Academic Year 2024–25

GUIDE TO GRADUATION

BACHELOR OF SCIENCE: Applied Information Technology

UNIVERSITY OF
BALTIMORE
1925

**Yale Gordon College of
Arts and Sciences**

ubalt.edu/ait

The **Yale Gordon College of Arts and Sciences** is committed to providing the guidance and support you need to complete your program in a timely manner. This Guide to Graduation provides the in-depth information necessary to assist you in planning your undergraduate academic career. It contains contact information, important resources, a program checklist and a suggested four-year plan of study.

While this information will be helpful to you, you should also contact your academic adviser. You adviser is there to assist you in planning your program plan of study and to answer your questions. All new students are required to meet with an adviser prior to registering for their first semester to receive a personalized program checklist.

The University of Baltimore recognizes that consistent and timely academic advising is strongly related to student success. To enhance the services we provide to our students and to increase the likeliness for success and on-time degree completion, UBalt implemented mandatory milestone advising for all new undergraduate students beginning in fall 2017.

Milestone advising will be anchored by three specific touch points and aligned with the personal, professional and academic goals of students at those points.

45 Credits: Advisers will work with students to further explore the declared major and connect students with support services, clubs and other campus groups to enhance the opportunity to be involved in the UBalt community.

60 Credits: Advisers will work with students to prepare for internships, Global Field Studies and other experiential learning opportunities. Students will also be re-introduced to the support services offered by the Career and Internship Center.

90 Credits: Advisers will focus on the final steps to graduation and the options for post-bachelor's degree completion. Students will learn more about the graduate degree programs at UBalt that fit with their goals.

Students must meet with their advisers to discuss their next steps for registration, course scheduling and other key academic topics before they register for classes. Advisers will release the milestone advising service indicator on students' accounts at the conclusion of the advising meetings.

Your academic adviser will assist you throughout your time at UBalt at any credit point; however, it is ultimately your responsibility to complete the degree requirements and acquaint yourself with the University's academic policies.

CONTACT INFO:

**Yale Gordon College of Arts and Sciences Dean's Office
Academic Center, Room 249
410.837.5351
ubalt.edu/ait**

RESOURCES:

**Office of Records and Registration
ubalt.edu/records**

**Office of Financial Aid
ubalt.edu/financialaid**

**Office of the Bursar
ubalt.edu/bursar**

**Academic Success
ubalt.edu/success**

**Career and Internship Center
ubalt.edu/careercenter**

Call to schedule your advising appointment today.

GENERAL EDUCATION REQUIREMENTS—38 CREDITS

- Students entering in fall 2024 and later
- Upper-division courses are 300 or 400 level.
- Complete with a grade of C- or higher except where noted.
- See course lists for each area.

Fields of Inquiry—21-22 credits

Arts and Humanities Area—6 credits
Complete one course from two separate disciplines.

Course Title	Term	Grade	Credit Hours
_____	_____	_____	_____
_____	_____	_____	_____

Social and Behavioral Sciences Area—6 credits
Complete one course from two separate disciplines.

Course Title	Term	Grade	Credit Hours
_____	_____	_____	_____
_____	_____	_____	_____

Biological and Physical Sciences Area—7 credits
Complete two courses, one of which must be a laboratory course.

Course Title	Term	Grade	Credit Hours
_____	_____	_____	_____
_____	_____	_____	_____

Mathematics Area—3 credits

Course Title	Term	Grade	Credit Hours
_____	_____	_____	_____

(may take MATH 111, 113, 115, 153 or 163)

Signature University of Baltimore Experiences—9-15 credits

Writing for the Professions—3 credits
Prerequisite: English Composition or equivalent; placement test or WRIT 200 required

Course Title	Term	Grade	Credit Hours
_____	_____	_____	_____

(may take WRIT 300)

English Composition – 3 credits

Students may satisfy this prerequisite with a 3-credit English Composition course or through credit by examination, credit for prior learning, or a waiver from a transfer institution or from the UBalt writing program director and General Education Council.

	Term	Grade	Credit Hours
WRIT 101: College Composition	_____	_____	_____

Ethics – 3 credits

Course Title	Term	Grade	Credit Hours
_____	_____	_____	_____

(may take PHIL 140; PHIL 301; IDIS 302)

Diversity – 3 credits

Course Title	Term	Grade	Credit Hours
_____	_____	_____	_____

may be met through transfer credit, elective coursework (which may be free-standing or in a major), competency-based testing, portfolio review, credit by examination, credit for prior learning, or waiver with approval of the General Education Council; a credit-bearing course is not required.

Global Awareness – 3 credits

Course Title	Term	Grade	Credit Hours
AITC 332: Fundamentals of Computer Security	_____	_____	_____

may be met through transfer credit, elective coursework (which may be free-standing or in a major), competency-based testing, portfolio review, credit by examination, credit for prior learning, or waiver with approval of the General Education Council; a credit-bearing course is not required.

