

# **Information Security Management**

MASY1-GC 3220-100| Fall 2022 | 9/02/2022 - 12/09/2022 | Fridays | 3 Credits Modality: In-Person

Course Site URL: https://brightspace.nyu.edu/d2l/home/196061

#### **General Course Information**

Name/Title: Anthony Candeias, Adjunct Instructor

NYU Email: adc7@nyu.edu

Class Meeting Schedule: 9/02/2022 - 12/09/2022 | Fridays / 2:00 pm - 4:35 pm ET

Class Location: Room:1021 Loc: Midtown Center

**Office Hours:** By appointment, please email to make one.

## **Description**

This course focuses on the importance of protecting data and information in today's digital world as related to strategy and policy, awareness, data classification, ownership and accountability, monitoring, and reporting. The course covers network components that comprise the environment, where the data are input, processed, and stored, and how the data travel through the Intranet, Extranet, and/or Internet. Upon completion of the course, students learn to assess the impact of data in the digital world, considering the steps that the Government, Corporations, and the Private Sector take to protect information assets. Students gain an understanding of components that comprise network security and how each component provides protection. They become familiar with preventative and detective tools such as anti-malware, ACL, virus protection, cryptography, intrusion detection, audit logs, and logical and physical controls and perform information risk assessments.

# **Prerequisites**

1240 - Information Technology and Data Analytics

#### **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Apply the key principles of information security to the value of data and technologies in the digital world
- Analyze different security frameworks used by Government, Corporations, and the Private Sector to protect digital asset
- Design a digitally secure environment to protect business information assets
- Justify how each digital security component provides protection from threats
- Support the decision to select and use preventive, detective, and responsive security elements
- Perform information security risk assessment to quantify and address high-risk occurrences

#### **Communication Methods**

Be sure to turn on your NYU Brightspace notifications and frequently check the "Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email. I will respond within 24 hours.

Credit students must use their NYU email to communicate. Non-degree students do not have NYU email addresses. Brightspace course mail supports student privacy and FERPA guidelines.



The instructor will use the NYU email address to communicate with students. All email inquiries will be answered within 24 hours.

Students have the opportunity to add their pronouns, as well as the pronunciation of their names, into Albert. Students can have this information displayed to faculty in Albert, Brightspace, and other NYU systems. Students can also opt-out of having their pronouns viewed by their instructors.

https://www.nyu.edu/students/student-information-and-resources/registration-records-and-graduation/forms-policies-procedures/change-of-student-information/pronouns-and-name-pronunciation.html

# Structure | Method | Modality

This course is in-person and will meet once a week on Friday. NYU Brightspace is the learning management system we will use.

Active learning experiences and small group projects are key components of the course. Assignments, papers, and exams will be based on course materials (e.g., readings, videos), lectures, and class discussions. Course sessions will be conducted synchronously on NYU Zoom, which you can access from the course site in NYU Brightspace.

This course is and will meet once a week on Friday, with assignments, announcements, and emails being sent through Brightspace. Zoom is the remote instruction platform used at NYU. Students are expected to check email and/or Brightspace at least twice a week for announcements concerning assignments, class changes or cancellations, and other important information. The course will involve lecture/discussions/forum discussions as well as case studies. Two major papers/projects are required that will both be done on an individual basis.

# **Expectations**

# **Learning Environment**

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

# **Participation**

You are integral to the learning experience in this class. Be prepared to actively contribute to class activities, group discussions, and work outside of class.]

#### Assignments and Deadlines

- Students are expected to complete individual readings and complete independent assignments during the course.
- Frequent and high-quality participation and notes for the in class discussions is required
- Readings, individual papers, teamwork, and class discussions will be assigned and graded weekly.
- The final case project will be announced at the beginning of the course, and it will be due by the end of the last class.
  - The purpose of the project is to provide students with a hands-on experience with the intricacies, complexities, planning, meeting requirements, making presentation, and project reporting. Having completed the project, students are



required to submit a final essay, and prepare a presentation, which includes a deck of the project and its expectations.

- All team members should contribute to the group projects. Submit a single paper (pdf or doc) for the team identifying which team member contributed to which part of the case. Include your team number, team members, and date, type each question and answers, and include in text and end references in the APA style. The team cases will be evaluated on both an individual and group level.
  - More details will be provided. All essays are to be written in the APA style.
- Please refer to the Course Outline below for Readings, Class Assignments, and Cases.
- Please review the Grading Policy below.

