

ACC 3202 (Summer 2026)

Accounting Information Systems and Data Analytics

Instructor:	Hunter Ng (hunterboonhian.ng@baruch.cuny.edu)
Classroom:	VC 3-150
Office:	VC 12-222, (Office Hrs: 2000 – 2100, Mondays, Office/Zoom).
Class Format:	Physical / Online / Hybrid
Phone:	646-312-3160
Section Marker:	S3DA
Course Prerequisites:	-
Class Time:	Mondays and Wednesdays – 1730 - 2000
Disclaimer:	<u>This syllabus is subject to change at any time. You will need a laptop for this class and bring to class every lesson (unless not needed). If you do not have one, please borrow one from Technology Loan Service.</u>
AI Use Policy:	This course acknowledges the growing presence of AI tools in academic and professional settings and you are expected to utilize AI tools as core components of your workflow. By enrolling in this course, you agree to ensure proper attribution of the tools used. Misrepresenting your contribution or the tool's capabilities constitutes academic dishonesty. AI tools are encouraged in this course to support your learning. We will explore the ethical, social, and environmental impacts of AI. You are expected to use them responsibly and reflect on their implications. Please contact the instructor if you have any questions about permissible technology usage. Use of AI beyond what is allowed in this policy is a violation of the academic integrity policy.

Course Description and Learning Goals

This course is an introduction to accounting information systems and data analytics in accounting. The primary learning objectives are to (1) understand enterprise accounting information systems, (2) apply data analytics to solve problems in accounting and other business areas. Throughout the course, you will receive hands-on experience with applying data science techniques through a series of technical labs and assignments. Topics covered include

accounting information systems and business processes, BPMN, UML, SQL, XBRL, encryption, database management, COSO and COBIT framework, data cleaning and practical techniques such as CART, neural network, vibe coding, with hands-on projects that are suitable for entry-level data analyst jobs.

For this course, I will cover both academic and practical skills for DA. I will cover this in Access, Tableau, SQLite, Python, Mermaid Charts, Automa.

Required Reading: Connect Textbook as stated in syllabus and required by the Department.

Strongly Recommended Readings (will be in Brightspace)

- Conceptual Framework For Financial Reporting
- COSO 2012 Exposure Draft
- COBIT 2019

Optional Readings:

- Jerry Maginnis, *Advice for a Successful Career in the Accounting Profession: How to Make Your Assets Greatly Exceed Your Liabilities*, 2nd ed. (Wiley, 2026). ISBN: 978-1-394-39478-4. – Read this yourself about how to go further in this career

Course Disclaimer

If you are in this course, you have consented to the following:

1. You will take responsibility for your learning, and come to class joyfully
2. You will not write emails to ask for more marks. Every semester, I receive emails from students asking for extra credit, etc. I will not entertain any emails on this, and I reserve the right to penalize students
3. You will not use any means to gain unfair advantages in any assessments in this class
4. You agree that this syllabus is subject to change at any time, and components may be added or removed to facilitate your learning and grading.
5. You agree that late submissions will not be graded.
6. If you do not agree to these, you should withdraw and take ACC3202 with another instructor.

Signature of Student: _____

Course Meeting Dates (EVERYTHING IS TENTATIVE AND SUBJECT TO CHANGE)

Location – Vertical Campus 7-155

N	Date	Day	Topics Covered	Assignments Due
1	8 June 10 June	Monday (Online/Pre-recorded) Wednesday (Online/Pre-recorded)	Content - In The Lap of Truth - Course Structure and Grading Policy - What this course is and what it is not - What is AIS and How is it used in Firms Please go to https://hunternbh.github.io/acc3202-online/ - to access the videos, learning course, and then complete the submissions to Brightspace. Please go to https://experience.eyarc.site/login/create_account/Student to access the EY assignments. Use 71335-13922-36768 for the class code. Please refer to the EY-ARC folder in brightspace for more details. Textbook Chapter – C1, C2	Brightspace assignment open, due on 14th June, Sunday, 2359. EYARC assignment open, due on 15th July, Sunday, 2359. Only 1 attempt is given.
2	15 June 17 June	Monday (Online/Pre-recorded) Wednesday (Online/Pre-recorded)	Content - Accountants as Business Analysts - Business Process Modelling Notation - Camunda BPMN - Data Modelling UML - SQL Please go to https://hunternbh.github.io/acc3202-online/ - to access the videos, learning course, and then complete the submissions to Brightspace. Textbook Chapter – C3, C4	Brightspace assignment open, due on 21st June, Sunday, 2359. Connect open, due on 5th, 7th July, Sunday, 2359.
3	22 June 24 June	Monday (Online) Wednesday (Online)	Content - Revision of Chapters 1 to 4 Content - SQL	Connect open, due on 12th, 14th July,