Captstone Experience – 3 credits

(taken in major or in honors program)

Course Title	Term	Grade	Credit Hours
AITC 490: Practicum in Information Technology	_____	_____	_____

Core Proficiencies – maximum of 9 credits

These requirements may be met through transfer credit, elective coursework (which may be free-standing or in a major), competency-based testing, portfolio review, credit by examination, credit for prior learning, or waiver with approval of the General Education Council. A credit-bearing course is not required.

Information Literacy – 3 credits

Course Title	Term	Grade	Credit Hours
GAME 324: Designing for Humans	_____	_____	_____

(may take INFO 110 or course in major)

Technological Fluency – 3 credits

Course Title	Term	Grade	Credit Hours
AITC 151: Computer Programming I	_____	_____	_____

(COSC 100, 101, 102, 155 or course in major)

Oral Communication – 3 credits

Course Title	Term	Grade	Credit Hours
AITC 490: Practicum in Information Technology *(May take CMAT 201, 303 or course in major)*	_____	_____	_____

General Education Electives

Number of electives required to meet 38 credits

Course Title	Term	Grade	Credit Hours
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

B.S. IN APPLIED INFORMATION TECHNOLOGY REQUIREMENTS – 57-63 CREDITS

- Students entering in fall 2017 and later
- Ensure you have met any prerequisites before registering for courses.
- Complete with a grade of C or higher.
- Consult with your adviser to determine which course to take when.

> Core Program Courses – 33 credits

Course	Term	Grade	Credit Hours
AITC 151: Computer Programming I	_____	_____	_____
AITC 210: Computer Hardware/Software Support	_____	_____	_____
AITC 212: Introduction to Linux	_____	_____	_____
AITC 251: Computer Programming II	_____	_____	_____
AITC 253: Client-Side Web Programming	_____	_____	_____
AITC 310: Fundamentals of Computer Networks	_____	_____	_____
AITC 332: Fundamentals of Computer Security	_____	_____	_____
AITC 356: Database Systems	_____	_____	_____
AITC 461: IT Project Management	_____	_____	_____
AITC 490: Capstone in Information Technology	_____	_____	_____
GAME 324: Designing for Humans	_____	_____	_____

> Math Requirements – 6 credits

MATH 303: Applied Probability and Statistics	_____	_____	_____
MATH 321: Mathematical Structures for Information Technology	_____	_____	_____

> Choose either the General Track (57 credits total) or one of two Concentrations (63 credits total):

General Track – 18 credits

- *Choose one:*

  ❑ AITC 312: Administrating and Supporting a
  Network Operating System   _____   _____   _____

  ❑ AITC 317: Virtualization and Cloud Computing   _____   _____   _____

Course	Term	Grade	Credit Hours

- *Choose one:*

  ❑ AITC 351: Object-Oriented Programming   _____   _____   _____

  ❑ AITC 352: Advanced Scripting and Task Automation   _____   _____   _____

- *Choose four AITC courses at the 400-level:*

  1. _____   _____   _____   _____

  2. _____   _____   _____   _____

  3. _____   _____   _____   _____

  4. _____   _____   _____   _____

Application Development Concentration – 24 credits

Course	Term	Grade	Credit Hours
AITC 317: Virtualization and Cloud Computing	_____	_____	_____
AITC 351: Object-Oriented Programming	_____	_____	_____
AITC 451: Object-Oriented Analysis and Design	_____	_____	_____
AITC 453: Advanced Web Development	_____	_____	_____
AITC 456: Advanced Database Systems	_____	_____	_____
AITC 457: Mobile Applications Programming	_____	_____	_____
AITC 458: Software Security	_____	_____	_____
AITC 459: Open Source Software Development	_____	_____	_____

Cyber Security Concentration – 24 credits

Course	Term	Grade	Credit Hours
AITC 312: Administering and Supporting a Network Operating Syst.	_____	_____	_____

- AITC 352: Advanced Scripting and Task Automation   _____   _____   _____

- AITC 416: Wireless Networking: Applications and Security   _____   _____   _____

- AITC 431: Applied Cryptography   _____   _____   _____

- AITC 432: Information Assurance   _____   _____   _____

Course	Term	Grade	Credit Hours
• AITC 433: Network Security	_____	_____	_____
• AITC 434: Web and Database Security	_____	_____	_____
• AITC 435: Digital Forensics for Information Technology	_____	_____	_____

> General Electives

Complete as many course as necessary from any discipline to fulfill your 120-credit requirement to graduate.

Course Name and Number	Term	Grade	Credit Hours
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

EXAMPLE PLANS OF STUDY

On the following pages are example two- and four-year plans of study for the B.S. in Applied Information Technology. They are meant to act as a guide for either two years of study after transferring from another institution or four years of study after entering as a freshman.

They need not be followed in the same order for every student. Part-time students and those students transferring in credits from another university or college will need to adjust their plan accordingly. These plans do not account for courses taken during summer sessions. Students should consult with their adviser each semester prior to registration.