# Course Technology Use

We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of Zoom. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes.

## **IT Service Desk**

(212)-998-3333

24 hours a day, 7 days a week

Email: AskIT@nyu.edu

# **Zoom Support**

- NYU Zoom Guide for Students
- Make sure you are using NYU Zoom to log-in for class
- Check the <u>NYU Zoom site</u> often for updates. (To update Zoom, you can also open from your desktop and click menu, then "Check for Updates.")

# **Brightspace Support**

- Log-in to the <u>Brightspace</u> platform or visit the <u>Student Training</u> website.
- Video on how to Navigate the Bright Space Learning Environment

# Feedback and Viewing Grades

I will provide timely meaningful feedback on all your work via our course site in NYU Brightspace. You can access your grades on the course site Gradebook.

#### Attendance

I expect you to attend all class sessions. Attendance will be taken into consideration when determining your final grade. Refer to the SPS Policies and Procedures page for additional information about attendance.

Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays:



https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

#### **Textbooks and Course Materials**

Students can purchase these items through the NYU Bookstore.

# • Required:

 Yuri Diogenes, Erdal Ozkaya, Cybersecurity – Attack and Defense Strategies – Second Edition Published 2019 - Pact Publishing. ISBN: 978-1-83882-779-3

# Recommended:

- Peter L. Bernstein, Against the Gods the Remarkable Story of Risk, John Wiley & Sons, Inc.; ISBN: 0471295639, Published: 1998
- (ISC)2 CERTIFIED INFORMATION SYSTEMS SECURITY PROFESSIONAL- CISSP Copyright 2018 John Wiley & Sons Inc. ISBN 978-1-119-47593-4
  - Recommended for those interested in achieving a Certification.

## **Grading | Assessment**

Your grade in this course is based on your performance on multiple activities and assignments. Since all graded assignments are related directly to course objectives and learning outcomes, failure to complete any assignment will result in an unsatisfactory course grade. All written assignments are to be completed using APA format and must be typed and double-spaced. Grammar, punctuation, and spelling will be considered in grading. Please carefully proofread your written assignments before submitting them for a grade. I will update the grades on the course site each time a grading session has been completed— typically three (3) days following the completion of an activity.

<u>DESCRIPTION</u>	<b>PERCENTAGE</b>
4 Group Presentations (20% Group grade & 20% Individual grade)	40%
Primary Posts in the Forum	10%
Subsequent Posts in the Forum	10%
Participation	10%
Final Group Presentation (15% group grade & 15% individual grade)	30%
TOTAL POSSIBLE	100%

See the <u>"Grades" section of Academic Policies</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.



# **NYU SPS Graduate Grading Scale**

A	95-100	4.000	<b>Exceptional</b> : Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.
Α-	90-94	3.667	<b>Excellent</b> : Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	Very Good; exceeds course standards: Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	Good; meets course standards: Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
B-	80-82	2.667	Somewhat Satisfactory; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement: Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.
С	73-76	2.000	Unsatisfactory; requires substantial improvement: Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	Unsatisfactory; requires extensive improvement: Demonstrates poor understanding of all learning outcomes and core concepts; requires extensive improvement.
F	Below 70		Fail: Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.

From NYU SPS Policies and Procedures

# **Course Outline**

**Start/End Dates:** 9/2/2022 - 12/9/2022

**Time:** 2:00 PM - 4:35 PM



# No Class Date(s): Friday, 11/25/22, Thanksgiving Recess

#### **Session 1 - 9/2**

Topic: Security Posture

Description: What is data and why should it be protected?

- The importance of data and why organizations must focus on protecting it
- How to begin by performing a data classification exercise
- Data Classification Types

## Assigned Readings:

• Read: Chapter 1 - Cybersecurity - Attack and Defense Strategies

#### Discussion:

• Select an industry you work for or desire to work in. What information would be the most important to protect specifically for that industry?