			- XBRL and Tagging Please go to https://gc-cuny-edu.zoom.us/j/9791286502 promptly at 1730 - 2000 EST. I will be conducting the lessons through zoom. There will be no recordings done to ensure students come to class on time every week instead of relying on recordings. If you have missed a class, we can arrange office hours. Textbook Chapter – C9, C13, C14, C15	Sunday, 2359. SQL INDIVIDUAL PROJECT 1 RELEASED. Due on 12th August 2359
4	29 June 1 July	Monday (Physical) Wednesday (Physical)	Content - AIS and Internal Controls - COSO, COBIT, NIST - Encryption and Decryption If you are attending online, please go to https://gc-cuny-edu.zoom.us/j/9791286502 promptly at 1730 - 2000 EST Textbook Chapter –	
5	6 July 8 July	Monday (Physical) Wednesday (Physical)	EYArc Assignment Review and UML, BPMN, SQL Review If you are attending online, please go to https://gc-cuny-edu.zoom.us/j/9791286502 promptly at 1730 - 2000 EST EYArc Assignments + Revision of previous TB Chapters	VIBE CODING INDIVIDUAL PROJECT 2 RELEASED. Due on 12th August 2359
6a	13 July 15 July	Monday (Physical) Wednesday (Physical)	Content - ACCESS Demo, Tableau Demo - Excel Basics - Why the old school will still work - Data Cleaning - Reviewing the SQL Project, Vibe Coding Project, Excel Project - Midterms Review If you are attending online, please go to https://gc-cuny-edu.zoom.us/j/9791286502 promptly at 1730 - 2000 EST	

7	20 July 22 July	Monday (Online) Wednesday (Physical)	<u>Mid-Terms HELD online on Monday [DO NOT COME TO SCHOOL] 100 100 100</u> Midterms will be conducted on Connect. There will be a trial midterms given to test your computer settings. More information given in email announcement and on Brightspace. Wednesday - Content - Introduction to Data Analytics If you are attending online, please go to https://gc-cuny-edu.zoom.us/j/9791286502 promptly at 1730 - 2000 EST	Connect open, due <u>on 10th, 12th August,</u> Sunday, 2359.
8	27 July 29 July	Monday (Physical) Wednesday (Physical)	Monday – PHYSICAL QUIZ 1 – you need to come to school physically to complete this. If you cannot come to school for whatever reason, I will hear you out and do a makeup but the quiz will still be done physically. Content - Introduction to Data Analytics - Types of Data - Data Philosophies - Microsoft Access - Tableau - Alteryx Textbook Chapter: C1 to C10 of DA If you are attending online, please go to https://gc-cuny-edu.zoom.us/j/9791286502 promptly at 1730 - 2000 EST	
9	3 August 5 August	Monday (Physical) (e-learning) Wednesday (Physical)	Monday – NO CLASS – E-LEARNING – I will be attending a conference in another state. Please take the time to complete your assignments. Refer to https://hunternbh.github.io/acc3202-online/ for the extra lesson and some hints on the projects. Send me an email if you are unsure.	

