



PAMPLIN COLLEGE OF  
**BUSINESS**  
VIRGINIA TECH.

**BUSINESS INFORMATION TECHNOLOGY MAJOR  
OPTION III: CYBERSECURITY MANAGEMENT AND  
ANALYTICS (BIT-CYBER)**

Department of Business Information Technology

Bachelor of Science in Business

For students graduating in calendar year **2021**

University Policy 91 requires a student to make satisfactory academic progress towards a degree, see Footnote 1, in order to remain enrolled in the institution. Students are responsible for reading and understanding Policy 91, in accordance with Pamplin Policies (<http://www.pamplin.vt.edu/undergraduate-programs/advising/academic-policies/>)

<b><u>FRESHMAN YEAR</u></b> (31 Semester Hours Required)	<b>F</b>	<b>SP</b>
<b>ACIS 1504</b> Introduction to Business Analytics and Business Intelligence <sup>1,2</sup> .....	3	_____
ENGL 1105-1106 Freshman English or COMM 1015-1016 Communication Skills.....	3	3 _____
Area 5: MATH 1524 Business Calculus <sup>1,2</sup> or MATH 1525-1526 Calc With Matrices .....	4	_____
Area 4: Scientific Reasoning and Discovery .....	3	3 _____
<b>PSYC 1004 OR SOC 1004</b> Introductory Psychology or Sociology.....	3	_____
<b>ACIS 2115</b> Principles of Accounting <sup>1,2</sup> .....	3	_____
<b>BIT 2405</b> Quantitative Methods <sup>1,2</sup> (Pre: MATH 1524 or MATH 1525-1526).....	3	_____
Area 3: <b>ECON 2005</b> Principles of Economics <sup>1,2</sup> .....	3	_____

<b><u>SOPHOMORE YEAR</u></b> (33 Semester Hours Required)	<b>F</b>	<b>SP</b>
<b>ACIS 2116</b> Principles of Accounting <sup>1,2</sup> (Pre: ACIS 2115).....	3	_____
<b>BIT 2406</b> Quantitative Methods <sup>1,2</sup> (Pre: 2405).....	3	_____
Area 3: <b>ECON 2006</b> Principles of Economics <sup>1,2</sup> (Pre: ECON 2005) .....	3	_____
^CS 1054 Intro to Programming in JAVA or CS 1064 Intro to Programming in PYTHON <sup>5</sup>	3	_____
Area 2: Ideas, Cultural Traditions and Values.....	3	3 _____
COMM 2004 Public Speaking <sup>3</sup> .....	3	_____
# <b>BIT 3414</b> Operations and Supply Chain Management <sup>2, 5</sup> (Pre: 2406, ECON 2006, ACIS 2116).....	3	_____
#^BIT 3424 Introduction to Business Analytics Modeling <sup>5</sup> (Pre:2406) .....	3	_____
Free Elective <sup>4</sup> .....	6	_____

<b><u>JUNIOR YEAR</u></b> (31 Semester Hours Required)	<b>F</b>	<b>SP</b>
#^ BIT 3434 Advanced Modeling for Business Analytics (Pre: 2406).....	3	_____
#^ BIT 3444 Adv Business Computing and Appl (Pre: 3424, CS 1054 or CS 1064 or CS 1114) ..	3	_____
# <b>MGT 3304</b> Management Theory & Leadership Practice <sup>2</sup> .....	3	_____
# <b>MKTG 3104</b> Marketing Management <sup>2</sup> (Pre: BIT 2406) .....	3	_____
#+ BIT 4554 (ACIS 4554) Networks and Telecommunications in Business (Pre: 3424 or ACIS 3504).....	3	_____
# <b>FIN 3104</b> Introduction to Finance <sup>2</sup> (Pre: ACIS 2115, (BIT 2405 or STAT 3005 or STAT 3604 or STAT 4604 or STAT 4705 or STAT 4714 or STAT 3615 or STAT 3616), (ECON 2005 or ECON 2025H) .....	3	_____
#^ BIT 4484 Project Management (Pre: 3414) .....	3	_____
# <b>FIN 3054</b> Legal and Ethical Environment of Business <sup>2</sup> .....	3	_____
Free Elective <sup>4</sup> .....	3	4 _____

<b><u>SENIOR YEAR</u></b> (30 Semester Hours Required)	<b>F</b>	<b>SP</b>
#+ BIT Elective <sup>6</sup> .....	3	_____
#+ BIT 4614 Information Security (Pre: 3424) .....	3	_____
#+ FIN 4014 Cyberlaw and Policy (Pre: Jr standing).....	3	_____
# <b>MGT 4394</b> Strategic Management <sup>2</sup> (Pre: MGT 3304, (MKTG 3104 or MKTG 3104H), FIN 3104, BIT 3414) .....	3	_____
#+ BIT 4964 Field Work (Pre: approval) .....	6	_____
#+ BIT 4624 Cybersecurity Analytics for Business (Pre: 4614) .....	3	_____
Free Elective <sup>4</sup> .....	3	6 _____

## GENERAL INFORMATION

This check sheet applies to students completing their degrees in calendar year 2021 in the terms ending May, July, August, or December. A total of 125 semester hours is required for graduation. Any exceptions to this curriculum must be approved by the student's Department Head and the Pamplin College of Business Associate Dean for Undergraduate Programs.