# Assignment(s):

• Complete discussion post and respond to at least 2 students - Due on 9-9-2022

# Additional Recommended/Optional Resources:

• <u>Data Classification: How to Classify Your Company's Data and Be Better Prepared for a Data-driven Future</u>

#### **Session 2 - 9/9**

Topic: Incident Response Process

Description: Reasons to have an IR Process

- Create an Incident response process
- Incident Response Life Cycle

#### Assigned Readings:

- Read: Chapter 2 Cybersecurity Attack and Defense Strategies
- Incident Response Plan 101

#### Discussion:

• How does the incident response impact the business? Why does this make a positive impact on the organization?

#### Assignment(s):

- Complete discussion post and respond to at least 2 students Due on 9-16-2022
- Group Project Create a PowerPoint presentation outlining an IR plan, select a business or industry and outline an incident response plan. Due on 9-16-2022
  - What documents need to be created?
  - Who are the key stakeholders involved in the incident response process?
  - What training is required to educate staff across the organization?

#### Additional Recommended/Optional Resources:

How to Create a Cybersecurity Incident Response Plan



#### **Session 3 - 9/16**

Topic: Understanding the Cybersecurity Kill Chain

Description: Diving deep into the tools that attackers will use to breach your organization

- Access and privilege escalation
- Exfiltration

#### Assigned Readings:

- Read: Chapter 3 Cybersecurity Attack and Defense Strategies
- Cyber Kill Chain® | Lockheed Martin

#### Discussion:

• How can the Cybersecurity Kill chain be used to mature the incident response process?

## Assignment(s):

• Complete discussion post and respond to at least 2 students - Due on 9-23-2022

# Additional Recommended/Optional Resources:

• <u>Intelligence-Driven Computer Network Defense Informed by Analysis of Adversary</u> Campaigns and Intrusion Kill Chains

#### **Session 4 – 9/23**

Topic: Reconnaissance & Compromising the System

Description: Understanding how attackers go from start to finish in the attack lifecycle

- External and Internal reconnaissance
- Analyzing current trends

#### Assigned Readings:

- Read: Chapter 4 & 5 Cybersecurity Attack and Defense Strategies
- OSINT: How to find information on anyone

#### Discussion:

How does OSINT Present a risk to your own personal security?

#### Assignment(s):

- Complete discussion post and respond to at least 2 students Due on 9-30-2022
- Group Project Create a PowerPoint presentation researching a CVE (Common Vulnerabilities and Exposures) that has been released in the last 2 years. Due on 9-30-2022
  - o How was the CVE discovered?
  - o How does the CVE work?
  - How would this impact an organization?

#### Additional Recommended/Optional Resources:

What is Open-Source Intelligence (OSINT)?

# **Session 5 - 9/30**

Topic: Chasing a User's Identity

Description: Strategies for compromising a user's identity

Hacking a user's identity



Analyzing current trends

# Assigned Readings:

• Read: Chapter 6 - Cybersecurity - Attack and Defense Strategies

#### Discussion:

• Research the strategies businesses impose to protect identities, use Google, Facebook, Apple as examples to understand how they protect their customer's users accounts.

## Assignment(s):

• Complete discussion post and respond to at least 2 students - Due on 10-7-2022

# Additional Recommended/Optional Resources:

• It's a great day to secure your Apple and iCloud accounts

#### **Session 6 – 10-7**

Topic: Lateral Movement & Privilege Escalation

Description: Performing lateral movement & privilege escalation

- Infiltration
- Avoiding alerts

# Assigned Readings:

• Read: Chapter 7 & 8 - Cybersecurity - Attack and Defense Strategies

#### Discussion:

• Research the strategies businesses impose to protect identities, use Google, Facebook, Apple as examples to understand how they protect their customer's users accounts.

#### Assignment(s):

Complete discussion post and respond to at least 2 students - Due on 10-14-2022

# Additional Recommended/Optional Resources:

• Russian State Hackers Take Minutes to Move Laterally

#### Session 7 - 10/14

Topic: Security Policy

Description: Reviewing your security policy

- Policy enforcement
- Monitoring for compliance

#### Assigned Readings:

• Read: Chapter 9 - Cybersecurity - Attack and Defense Strategies

#### Discussion:

• How do you create security awareness in an organization? What type of campaigns would you launch in an organization to make people aware of the risks the business face?

#### Assignment(s):



- Complete discussion post and respond to at least 2 students Due on 10-21-2022
- Group Project Create a PowerPoint presentation around Security Policy strategy. Due on 10-21-2022
  - What policies are required for the business?
  - What is contained in those policies?
  - What is unique in your policies based on your industry?

