MASTER OF INFORMATION TECHNOLOGY
VIRGINIA TECH.

DESIGN YOUR DEGREE
PLAN OF STUDY WORKSHEET

DEGREE REQUIREMENTS 4 CORE COURSES + 7 ELECTIVE COURSES = 11 COURSES TOTAL (33 CREDIT HOURS)

PLAN OF STUDY

THE ORANGE SAMPLE PLAN OF STUDY FOLLOWS A COMMON COURSE LOAD AND TIMELINE, ALLOWING YOU TO COMPLETE YOUR DEGREE IN 2.5 YEARS WITH A SHORT BREAK EACH SUMMER.

YOU CAN ACCELERATE OR EXTEND YOUR PLAN OF STUDY AS DESIRED, BUT *YOU MUST FINISH YOUR DEGREE WITHIN FIVE YEARS OF YOUR STARTING TERM*.

	2023/24	2024/25	2025/26
FALL	CORE CORE	ELECTIVE ELECTIVE	ELECTIVE
SPRING	CORE ELECTIVE	ELECTIVE ELECTIVE	
SUMMER	CORE	ELECTIVE	

USING THIS WORKSHEET

USE THE COURSE LISTING, ELECTIVES BY TOPIC AREA, AND GRADUATE CERTIFICATES DOCUMENTS TO FILL IN THE BLANK PLAN OF STUDY BELOW. BE SURE TO ADHERE TO PREREQUISITES AND THE TERMS THAT COURSES ARE OFFERED.

CONTACT OUR VT-MIT PROGRAM OFFICE AT VTMIT@VT.EDU FOR ASSISTANCE OR TO CONFIRM YOUR PLAN OF STUDY IS VALID.

FOR OFFICE USE ONLY

STUDENT NAME:

STUDENT ID (LAST 4 DIGITS):

DATE SUBMITTED:

DATE REVIEWED:

MASTER OF INFORMATION TECHNOLOGY
VIRGINIA TECH

DESIGN YOUR DEGREE
COURSE LISTING

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.

FA = FALL SP = SPRING SU = SUMMER

CORE

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

ELECTIVES

ACIS 5524	Advanced Database Management Systems	ACIS 5504		FA, SP
ACIS 5534	Information Systems Analysis and Design	ACIS 5504		FA
ACIS 5624	Cybersecurity Governance and Risk Management		BIT 5594 or MGT 5804	SP
BIT 5114	Crime and Conflict in Cyberspace		BIT 5594 or MGT 5804	SP, SU
BIT 5124	Cyber Law and Policy for Information Technology		BIT 5594 or MGT 5804	FA
BIT 5134	Cybersecurity Program Design & Operations		BIT 5594 or MGT 5804	FA, SU
BIT 5474	Computer-Based Decision Support Systems		BIT 5594	FA
BIT 5484	Cognitive Computing for Smart Service Systems	BIT 5474		SP
BIT 5524	Introduction to Business Intelligence & Analytics		BIT 5594 or MGT 5804	FA
BIT 5534	Applied Business Intelligence & Analytics	BIT 5524		SP
BIT 5564	Healthcare Information Technology		ACIS 5504	SU
BIT 5574	Healthcare Data Management		ACIS 5504	SU
BIT 5984	SS: Leading Technology Transformation: Pratical Implementation			SP
BIT 5984	SS: Introduction to Generative AI in Business			SP
CS 5244	Web Application Development	CS 5044		FA, SU
CS 5254	Mobile Application Development	CS 5044		SP
CS 5644	Machine Learning with Big Data	CS 5044		FA
CS 5664	Social Media Analytics	CS 5044		SP
CS 5744	Software Design & Quality	CS 5704		FA
ECE 5480	Cybersecurity and the Internet of Things	ECE 5484 or CS 5044		FA, SP, SU
ECE 5485	Networks and Protocols l	ECE 5484		FA
ECE 5494	Innovative Pathways in AI & Machine Learning	ECE 5484 or MGT 5804		SP
ECE 5585	IT Security and Trust l	ECE 5484		FA
ECE 5586	IT Security and Trust ll	ECE 5585		SP
ECE 5984	SS: Data Engineering Project			FA
ECE 5984	SS: Next Generation Mobile Networks	ECE 5484 or CS 5044		SP
ECE 5984	SS: Quantum Information Technologies	ECE 5484		SP
MGT 5824	Technology-Based Entrepreneurship	MGT 5804		SU

