

# BUSINESS INFORMATION TECHNOLOGY MAJOR WITH OPERATIONS AND SUPPLY CHAIN MANAGEMENT OPTION

## Program Curriculum

Code	Title	Credits
<b>Degree Core Requirements</b>		
ACIS 2116	Principles of Accounting <sup>1,2</sup>	3
BIT 3414	Operations and Supply Chain Management <sup>2,#</sup>	3
FIN 3054	Legal and Ethical Environment of Business <sup>2,#</sup>	3
FIN 3104	Introduction to Finance <sup>2,#</sup>	3
HTM 2314	Introduction to International Business <sup>2</sup>	3
or MGT 2314	Introduction to International Business	
MGT 4394	Strategic Management <sup>2,#</sup>	3
MKTG 3104	Marketing Management <sup>2,#</sup>	3
Subtotal		21
<b>Major Requirements</b>		
ACIS 1504	Introduction to Business Analytics and Business Intelligence <sup>1,2</sup>	3
ACIS 2115	Principles of Accounting <sup>1,2</sup>	3
BIT 2104	Careers in Business Information Technology	1
BIT 3424	Introduction to Business Analytics Modeling <sup>#</sup>	3
BIT 3434	Advanced Modeling for Business Analytics <sup>#</sup>	3
BIT 4484	Project Management <sup>#</sup>	3
MGT 1104	Foundations of Business <sup>2</sup>	3
MGT 3404	Principles of Management <sup>2,#</sup>	3
PSYC 1004	Introductory Psychology	3
or SOC 1004	Introductory Sociology	
Select one of the following:		3
CS 1054	Introduction to Programming in Java	
CS 1064	Introduction to Programming in Python	
CS 1114	Introduction to Software Design	
Subtotal		28
<b>Option Required Courses</b>		
BIT 3454	Business Process Improvement <sup>#</sup>	3
BIT 3464	Enterprise Planning and Control Systems <sup>#</sup>	3
BIT 4434	Computer Simulation in Business <sup>#</sup>	3
BIT 4464	Advanced Supply Chain Management <sup>#</sup>	3
BIT 4474	Global Operations and Information Technology <sup>#</sup>	3
<i>BIT OSM Elective <sup>#</sup></i>		
Select two courses from the BIT OSM Electives list below. <sup>#</sup>		6
Subtotal		21
<b>Free Electives</b>		
Select nine credit hours of Free Electives		9
Subtotal		9
<b>Pathways to General Education</b>		
<i>Pathways Concept 1 - Discourse</i>		
ENGL 1105	First-Year Writing (1F)	3

or COMM 1015 Communication Skills		
ENGL 1106	First-Year Writing (1F)	3
or COMM 1016 Communication Skills		
Select three hours in Pathway 1a ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G01A">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G01A</a> )		3
<i>Pathways Concept 2 - Critical Thinking in the Humanities</i>		
Select six hours in Pathway 2 ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02</a> )		6
<i>Pathways Concept 3 - Reasoning in the Social Sciences</i>		
ECON 2005	Principles of Economics <sup>1,2</sup>	3
ECON 2006	Principles of Economics <sup>1,2</sup>	3
<i>Pathways Concept 4 - Reasoning in the Natural Sciences</i>		
Select six hours in Pathway 4 ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G04">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G04</a> )		6
<i>Pathways Concept 5 - Quantitative and Computational Thinking</i>		
MATH 1524	Business Calculus (5F) <sup>1,2</sup>	4
BIT 2405	Introduction to Business Statistics, Analytics, and Modeling (5F) <sup>1,2</sup>	3
BIT 2406	Introduction to Business Statistics, Analytics, and Modeling (5A) <sup>1,2</sup>	3
<i>Pathways Concept 6 - Critique and Practice in Design and the Arts</i>		
Select three hours in Pathway 6a ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06A">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06A</a> )		3
Select three hours in Pathway 6d ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06D">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06D</a> )		3
<i>Pathways Concept 7 - Critical Analysis of Identity and Equity in the United States</i>		
Select three hours in Pathway 7 ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G07">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G07</a> ) <sup>3</sup>		3
Subtotal		46
<b>Total Credits</b>		<b>125</b>

<sup>1</sup> Policy 91: Pamplin students in a business degree program must complete eight business courses (ACIS 1504 Introduction to Business Analytics and Business Intelligence, MATH 1524 Business Calculus, ACIS 2115 Principles of Accounting - ACIS 2116 Principles of Accounting, BIT 2405 Introduction to Business Statistics, Analytics, and Modeling - BIT 2406 Introduction to Business Statistics, Analytics, and Modeling, and ECON 2005 Principles of Economics - ECON 2006 Principles of Economics) with a grade of C- or higher by 72 attempted credit hours (or 90 attempted credit hours for students with more than 18 transfer credits). Students who have not met the requirements will be notified upon reaching 72 (or 90) credit hours that they must complete the missing course(s) in the next term(s) of enrollment. Failure to do so may result in the student's dismissal from the business degree program. This policy is strictly enforced.