## Additional Recommended/Optional Resources:

- Security Awareness Campaigns in Your Company
- How to create an effective security policy: 6 tips

#### Session 8 - 10/21

Topic: Network Segmentation & Detection capabilities Description: Detection capabilities for identifying threats

• Intrusion detection systems vs Intrusion prevention system

## Assigned Readings:

• Read: Chapter 10-11 - Cybersecurity - Attack and Defense Strategies

#### Discussion:

Research the common security tools which would be deployed to protect cloud workloads.
 Identify the top 3 tools you would recommend your organization to implement to protect systems from attackers.

# Assignment(s):

• Complete discussion post and respond to at least 2 students - Due on 10-28-2022

# Additional Recommended/Optional Resources:

- What is a WAF?
- Amazon GuardDuty vs Inspector: which one should you use?
- Google Security Command Center
- Microsoft Azure Security Center

#### **Session 9 – 10/28**

Topic: Threat Intelligence

Description: Introduction to threat intelligence

- Open-source tools for threat intelligence
- Leveraging threat intelligence to investigate suspicious activity

#### Assigned Readings:

• Read: Chapter 12 - Cybersecurity - Attack and Defense Strategies

#### Discussion:

• Research two industries and compare how the threat intelligence programs might be different. Example how much threat intel different from an airline program compared to a bank threat intel program.



## Assignment(s):

• Complete discussion post and respond to at least 2 students - Due on 11-4-2022

# Additional Recommended/Optional Resources:

• 4 Simple Steps for an Effective Threat Intelligence Program

#### Session 10 - 11/4

Topic: Investigating an Incident

Description: Investigating a compromised system on-premises and cloud

- Triaging the scope of the incident
- Lessons Learned

#### Assigned Readings:

• Read: Chapter 13 - Cybersecurity - Attack and Defense Strategies

#### Discussion:

• Create a checklist of the top 10 items you would need to triage during a cloud security event.

# Assignment(s):

- Complete discussion post and respond to at least 2 students Due on 11-11-2022
- Group Project Create a PowerPoint presentation around Security Policy strategy. Due on 11-11-2022
  - Research the common incidents which have occurred in the cloud. Document which party is at fault in the incident (Cloud Provider or customer) and how it was remediated.

#### Additional Recommended/Optional Resources:

• AWS - Shared Responsibility Model

#### Session 11 - 11/11

Topic: Recovery Process

Description: Forming a disaster team and process

- Prioritizing processes and operations
- Determining recovery strategies

#### Assigned Readings:

• Read: Chapter 14 - Cybersecurity - Attack and Defense Strategies

Discussion: Select an industry you work for or desire to work in. What key employees would be involved in the Recovery Process?

#### Assignment(s):

• Complete discussion post and respond to at least 2 students - Due on 11-18-2022

### Additional Recommended/Optional Resources:

• 4 Disaster Recovery Plan Examples and 10 Essential Plan Items



#### Session 12 - 11/18

Topic: Vulnerability Management

Description: Creating a vulnerability management strategy

- Analysis of policies and procedures
- Reporting and remediation tracking

#### Assigned Readings:

• Read: Chapter 15 - Cybersecurity - Attack and Defense Strategies

Discussion: Select an industry you work for or desire to work in. How do you prioritize vulnerabilities discovered in the organization? What are the criteria's used to make the determination?

# Assignment(s):

- Complete discussion post and respond to at least 2 students Due on 12-2-2022
- Final Project Topic selection Due on 12-2-2022
- **Final Project** Due on 12-9-2022

Additional Recommended/Optional Resources:

What is Vulnerability Management?

#### Session 13 – 12/2

Topic: Log Analysis

Description: How do organizations use logs to detect threats?

- Which log sources are important?
- What logic should be used to create alerts?

#### Assigned Readings:

• Read: Chapter 16 - Cybersecurity - Attack and Defense Strategies

Discussion: Select an industry you work for or desire to work in. Your tasked with building out a log analysis program in the business. What is the first log source you would want to capture and what activity would you look for?