**Transferring courses:** Additional requirements and procedures for transferring courses are available in the Undergraduate Catalog and the Pamplin College of Business form, "Authorization to Take Courses Elsewhere."

**#Overall and In-Major GPA:** Students must have an overall GPA of at least a 2.0 and an in-major GPA of at least a 2.0 to graduate. Courses used to calculate the in-major GPA are noted with a # (e.g., #BIT 3424).

**^Major requirements:** These courses are required of all BIT majors.

**+Option requirements:** These courses are required for BIT OPTION III: Cybersecurity Management and Analytics

**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 semester hours of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement do not count towards the hours required for graduation. Please consult the Undergraduate Catalog for details.

### **Departmental Policy on Satisfactory Progress Toward a Degree:**

All students in the Business Information Technology major having attempted 72 semester hours (students who entered Pamplin as freshmen) or 90 credit hours (students who transferred into Pamplin) must maintain an overall GPA of 2.0 or better and an in-major GPA of 2.0 or better (in-major credits are indicated by the # on the departmental check sheet). Any student whose GPA falls below this standard will have one semester to regain an overall and in-major GPA of 2.0 or better. Failing to achieve this standard for any two semesters will result in the student being requested to leave the major and having his/her registration blocked until they file a change of major. Students must have a 2.0 in-major GPA to graduate. (The in-major GPA includes all 3000 and 4000 level BIT courses and upper division business core marked with #).

**Pre-requisites:** Please be aware that some BIT courses require pre-requisites. Students are responsible for ensuring they have the necessary pre-requisites by referring to the Undergraduate Catalog or their advisor.

## FOOTNOTES

<sup>1</sup> Satisfactory progress toward a degree: Upon having attempted 72 credit hours (students who entered Pamplin as freshmen) or 90 credit hours (students who transferred into Pamplin), a student must: (1) achieve no grade lower than a C- in MATH 1524; ACIS 1504, 2115 and 2116; BIT 2405 and 2406; ECON 2005 and 2006; and (2) achieve a minimum GPA of 2.0 in the combination of courses previously listed. Students who have not met the requirements will be notified upon reaching 72 credit hours (or 90 credit hours for transfer students) that they must complete any missing courses during the next term of enrollment to rectify any deficiencies. Failing to do so will result in a student being required to transfer to another college at Virginia Tech. This policy is strictly enforced.

<sup>2</sup> Business core courses are listed in **bold**. A student must achieve a grade of C- or better in the business core courses (**ACIS 1504, ACIS 2115-2116, BIT 2405-2406, ECON 2005-2006, BIT 3414, FIN 3104, MGT 3304, MKTG 3104, FIN 3054 or 3074, PSYC 1004 or SOC 1004, and MGT 4394**). A grade of C- or better must be earned in BIT 3414, FIN 3104, MGT 3304, and MKTG 3104 before taking MGT 4394. FIN 3054 or 3074 may be taken at the same time as MGT 4394, however, the student must earn the specified grade or repeat the course and earn a C- or better before a business degree can be earned.

<sup>3</sup> COMM 2004 Public Speaking is required for all Business majors who did not take COMM 1015-1016. It may be completed in the sophomore, junior or senior year. If COMM 1015-1016 has been taken, this can be filled with a free elective.

<sup>4</sup> Free electives must include at least one hour from the Curriculum for Liberal Education Area 6: Creativity and Aesthetic Experience. The Curriculum for Liberal Education, Area 7: Critical Issues in A Global Context, may be used to meet another requirement or taken as a free elective.

<sup>5</sup> Students minoring in Computer Science may take CS 1114.

<sup>6</sup> The following courses are approved as BIT electives for OPTION III: Cybersecurity Management and Analytics:

- # BIT 4424 Business Information Visualization and Analytics (Pre: 3424)
- # BIT 4514 Database Technology for Business (Pre: 4524)
- # BIT 4524 Systems Development (Pre: 3424 or CS 1054 or CS 1064)
- # BIT 4604 Data Governance, Privacy and Ethics (Pre: 2405)
- # BIT 5114 Crime and Conflict in Cyberspace (*requires permission*)
- # BIT 5134 Cybersecurity Program Design & Operation (*requires permission*)

(February 2019)