

## **Master of Science in Computer Science Engineering (MSCSE)**

### **Core Courses (Total 8 courses = 32 credits)**

<b>Course Code</b>	<b>Course Title</b>	<b>Credits</b>
MSCSE600	Advanced Computer Science Engineering	4
MSCSE601	Software Engineering & Design Patterns	4
MSCSE602	Data Structures and Algorithm Optimization	4
MSCSE603	Cloud Computing & Distributed Systems	4
MSCSE604	Cybersecurity & Ethical Hacking	4
MSCSE605	Artificial Intelligence & Deep Learning	4
MSCSE606	Big Data Analytics & Data Science	4
MSCSE607	Business Strategy for Tech Leaders	4

### **Specialization Courses: Robotics & Drone Technology Track (6 courses = 24 credits)**

<b>Course Code</b>	<b>Course Title</b>	<b>Credits</b>
MSCSE620	Fundamentals of Robotics & Autonomous Systems	4
MSCSE625	Drone Technology & UAV Systems	4
MSCSE630	AI & Machine Learning for Robotics	4
MSCSE635	Embedded Systems & IoT for Smart Machines	4
MSCSE640	Autonomous Vehicle Navigation & Control	4
MSCSE645	Swarm Robotics & Multi-Agent Systems	4

### **Capstone Project (1 course = 4 credits)**

<b>Course Code</b>	<b>Course Title</b>	<b>Credits</b>
MSCSE710	Applied Robotics & AI Capstone Project	4

### **Program Distribution:**

#### **Quarter 1**

- MSCSE600 – Advanced Computer Science Engineering
  - MSCSE601 – Software Engineering & Design Patterns
- Total: 8 credits**

#### **Quarter 2**

- MSCSE602 – Data Structures and Algorithm Optimization

- MSCSE603 – Cloud Computing & Distributed Systems  
**Total: 8 credits**

### **Quarter 3**

- MSCSE604 – Cybersecurity & Ethical Hacking
- MSCSE605 – Artificial Intelligence & Deep Learning  
**Total: 8 credits**

### **Quarter 4**

- MSCSE606 – Big Data Analytics & Data Science
- MSCSE607 – Business Strategy for Tech Leaders  
**Total: 8 credits**

### **Quarter 5**

- MSCSE620 – Fundamentals of Robotics & Autonomous Systems
- MSCSE625 – Drone Technology & UAV Systems  
**Total: 8 credits**

### **Quarter 6**

- MSCSE630 – AI & Machine Learning for Robotics
- MSCSE635 – Embedded Systems & IoT for Smart Machines  
**Total: 8 credits**

### **Quarter 7**

- MSCSE640 – Autonomous Vehicle Navigation & Control
- MSCSE645 – Swarm Robotics & Multi-Agent Systems  
**Total: 8 credits**

### **Quarter 8**

- MSCSE710 – Applied Robotics & AI Capstone Project
- Optional Leadership Seminar or Research Prep\*  
**Total: 8 credits**