# Assignment(s):

- Complete discussion post and respond to at least 2 students Due on 12-9-2022
- Final Project Due on 12-9-2022

Additional Recommended/Optional Resources:

- The Ultimate Guide to Windows Event Logging
- What is AWS CloudTrail logs?
- Understanding the Apache Access Log: View, Locate and Analyze
- Linux Logs Explained
- A beginner's guide to SQL Server transaction logs

# Session 14 - 12/9

Topic: Final Project Presentation

Description: In this session, you will present your final project. Additionally, you will learn from their presentations as each student explains their research.



# Assignment(s):

- Complete discussion post and respond to at least 2 students Due on 12-9-2022
- Final Project
  - Research enterprises that have been recently compromised, ensure there is enough publicly available information to complete the following tasks.
  - Once client/organization is selected one member of the team should post a new thread in the "Group Project" with the client and team members. This is to ensure no duplicate topics are selected.
  - The following assignment will require you to work in groups no more than 3-4 members in a team.
  - Teams will need to produce 2 items a research paper and PowerPoint. As per NYU
     Policy the documents should make clear which student was responsible for each part.

     Each student should play a part in each of the tasks Research paper, PowerPoint,
     and presentation Every member will need to speak during the presentation.
  - The research paper should be in-depth into the theory of the information security incident, the failure of security controls, and recommendations to remediate the information security issues. Length of the research paper should be 10-12 pages double-spaced, in MLA format.
  - PowerPoint slides should summarize all the major points in the research paper into a 15–20-minute presentation.

#### NOTES:

The syllabus may be modified to better meet the needs of students and to achieve the learning outcomes.

The School of Professional Studies (SPS) and its faculty celebrate and are committed to inclusion, diversity, belonging, equity, and accessibility (IDBEA), and seek to embody the IDBEA values. The School of Professional Studies (SPS), its faculty, staff, and students are committed to creating a mutually respectful and safe environment (*from the SPS IDBEA Committee*).

#### **New York University School of Professional Studies Policies**

- 1. <u>Policies</u> You are responsible for reading, understanding, and complying with University Policies and Guidelines, NYU SPS Policies and Procedures, and Student Affairs and Reporting.
- 2. <u>Learning/Academic Accommodations</u> New York University is committed to providing equal educational opportunity and participation for students who disclose their dis/ability to the Moses Center for Student Accessibility. If you are interested in applying for academic accommodations, contact the Moses Center as early as possible in the semester. If you already receive accommodations through the Moses Center, request your accommodation letters through the Moses Center Portal as soon as possible (mosescsa@nyu.edu | 212-998-4980).
- 3. <u>Health and Wellness</u> To access the University's extensive health and mental health resources, contact the NYU Wellness Exchange. You can call its private hotline (212-443-9999), available 24 hours a day, seven days a week, to reach out to a professional who can help to address day-to-day challenges as well as other health-related concerns.



- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the NYU SPS Office of Student Affairs site.
- 5. <u>Religious Observance</u> As a nonsectarian, inclusive institution, NYU policy permits members of any religious group to absent themselves from classes without penalty when required for compliance with their religious obligations. Refer to the University Calendar Policy on Religious Holidays for the complete policy.
- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus, recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

Turnitin, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.

Read more about academic integrity policies at the NYU School of Professional Studies on the Academic Policies for NYU SPS Students page.

7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.

These services may require you to create an account, but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.



# **Strategic Marketing**

MASY1-GC 1230-201| Fall 2022 | 9/07/2022 - 12/14/2022 | Wednesdays | 3 Credits Modality: Online Synchronous Course Site URL: https://brightspace.nyu.edu/d2l/home/195990

#### **General Course Information**

Name/Title: Myron Gould, Adjunct Assistant Professor

NYU Email: mg38@nyu.edu

Class Meeting Schedule: 9/07/2022 - 12/14/2022 | Wednesdays / 8:00 am - 10:35 am ET

Class Location: Online

Office Hours: Before or after class, or any other time of mutual convenience. Contact me via email

to make an appointment.

#### **Description**

This course provides a thorough understanding of the strategic marketing process, from analyzing customer needs, to developing products and services, integrated communications, taking them to market, order fulfillment, and successfully managing customer relationships. Topics include the marketing mix and the holistic marketing concept, marketing research and forecasting, environmental analysis, market segmentation, customer relationship management, brand equity, managing marketing programs, integrated marketing communications, online marketing, and return on marketing investments. In this course, students explore and analyze marketing strategies that are integrated across the organization and its customer touch points, the communications mix across distribution channels, and the customer lifecycle. They also learn how to optimize the core processes of the value chain, analyze the competitive environment, develop, and execute an integrated marketing communications mix, and formulate and implement marketing strategies for acquiring and retaining customers.