			Content - Python Basics - Regression, CART, Neural Network AGILE Group Project (PHYSICAL) - You need to be physically present and on time in this class to be scored for the group project. - If you are unable to attend, please let me know in advance. If you are attending online, please go to https://gc-cuny-edu.zoom.us/j/9791286502 promptly at 1730 - 2000 EST WEDNESDAY - LUNCH IN CLASS	
10	10 August	Monday (Physical)	Monday – PHYSICAL QUIZ 2 – you need to come to school physically to complete this. If you cannot come to school for whatever reason, I will hear you out and do a makeup but the quiz will still be done physically. Ticketing Bot Exercise (PHYSICAL IN CLASS) Content - Python Basics - Regression, CART, Neural Network - DA Bonus Credit – Irrigation Kaggle Briefing - Review Content If you are attending online, please go to https://gc-cuny-edu.zoom.us/j/9791286502 promptly at 1730 - 2000 EST	"
11	12 August	Wednesday (Physical)	<u>FINALS IN CLASS</u> 100 100 100 5.30pm to 8.00pm – VC3-150	

Course Materials (Compulsory for grading purposes)

COMPULSORY TO BUY AS PER DEPARTMENT REQUIREMENTS -
<https://connect.mheducation.com/class/h-ng-summer-2026-acc3202>

ACC 3202 - Accounting Information Systems and Data Analytics (ISBN: 9781264489121). This textbook is customized for Baruch and combines selected chapters from the following two textbooks:

Introduction to Data Analytics for Accounting ("DA"), 2e, Richardson, Terrell, Teeter.

Accounting Information Systems ("AIS"), 3e, Richardson, Chang, and Smith.

You can purchase stand-alone Connect access (with immediate access to e-book but NOT hard copy) at a discounted price (~\$93.28). To buy the stand-alone Connect access, click "Link to Connect" from the Blackboard course menu on the left, then click "Go to My Connect Section". Follow the on-screen instructions to register. **Caveat: the open-book midterm and/or final exams may use an online proctoring system that will, for the duration of the exam, "lockdown" the student's computer or web browser so that it can be used only for the exam page. This means that while you can still refer to any printed materials including the textbook, you will not have access to the e-book on Connect during the exam.**

McGraw-Hill Connect (Compulsory for grading purposes)

Access to Connect is required for this course. All assignments and exams will be available through McGraw Hill Connect unless otherwise specified. To access the Connect course web address, click "link to Connect" from the Blackboard menu items on the left, then click "Go to My Connect Section". Follow the on-screen instructions to register or sign in. Please register for Connect using your Baruch email only

Using Connect: http://mpss.mhhe.com/assets/Student_Quick_Tips.pdf. Live chat with a representative is usually the quickest way to get your questions answered:

<https://mhedu.force.com/CXG/s/ContactUs> OR (800) 331-5094: Call live rep during these hours:

Sunday: 12:00 PM to 12:00 AM EST | Monday-Thursday: 24 hrs | Friday: 12:00 AM to 9:00 PM EST | Saturday: 10:00 AM to 8:00 PM EST

Textbooks

We will cover AIS C1, C2, C3, C4, C9, C13, C14, C15, C16, C18. DA – C1 to C10

Other Requirements (Pre-requisite 2)

I will be communicating through BrightSpace and the emails you have saved on Brightspace. If your email is not working and you are not receiving my emails, you should check your email settings or email Baruch IT helpdesk. I will assume that you are receiving my emails and no exception will be made for students not receiving my announcements. A laptop or desktop with a reliable Internet connection is required for this course. I will also use three softwares in this

course – Excel, Tableau, Python. Excel is proprietary Microsoft software, while Tableau is free for students and Python is free for everyone.

Grade Distribution Standards for Accounting 3000 Level Courses

Grade	Percentage
A	20-25%
A and B	40-50%
A, B, and C	75-88%
D, F, W, and INC	15-25%

Grade Components

Connect Homework – AIS (Various Due Dates)	8
Midterm Exam – AIS	17
Quizzes (2 in total, 5% each) – Hardcopy in Class	10
Connect Homework – DA (Various Due Dates)	8
Online Brightspace	4
Final Exam – DA – Hardcopy in Class	20
Individual Project 1 – SQL Commands	7
Individual Project 2 – Vibe Coding	7
Individual Project 3 – Learning with AGILE	5
EYARC Assignments	6
Excel Assignment	5
Ticketing Bot (Internal Controls) (PHYSICAL)	3
Total	100
Bonus – Kaggle Project (Irrigation DA)	1-2*

Grading Curve

Depending on the class performance, I will curve the performance accordingly. **The grade distribution standards take precedence before your actual marks. I may or may not follow the grade distribution standards. Therefore, your actual marks may be lower or higher, depending on your relative position in class. If you do not agree with this, you should register for other instructors' classes.**

Final Letter Grade Scale

Please refer to Baruch's official letter grade scale. There will be no rounding in this course.