NOTE:

BIT 5114 & BIT 5134 offered alternate summers

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ELECTIVES BY TOPIC AREA

THE VT-MIT DEGREE REQUIRES A MINIMUM OF 11 COURSES (33 CREDIT HOURS): FOUR (4) CORES COURSES AND SEVEN (7) ELECTIVES. CORES AND ELECTIVES MAY BE CHOSEN FROM THE LIST BELOW. THE TOPIC AREAS ARE MEANT TO HELP GUIDE YOUR COURSE SELECTIONS, SO YOU MAY MIX AND MATCH ACROSS THE GROUPINGS AS IT FITS YOURS INTERESTS.

FA = FALL SP = SPRING SU = SUMMER

COURSE NUMBER	COURSE TITLE	REQUIRED PREREQUISITE	SUGGESTED PREREQUISITE	TERMS AVAILABLE
ANALYTICS & BUSINESS INTELLIGENCE				
ACIS 5504	Information Systems Design & Database Concepts (CORE)			FA, SP
ACIS 5524	Advanced Database Management Systems	ACIS 5504		FA, SP
BIT 5524	Introduction to Business Intelligence & Analytics		BIT 5594 or MGT 5804	FA
BIT 5534	Applied Business Intelligence & Analytics	BIT 5524		SP
BIG DATA				
CS 5044	Object-Oriented Programming with Java (CORE)	Java, C, C++, or C#		FA, SP, SU
CS 5644	Machine Learning with Big Data	CS 5044		FA
CS 5664	Social Media Analytics	CS 5044		SP
BUSINESS INFORMATION SYSTEMS				
ACIS 5504	Information Systems Design & Database Concepts (CORE)			FA, SP
ACIS 5524	Advanced Database Management Systems	ACIS 5504		FA, SP
BIT 5474	Computer-Based Decision Support Systems		BIT 5594	FA
CYBERSECURITY TECHNOLOGIES				
ECE 5480	Cybersecurity and the Internet of Things	ECE 5484 or CS 5044		FA, SP, SU
ECE 5484	Fundamentals of Computer Systems (CORE)	Java, C, C++, or C#		FA, SP, SU
ECE 5585	IT Security and Trust l	ECE 5484		FA
ECE 5586	IT Security and Trust ll	ECE 5585		SP
CYBERSECURITY MANAGEMENT				
MGT 5804	Strategic Leadership in Technology-Based Organizations (CORE)			FA, SP
BIT 5134	Cybersecurity Program Design & Operations		BIT 5594 or MGT 5804	FA, (alt) SU
ACIS 5624	Cybersecurity Governance and Risk Management		BIT 5594 or MGT 5804	SP
CYBERSECURITY POLICY				
BIT 5594	Web-Based Applications & Electronic Commerce (CORE)			FA, SU
BIT 5114	Crime and Conflict in Cyberspace		BIT 5594 or MGT 5804	SP, (alt) SU
BIT 5124	Cyber Law and Policy for Information Technology		BIT 5594 or MGT 5804	FA
HEALTH INFORMATION TECHNOLOGY				
ACIS 5504	Information Systems Design & Database Concepts (CORE)			FA, SP
BIT 5564	Healthcare Information Technology		ACIS 5504	SU
BIT 5574	Healthcare Data Management		ACIS 5504	SU
INNOVATION/ENTREPRENEURSHIP/ENGINEERING IN AI/ML				
BIT 5984	Introduction to Generative AI in Business			SP
BIT 5984	Leading Technology Transformation: Pratical Implementation			SP
ECE 5984	Data Engineering Project			FA
ECE 5494	Innovative Pathways in AI & Machine Learning	ECE 5484 or MGT 5804		SP
ECE 5984	Quantum Information Technologies	ECE 5484		SP
MGT 5804	Strategic Leadership in Technology-Based Organizations (CORE)			FA, SP
MGT 5824	Technology-Based Entrepreneurship	MGT 5804		SU
NETWORKING				
ECE 5484	Fundamentals of Computer Systems (CORE)	Java, C, C++, or C#		FA, SP, SU
ECE 5485	Networks and Protocols	ECE 5484		FA
ECE 5984	Next Generation Mobile Networks	ECE 5484 or CS 5044		SP
SOFTWARE DEVELOPMENT				
CS 5044	Object-Oriented Programming with Java (CORE)	Java, C, C++, or C#		FA, SP, SU
CS 5244	Web Application Development	CS 5044		FA, SU
CS 5254	Mobile Application Development	CS 5044		SP
CS 5704	Software Engineering (CORE)	CS 5044		FA, SP
CS 5744	Software Design & Quality	CS 5704		FA

