topics such as minimal, resolution, etc. that play an important role in AI programs



USCS503 & USCSP501	Software Testing And Quality Assurance- Theory & Software Testing And Quality Assurance- Practical	<ol> <li>Students will be able to</li> <li>Understand various software testing methods and strategies.</li> <li>Understand a variety of software metrics, and identify defects and manage those defects for improvement in quality for given software.</li> <li>Design SQA activities, SQA strategy, formal technical review report for software quality control and assurance.</li> </ol>
USCS504 & USCSP502	Information And Network Security- Theory & Information And Network Security- Practical	Students will be able to  1. Understand the principles and practices of cryptographic techniques.  2. Understand a variety of generic security threats and vulnerabilities, and identify & analyze particular security problems for a given application.  3. Understand various protocols for network security to protect against the threats in a network.
USCS506 & USCSP502	Web Services- Theory & Web Services- Practical	Students will be able to  1. Apply servlets, sessions, cookies, beans and Java Server Pages to design server-side applications.  2. Design and develop JPA applications and build hibernate applications for real problems
USCS507 & USCSP504	Game Programming - Theory & Game	Students will be able to



Programming - Practical	<ol> <li>Study Graphics and gaming concepts with present working style of developers where everything remains on the internet and they need to review it, understand it.</li> <li>Be a part of the community and learn.</li> </ol>
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## **Semester VI**

Course Code	Course Name	COs
USCS602 & USCSP601	Cloud Computing - Theory & Cloud Computing- Practical	Students will be able to  1. Articulate the main concepts, key technologies, strengths, and limitations of cloud computing and the possible applications for state-of-the-art cloud computing using open source technology.  2. Identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.  3. Explain the core issues of cloud computing such as security, privacy, and interoperability.
USCS603 &	Cyber Forensics-	Students will be able to



USCSP601	Theory & Cyber Forensics- Practical	<ol> <li>Plan and prepare for all stages of an investigation - detection, initial response and management interaction,</li> <li>Investigate various media to collect evidence, report them in a way that would be acceptable in the court of law.</li> </ol>
USCS605 & USCSP602	Digital Image Processing - Theory & Digital Image Processing - Practical	Students will be able to  1. Review the fundamental concepts of a digital image processing system.  2. Analyze the images in the frequency domain using various transforms.  3. Evaluate the techniques for image enhancement and image segmentation.  4. Apply various compression techniques.  5. They will be familiar with basic image processing techniques for solving real problems.
USCS606 & USCSP602	Data Science - Theory & Data Science Practical	<ul><li>Students will be able to</li><li>1. Understand &amp; comprehend the problem;</li><li>2. Define suitable statistical methods to be adopted.</li></ul>
USCS607 &	Ethical Hacking -	Students will be able to



USCSP04	Theory & Ethical Hacking - Practical	<ol> <li>Know to identify security vulnerabilities and weaknesses in the target applications.</li> <li>Test and exploit systems using various tools and</li> </ol>
		understand the impact of hacking in real time machines.