<sup>2</sup> Graduation requirement: Students must achieve a grade of C- or higher in select business courses (ACIS 1504 Introduction to Business Analytics and Business Intelligence, MATH 1524 Business Calculus, ACIS 2115 Principles of Accounting - ACIS 2116 Principles of Accounting, BIT 2405 Introduction to Business Statistics, Analytics, and Modeling - BIT 2406 Introduction to Business Statistics, Analytics, and Modeling, ECON 2005 Principles of Economics - ECON 2006 Principles of Economics, MGT 1104 Foundations of Business, HTM 2314 Introduction to International Business or MGT 2314 Introduction to International Business, MGT 3404 Principles of Management, MKTG 3104 Marketing Management, FIN 3104 Introduction to Finance, FIN 3054 Legal and Ethical Environment of

Business, BIT 3414 Operations and Supply Chain Management, and MGT 4394 Strategic Management).

<sup>3</sup> Critical Analysis of Identity & Equity in the U.S. may be double-counted with another course (major, option, pathway, or free elective) that is designated as pathway 7. If this pathway is already met, students must take a free elective to meet the 125-credit hour requirement.

# Overall and In-Major GPA: Students must have an overall GPA of 2.0 and an in-major GPA of 2.0 to graduate. Courses used to calculate the in-major GPA are noted with a # footnote.

## BIT OSM Electives

Code	Title	Credits
BIT 2554	Linux, Shell Scripting, and Securing the OS for Business #	3
BIT 3444	Advanced Business Computing and Applications #	3
BIT 3514	Systems Analysis #	3
BIT 3524	Database Management and Design #	3
BIT 3474	Data Management and Business Analytics in Python #	3
BIT 3484	Advanced Business Analytics in Python and R #	3
BIT/ACIS 3554	Networks, Telecommunications and Security #	3
BIT 3664	Cybersecurity Management I #	3
BIT 3674	Cybersecurity Management II #	3
BIT 4424	Business Information Visualization and Analytics #	3
BIT 4444	Web-Based Decision Support Systems #	3
BIT 4454	Business Analysis Seminar in IT #	3
BIT 4544	Artificial Intelligence, Machine Learning, and Deep Learning in BIT #	3
BIT 4604	Data Governance, Privacy and Ethics #	3
BIT 4624	Cybersecurity Analytics for Business #	3
BIT 4854	Analytics in Action #	3

## Policy 91

University policy requires a student to make satisfactory academic progress towards a degree in order to remain enrolled at the institution (see footnote 1). Students are responsible for reading and understanding Policy 91 in accordance with Pamplin policies <http://pampl.in/policy91> (<http://pampl.in/policy91/>).

## Graduation Requirements

### General Information

A total of **125 credit hours** is required for graduation. Any exceptions to this curriculum must be approved by the student's department head and Associate Dean for Pamplin Undergraduate Programs.

### Pre-Requisites

Students are responsible for ensuring they have met necessary pre-requisites for all courses. Please refer to the Undergraduate Catalog or academic advisor.

### Transferring Courses

Requirements and procedures for transferring courses are available <http://pampl.in/transfercreditsteps> (<http://pampl.in/transfercreditsteps/>).

## Overall and In-Major GPA

Students must have an overall GPA of 2.0 and an in-major GPA of 2.0 to graduate. Courses used to calculate the in-major GPA are noted with a # footnote.

## Foreign Language Requirement

Students who did not successfully complete at least two years of a single foreign, classical, or sign language during high school must successfully complete six credit hours of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement may not count towards the minimum credit hours required for graduation. Please refer to the Undergraduate Catalog for details.

