# DESIGN YOUR DEGREE

THE VT-MIT DEGREE REQUIRES A MINIMUM OF 11 COURSES (33 CREDIT HOURS): FOUR (4) CORES COURSES AND SEVEN (7) ELECTIVES. YOU MAY TAKE MORE THAN FOUR CORE COURSES IF YOU WISH TO SUBSTITUTE A CORE COURSE FOR AN ELECTIVE. VIEW THE ELECTIVES BY TOPIC AREAS OR GRADUATE CERTIFICATES DOCUMENT FOR SUGGESTED GROUPINGS.

<table>
<thead>
<tr>
<th>COURSE NUMBER</th>
<th>COURSE TITLE</th>
<th>REQUIRED PREREQUISITE</th>
<th>SUGGESTED PREREQUISITE</th>
<th>TERMS AVAILABLE</th>
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</thead>
<tbody>
<tr>
<td>ACIS 5504</td>
<td>Information Systems Design &amp; Database Concepts</td>
<td></td>
<td></td>
<td>FA, SP</td>
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<tr>
<td>BIT 5594</td>
<td>Web-Based Applications &amp; Electronic Commerce</td>
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<td>FA, SU</td>
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<tr>
<td>CS 5044</td>
<td>Object-Oriented Programming with Java</td>
<td>Java, C, C++ or C#</td>
<td></td>
<td>FA, SP, SU</td>
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<tr>
<td>CS 5704</td>
<td>Software Engineering</td>
<td>CS 5044</td>
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<td>FA</td>
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<tr>
<td>ECE 5484</td>
<td>Fundamentals of Computer Systems</td>
<td>Java, C, C++ or C#</td>
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<td>FA, SP, SU</td>
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<tr>
<td>MGT 5804</td>
<td>Strategic Leadership in Technology-Based Organizations</td>
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<td>FA, SP</td>
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### CORE COURSES

- ACIS 5524: Advanced Database Management Systems
- ACIS 5534: Information Systems Analysis and Design
- ACIS 5524: Cybersecurity Governance and Risk Management
- BIT 5114: Crime and Conflict in Cyberspace
- BIT 5124: Cyber Law and Policy for Information Technology
- BIT 5134: Cybersecurity Program Design & Operations
- BIT 5474: Computer-Based Decision Support Systems
- BIT 5484: Cognitive Computing for Smart Service Systems
- BIT 5524: Introduction to Business Intelligence & Analytics
- BIT 5534: Applied Business Intelligence & Analytics
- BIT 5564: Healthcare Information Technology
- BIT 5574: Healthcare Data Management
- BIT 5984: SS: Leading Technology Transformation: Practical Implementation
- BIT 5984: SS: Introduction to Generative AI in Business

### ELECTIVES

- CS 5244: Web Application Development
- CS 5254: Mobile Application Development
- CS 5644: Machine Learning with Big Data
- CS 5664: Social Media Analytics
- CS 5744: Software Design & Quality
- ECE 5480: Cybersecurity and the Internet of Things
- ECE 5485: Networks and Protocols I
- ECE 5484: Innovative Pathways in AI & Machine Learning
- ECE 5585: IT Security and Trust I
- ECE 5586: IT Security and Trust II
- ECE 5984: SS: Data Engineering Project
- ECE 5984: SS: Next Generation Mobile Networks
- ECE 5984: SS: Quantum Information Technologies
- MGT 5524: Technology-Based Entrepreneurship

**NOTE:**

BIT 5114 & BIT 5134 offered alternate summers