Academic Year 2022-23

GUIDE TO GRADUATION

BACHELOR OF SCIENCE: Applied Information Technology

UNIVERSITY OF BALTIMORE

Yale Gordon College of Arts and Sciences

ubalt.edu/ait

UNIVERSITY OF BALTIMORE
Knowledge That Works

B.S. in Applied Information Technology
Academic Year 2022-23

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.

B.S. IN APPLIED INFORMATION TECHNOLOGY PROGRAM CHECKLIST

120 credits required to graduate; note the grades required for each type of requirement below

General Education Requirements – 38 credits

- Students entering in fall 2016 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.

Arts and Humanities Area (AH, AHE) – 6 credits

Complete one course from two separate AH disciplines.

	Course Title	Term	Grade	Credit Hours
AH1:	_____	_____	_____	_____
AH2:	_____	_____	_____	_____

Upper Division Ethics Area (UETH) – 3 credits

Complete one course.

	Course Title	Term	Grade	Credit Hours
***UETH:**	_____	_____	_____	_____

**(upper division, C or better)*

Social and Behavioral Sciences Area (SBS) – 6 credits

Complete one course from two separate SBS disciplines.

	Course Title	Term	Grade	Credit Hours
SBS1:	_____	_____	_____	_____
SBS2:	_____	_____	_____	_____

Biological and Physical Sciences Area (BPS, BPSL) – 7 credits

Complete two courses, one of which must be a laboratory course.

	Course Title	Term	Grade	Credit Hours
BPS:	_____	_____	_____	_____
BPSL:	_____	_____	_____	_____

Mathematics Area (MA) – 3 credits

Complete one course. Check your major requirements for recommendation. Note: placement required prior to registration

❑ Complete Math Placement: RSVP at ubalt.edu/placement

	Course Title	Term	Grade	Credit Hours
MA:	_____	_____	_____	_____

English Composition Area (COMP, UCOMP) – 6 credits

Complete two composition courses, one of which must be upper division. Note: placement required prior to registration

	Course Title	Term	Grade	Credit Hours
COMP:	_____	_____	_____	_____
***UCOMP:**	_____	_____	_____	_____
(upper division, C or better)				

General Education Electives (ELECGE) – 7+ credits

Complete as many general education courses as needed to reach 38-credit requirement.

	Course Title	Term	Grade	Credit Hours
ELECGE:	_____	_____	_____	_____
ELECGE:	_____	_____	_____	_____
ELECGE:	_____	_____	_____	_____

Students with an A.A. or A.S. degree from a Maryland public institution complete only the AHE and UCOMP requirements.

University of Baltimore Graduation Requirements

- Students entering in fall 2017 and later
- For General Education GR courses, earn a grade of C- or higher.
- For GR courses within your academic program, follow the grade requirements of the program.
- Consult with your academic adviser on the best course selections for your program.
- See lists of approved courses.

Information Literacy (IL)	Term	Grade	Credit Hours
GAME 324: Designing for Humans	_____	_____	_____

Technological Fluency (TF)	Term	Grade	Credit Hours
AITC 151: Computer Programming I	_____	_____	_____

Oral Communication (OC)	Term	Grade	Credit Hours
AITC 490: Practicum in Information Technology	_____	_____	_____

Global Awareness and Diverse Perspectives (GD)	Term	Grade	Credit Hours
AITC 332: Fundamentals of Computer Security			

Capstone Experience	Term	Grade	Credit Hours
AITC 490: Practicum in Information Technology			

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		2nd Semester	
AITC 310	3	AITC 317	3
AITC 332	3	AITC 324	3
AITC 351	3	AITC 453	3
AITC 356	3	MATH 321	3
WRIT 300	3	PHIL 301	3
	15		15

Year 2

3rd Semester		4th Semester	
AITC 451	3	AITC 456	3
AITC 457	3	AITC 458	3
AITC 461	3	AITC 459	3
MATH 303	3	AITC 490	3
Elective	3	Elective	3
	15		15

30	*Total* 60	30

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

Concentration in Cyber Security

Year 1

1st Semester		2nd Semester	
AITC 310	3	AITC 312	3
AITC 324	3	AITC 416	3
AITC 332	3	AITC 352	3
AITC 356	3	MATH 321	3
WRIT 300	3	PHIL 301	3
	15		15

Year 2

3rd Semester		4th Semester	
AITC 432	3	AITC 431	3
AITC 434	3	AITC 433	3
AITC 461	3	AITC 435	3
MATH 303	3	AITC 490	3
Elective	3	Elective	3
	15		15

30	*Total* 60	30

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

General Applied Information Technology Degree

Year 1

1st Semester		2nd Semester	
AITC 310	3	AITC 312 or AITC 317	3
AITC 332	3	AITC 324	3
AITC 351 or AITC Elective	3	AITC 352 or AITC Elective	3
AITC 356	3	MATH 321	3
WRIT 300	3	PHIL 301	3
	15		15

Year 2

3rd Semester		4th Semester	
AITC Elective	3	AITC Elective	3
AITC or Other Elective	3	AITC or Other Elective	3
AITC 461	3	AITC 490	3
MATH 303	3	Elective	3
Elective	3	Elective	3
	15		15

30	*Total* 60	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

60	*Total* **120**	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

60	*Total* **120**	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

60	*Total* 120	60