2-Year Plan: Concentration in Application Development

2-Year Plan: Concentration in Cyber Security

2-Year Plan: General Applied Information Technology

4-Year Plan: Concentration in Application Development

4-Year Plan: Concentration in Cyber Security

4-Year Plan: General Applied Information Technology

2-Year Plan: Applied Information Technology, B.S.
Concentration in Application Development

Year 1

1st Semester	
AITC 310	3
AITC 332	3
AITC 351	3
AITC 356	3
WRIT 300	3
	15

2nd Semester	
AITC 317	3
AITC 324	3
AITC 453	3
MATH 321	3
PHIL 301	3
	15

Year 2

3rd Semester	
AITC 451	3
AITC 457	3
AITC 461	3
MATH 303	3
Elective	3
	15

4th Semester	
AITC 456	3
AITC 458	3
AITC 459	3
AITC 490	3
Elective	3
	15

Total 60

30		30

2-Year Plan: Applied Information Technology, B.S.
Concentration in Cyber Security

Year 1

1st Semester	
AITC 310	3
AITC 324	3
AITC 332	3
AITC 356	3
WRIT 300	3
	15

2nd Semester	
AITC 312	3
AITC 416	3
AITC 352	3
MATH 321	3
PHIL 301	3
	15

Year 2

3rd Semester	
AITC 432	3
AITC 434	3
AITC 461	3
MATH 303	3
Elective	3
	15

4th Semester	
AITC 431	3
AITC 433	3
AITC 435	3
AITC 490	3
Elective	3
	15

Total
60

30	30

2-Year Plan: Applied Information Technology, B.S.
General Applied Information Technology Degree

Year 1

1st Semester	
AITC 310	3
AITC 332	3
AITC 351 or AITC Elective	3
AITC 356	3
WRIT 300	3
	15

2nd Semester	
AITC 312 or AITC 317	3
AITC 324	3
AITC 352 or AITC Elective	3
MATH 321	3
PHIL 301	3
	15

Year 2

3rd Semester	
AITC Elective	3
AITC or Other Elective	3
AITC 461	3
MATH 303	3
Elective	3
	15

4th Semester	
AITC Elective	3
AITC or Other Elective	3
AITC 490	3
Elective	3
Elective	3
	15

Total
60

30	30

4-Year Plan: Applied Information Technology, B.S.
Concentration in Application Development

Year 1

1st Semester	
COSC 151 (GR)	3
General Education	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

2nd Semester	
General Education	3
General Education	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

Year 2

3rd Semester	
AITC 210	3
AITC 253	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

4th Semester	
AITC 212	3
AITC 251	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

Year 3

5th Semester	
AITC 310	3
AITC 332	3
AITC 351	3
AITC 356	3
WRIT 300	3
	15

6th Semester	
AITC 317	3
AITC 324	3
AITC 453	3
MATH 321	3
PHIL 301	3
	15

Year 4

7th Semester	
AITC 451	3
AITC 457	3
AITC 461	3
MATH 303	3
Elective	3
	15

8th Semester	
AITC 456	3
AITC 458	3
AITC 459	3
AITC 490	3
Elective	3
	15

Total 120

60	60

4-Year Plan: Applied Information Technology, B.S.
Concentration in Cyber Security

Year 1

1st Semester	
COSC 151 (GR)	3
General Education	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

2nd Semester	
General Education	3
General Education	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

Year 2

3rd Semester	
AITC 210	3
AITC 253	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

4th Semester	
AITC 212	3
AITC 251	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

Year 3

5th Semester	
AITC 310	3
AITC 324	3
AITC 332	3
AITC 356	3
WRIT 300	3
	15

6th Semester	
AITC 312	3
AITC 416	3
AITC 352	3
MATH 321	3
PHIL 301	3
	15

Year 4

7th Semester	
AITC 432	3
AITC 434	3
AITC 461	3
MATH 303	3
Elective	3
	15

8th Semester	
AITC 431	3
AITC 433	3
AITC 435	3
AITC 490	3
Elective	3
	15

Total
120

60	60

4-Year Plan: Applied Information Technology, B.S.
General Applied Information Technology Degree

Year 1

1st Semester	
COSC 151 (GR)	3
General Education	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

2nd Semester	
General Education	3
General Education	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

Year 2

3rd Semester	
AITC 210	3
AITC 253	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

4th Semester	
AITC 212	3
AITC 251	3
General Education	3
General Education/General Elective	3
General Education/General Elective	3
	15

Year 3

5th Semester	
AITC 310	3
AITC 332	3
AITC 351 or AITC Elective	3
AITC 356	3
WRIT 300	3
	15

6th Semester	
AITC 312 or AITC 317	3
AITC 324	3
AITC 352 or AITC Elective	3
MATH 321	3
PHIL 301	3
	15

Year 4

7th Semester	
AITC Elective	3
AITC or Other Elective	3
AITC 461	3
MATH 303	3
Elective	3
	15

8th Semester	
AITC Elective	3
AITC or Other Elective	3
AITC 490	3
Elective	3
Elective	3
	15

Total **120**

60	60