Participation and Bonus Credits for Python

For the physical format, attendance is compulsory. I will do a roll call 5 minutes after class starts. This is a physical class, not a distance learning class. If you would prefer an online-only class, please sign up for another class accordingly.

Attendance will be taken for each physical class. Students who are late with valid reasons may be excused. You are to inform me by email before class starts. **Any emails sent after class starts will not be entertained.**

For the hybrid (asynchronous) / online formats, there is no attendance component. There will be no recording of the classes for online viewing, but students can refer to the lecture notes and Connect textbook.

There will be a bonus credit for a Kaggle project and information will be given closer to the date. **If you miss the classes, I will not entertain any emails asking for information about it.** It is designed to build up your DA skills and for me to monitor your participation in class. Everything you need is in the brief. Any late submissions will be ignored, without any reason. The bonus is also a fluctuating total and meant for me to do curving as per department requirements.

Connect Grading

Every homework will be due 3 weeks after it is assigned and the due date will also be listed in the syllabus. **To be fair to the entire class, I will not entertain any emails asking for extensions via any form of reason.**

Final Project

The final group project will consist of presenting a case. **It will take place physically in class.** (This will be subject to change due to the online nature). If you cannot attend the class, please let me know in advance. The project is meant to simulate a real-world AGILE methodology so you will need to be physically present to complete it in a randomly-assigned group.

For

Individual Projects

The individual projects will consist of two take-home cases. Once the lesson is covered, the brief and submission portal will be open. Students will have about a month to complete the individual project, which will be due shortly after the midterms.

Links - TBD

Midterm and Finals and Policy Regarding Make-up Exams

The midterm is administered online, under Connect.

The final is administered in class, closed-book.

There will be no make-up midterm/finals examinations under any circumstances. If you are unable to make it due to extraordinary reasons, you need to inform me a week before the

actual date and I can make alternative arrangements at my discretion. If you miss the exams because of a medical or family emergency, you will need to provide valid documentation. In this case, I will decide how to grade you in lieu of the missed exam. **Your grades for the component will be entirely at my discretion if you are absent, with or without reason.**

Office Hours

Office hours are by appointment. If you are not coming to class / not making an effort and asking for office hours, I will decline your request. If you are actively participating, I am here for you every step of the way.

Academic Integrity and Cheating

I do not tolerate any form of violation of academic integrity. Please read the College's Academic Honesty website at https://provost.baruch.cuny.edu/academic-affairs/academic_honesty/. My policy is to give a grade of D or F to any assignment where I find cheating. In addition, I will submit a report to the Office of Dean of Students. This report becomes part of your permanent file.

Accommodations And Assurance of Learning

Please let me know if you have any disabilities and are requesting an accommodation. Please contact the Student Disability Services (disability.services@baruch.cuny.edu). All discussions are confidential. Refer to <https://zicklin.baruch.cuny.edu/faculty-research/faculty-staff/assurance-of-learning/> for assurance of learning. Please let me know if you need any religious accommodations, and if you need any other help, such as mental health matters, family matters. For other academic support, please refer to SACC, Writing Center, Tools for Clear Speech, Counseling Center, NYC Well, and CIT language. Thank you.

BBA Learning Goals	Significant Part of Course	Moderate Part of Course	Minimal Part of Course	Not Part of Course
Analytical Skills	X			
Technology and Data Literacy	X			
Communication Skills: Oral			X	
Communication Skills: Written			X	
Civic Awareness and Ethical Decision-Making			X	
Global Awareness				X

<i>Assignments</i>	<i>Course Learning Goals</i>	<i>BBA Learning Goals</i>
Connect Assignments	Learn AIS and DA concepts in an academic and practical manner, and the underlying theory	Analytical Skills Civic Awareness and Ethical Decision-Making
Midterms	Solidify understanding of DA concepts and to gauge student's progress	Technology and Data Literacy
Finals	Solidify understanding of AIS concepts and to gauge student's progress	Technology and Data Literacy
Final Project	Trains students to apply the practical skills learnt in the class to a tangible, real-life project	Analytical Skills Communication Skills: Oral Communication Skills: Written