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DESIGN YOUR DEGREE
GRADUATE CERTIFICATES

USE THE COURSE SELECTIONS BELOW TO SPECIALIZE YOUR PLAN OF STUDY AND EARN UP TO TWO GRADUATE CERTIFICATES.

FA = FALL SP= SPRING SU = SUMMER *PREREQUISITE NOT REQUIRED FOR CERTIFICATE-ONLY STUDENTS

COURSE NUMBER	COURSE TITLE	REQUIRED PREREQUISITE	SUGGESTED PREREQUISITE	TERMS AVAILABLE
BIG DATA				
CS 5044	Object-Oriented Programming with Java (CORE)	Java, C, C++ or C#		FA, SP, SU
CS 5644	Machine Learning with Big Data	CS 5044		FA
CS 5664	Social Media Analytics	CS 5044		SP
BUSINESS DATA ANALYTICS				
ACIS 5524	Advanced Database Management Systems	ACIS 5504*		FA, SP
BIT 5524	Introduction to Business Intelligence & Analytics		BIT 5594 or MGT 5804	FA
BIT 5534	Applied Business Intelligence & Analytics	BIT 5524		SP
CYBERSECURITY MANAGEMENT				
ACIS 5624	Cybersecurity Governance and Risk Management		BIT 5594 or MGT 5804	SP
BIT 5134	Cybersecurity Program Design & Operations		BIT 5594 or MGT 5804	FA, SU
MGT 5804	Strategic Leadership in Technology-Based Organizations (CORE)			FA, SP
CYBERSECURITY POLICY				
BIT 5114	Crime and Conflict in Cyberspace		BIT 5594 or MGT 5804	SP, SU
BIT 5124	Cyber Law and Policy for Information Technology		BIT 5594 or MGT 5804	FA
BIT 5594	Web-Based Applications & Electronic Commerce (CORE)			FA, SU
CYBERSECURITY TECHNOLOGIES				
ECE 5484	Fundamentals of Computer Systems (CORE)	Java, C, C++ or C#		FA, SP, SU
ECE 5585	IT Security and Trust I	ECE 5484		FA
ECE 5586	IT Security and Trust II	ECE 5585		SP
ECE 5480	Cybersecurity and the Internet of Things	ECE 5484 or CS 5044		FA, SP
HEALTH INFORMATION TECHNOLOGY				
ACIS 5504	Information Systems Design & Database Concepts (CORE)			FA, SP
BIT 5564	Healthcare Information Technology		ACIS 5504	SU
BIT 5574	Healthcare Data Management		ACIS 5504	SU
INFORMATION SYSTEMS DESIGN				
ACIS 5504	Information Systems Design & Database Concepts (CORE)			FA, SP
ACIS 5524	Advanced Database Management Systems	ACIS 5504		FA, SP
ACIS 5534	Information Systems Analysis and Design	ACIS 5504		FA
INFORMATION TECHNOLOGY MANAGEMENT				
BIT 5474	Computer-Based Decision Support Systems		BIT 5594	FA
BIT 5594	Web-Based Applications & Electronic Commerce (CORE)			FA, SU
MGT 5804	Strategic Leadership in Technology-Based Organizations (CORE)			FA, SP
INTERNET & NETWORK TECHNOLOGIES				
ECE 5480	Cybersecurity and the Internet of Things	ECE 5484 or CS 5044		FA, SP
ECE 5484	Fundamentals of Computer Systems (CORE)	Java, C, C++ or C#		FA, SP, SU
ECE 5485	Networks and Protocols I	ECE 5484		FA
SOFTWARE DEVELOPMENT				
CS 5044	Object-Oriented Programming with Java (CORE)	Java, C, C++ or C#		FA, SP, SU
CS 5244	Web Application Development	CS 5044		FA, SU
CS 5254	Mobile Application Development	CS 5044		SP
CS 5704	Software Engineering (CORE)	CS 5044		FA, SP

CHOICE