## Roadmap

First Year		Credits
<b>Fall Semester</b>		
ACIS 1504	Introduction to Business Analytics and Business Intelligence <sup>1,2</sup>	3
MATH 1524	Business Calculus <sup>1,2</sup>	4
MGT 1104	Foundations of Business <sup>2</sup>	3
ENGL 1105 or COMM 1015	First-Year Writing or Communication Skills	3
Select three credits in Pathway 2 ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02</a> )		3
<b>Credits</b>		<b>16</b>
<b>Spring Semester</b>		
ACIS 2115	Principles of Accounting <sup>1,2</sup>	3
ECON 2005	Principles of Economics <sup>1,2</sup>	3
BIT 2405	Introduction to Business Statistics, Analytics, and Modeling <sup>1,2</sup>	3
ENGL 1106 or COMM 1016	First-Year Writing or Communication Skills	3
PSYC 1004 or SOC 1004	Introductory Psychology or Introductory Sociology	3
BIT 2104	Careers in Business Information Technology	1
<b>Credits</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ACIS 2116	Principles of Accounting <sup>1,2</sup>	3
ECON 2006	Principles of Economics <sup>1,2</sup>	3
BIT 2406	Introduction to Business Statistics, Analytics, and Modeling <sup>1,2</sup>	3
Select one of the following:		3
CS 1054	Introduction to Programming in Java	
CS 1064	Introduction to Programming in Python	
CS 1114	Introduction to Software Design	
Select three credits in Pathway 4 ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G04">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G04</a> )		3
Select three credits in Pathway 6a ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06A">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06A</a> )		3
<b>Credits</b>		<b>18</b>
<b>Spring Semester</b>		
BIT 3414	Operations and Supply Chain Management <sup>2,#</sup>	3
BIT 3424	Introduction to Business Analytics Modeling #	3
HTM/MGT 2314	Introduction to International Business <sup>2</sup>	3
Select three credits in Pathway 2 ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02</a> )		3
Select three credits in Pathway 4 ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G04">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G04</a> )		3
<b>Credits</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
BIT 3434	Advanced Modeling for Business Analytics #	3

FIN 3104	Introduction to Finance <sup>2,#</sup>	3
BIT 3454	Business Process Improvement #	3
MKTG 3104	Marketing Management <sup>2,#</sup>	3
MGT 3404	Principles of Management <sup>2,#</sup>	3
<b>Credits</b>		<b>15</b>
<b>Spring Semester</b>		
BIT 3464	Enterprise Planning and Control Systems #	3
BIT 4434	Computer Simulation in Business #	3
BIT 4484	Project Management #	3
BIT 4464	Advanced Supply Chain Management #	3
Select three credits in Pathway 6d ( <a href="https://catalog.vt.edu/course-search/?atrs_pathways=atrs_pathways_G06D">https://catalog.vt.edu/course-search/?atrs_pathways=atrs_pathways_G06D</a> )		3
<b>Credits</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
BIT OSM Elective #		3
BIT 4474	Global Operations and Information Technology #	3
FIN 3054	Legal and Ethical Environment of Business <sup>2,#</sup>	3
Select three credits in Pathway 1a ( <a href="https://catalog.vt.edu/course-search/?atrs_pathways=atrs_pathways_G01A">https://catalog.vt.edu/course-search/?atrs_pathways=atrs_pathways_G01A</a> )		3
Free Elective		3
<b>Credits</b>		<b>15</b>
<b>Spring Semester</b>		
BIT OSM Elective #		3
MGT 4394	Strategic Management <sup>2,#</sup>	3
Select three credits in Pathway 7 ( <a href="https://catalog.vt.edu/course-search/?atrs_pathways=atrs_pathways_G07">https://catalog.vt.edu/course-search/?atrs_pathways=atrs_pathways_G07</a> ) or free elective <sup>3</sup>		3
Free Elective		3
Free Elective		3
<b>Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>125</b>

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<sup>3</sup> **Pre-requisites:** Students are responsible for ensuring they have met necessary pre-requisites for all courses. Please refer to the Undergraduate Catalog or academic advisor.

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<sup>5</sup> Critical Analysis of Identity & Equity in the U.S. may be double-counted with another course (major, option, pathway, or free elective) that is designated as Pathway 7. If this pathway is already met, students must take a free elective to meet the 125-credit hour requirement.

## BIT OSM Electives

Code	Title	Credits
BIT 3514	Systems Analysis <sup>1,2</sup>	3
BIT 3524	Database Management and Design <sup>1,2</sup>	3
BIT/ACIS 3554	Networks, Telecommunications and Security <sup>1,2</sup>	3
BIT 4424	Business Information Visualization and Analytics <sup>1,2</sup>	3
BIT 4444	Web-Based Decision Support Systems <sup>1,2</sup>	3
BIT 4454	Business Analysis Seminar in IT <sup>1,2</sup>	3
BIT 4544	Artificial Intelligence, Machine Learning, and Deep Learning in BIT <sup>1,2</sup>	3
BIT 4604	Data Governance, Privacy and Ethics <sup>1,2</sup>	3
BIT 4614	<sup>1,2</sup>	3
BIT 4624	Cybersecurity Analytics for Business <sup>1,2</sup>	3

<sup>1</sup> **Pre-requisites:** Students are responsible for ensuring they have met necessary pre-requisites for all courses. Please refer to the Undergraduate Catalog or academic advisor.

<sup>2</sup> **Overall and In-Major GPA:** Students must have an overall GPA of 2.0 and an in-major GPA of 2.0 to graduate. Courses used to calculate the in-major GPA are noted.