#### **Prerequisites**

N/A

#### **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Propose marketing alternatives applying emerging and traditional marketing approaches
- Differentiate between a customer-centric vs. a product-centric structure.
- Evaluate optimal target markets to maximize customer relationships
- Manage a product through its life cycle of product development and global marketing
- Construct marketing plans and projects and evaluate results using appropriate marketing and communications B2C, B2B, and not-for-profit approaches

#### **Communication Methods**

Be sure to turn on your NYU Brightspace notifications and frequently check the "Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email. I will respond within 24 hours. PLEASE INCLUDE THE FOLLOWING IN THE SUBJECT OF EMAIL YOU SEND TO ME: "Strategic Marketing - 201"



Students must use their NYU email to communicate. Brightspace course mail supports student privacy and FERPA guidelines. The instructor will use the NYU email address to communicate with students. All email inquiries will be answered within 24 hours.

Students have the opportunity to add their pronouns, as well as the pronunciation of their names, into Albert. Students can have this information displayed to faculty in Albert, Brightspace, and other NYU systems. Students can also opt out of having their pronouns viewed by their instructors.

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# Structure | Method | Modality

This course is Online (Sy) and will meet once a week on Wednesday. We will use the Brightspace learning management system. Zoom is the online instruction platform used at NYU. All students should attend the course on time on the days we meet each week. You are expected to check email and/or NYU-Classes daily for announcements concerning assignments, exam dates, class changes or cancellations, and other important information. Sessions will be comprised of lectures by the Professor, robust, interactive class discussions and working with the "Mimic" Marketing Simulation. Subject matter lectures, the "Mimic" Marketing Simulation, PowerPoint presentations, video cases and course pack materials will be used to illustrate principles and stimulate thinking. All course assignments are listed in the syllabus. There is one group project in this course. Explicit details will be provided. Students will gain insight and understanding about how to plan marketing campaigns and will test their learning by interacting with the Mimic Marketing Simulation throughout the course. Frequent quizzes will help students and the Professor assess progress.

#### **Expectations**

#### Learning Environment

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

#### Participation

Participation means engaging productively to the discussion versus simply speaking in class or offering a random comment in the online forum; it also means actively listening and building on the questions and discussion points of your classmates. As graduate students, you are expected to conduct yourselves in a professional manner and engage and collaborate with your classmates.

- 1. Class participation will be used in determining a student's final grade. Students are expected to participate in Discussion Forums throughout each week.
- 2. Class participation is a vital part of the learning process for this class. Students are expected to be prepared to discuss the planned-for material as well as to participate in class activities and group activities "outside" of class as described in and inferred by this document. Students must be prepared to present their required presentations on-time there can be NO EXCEPTIONS to this requirement. Our schedule is too tight to allow for leeway
- 3. Grade may be impacted for each full or partial class session missed.



#### Assignments and Deadlines

See matrix at the bottom of this syllabus

# Course Technology Use

We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of Zoom. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes.

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(212)-998-3333

24 hours a day, 7 days a week

Email: AskIT@nyu.edu

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- Log-in to the Brightspace platform or visit the Student Training website.
- Video on how to Navigate the Bright Space Learning Environment

## Feedback and Viewing Grades

I will provide meaningful feedback on all your papers via our course site in NYU Brightspace. You will receive immediate assessment of your online work on the Stukent website.

#### Attendance

Students are expected to attend all class sessions. Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported no later than the first week of class. Recruiting activities, job interviews and incompatible travel plans, for example, are considered unexcused absences even if notification is given in advance.

Unexcused absences from sessions can have a negative impact on your final grade since you will miss important direction and instruction about how to complete the then current section of your marketing plan. Students are responsible for assignments given during any absence. Students are expected to keep cameras on and remain visible throughout each class. Mute microphones unless speaking.

Each unexcused absence may result in a student's grade being lowered by a fraction of a grade (+/-) for example, from a B to a B-. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays: <a href="https://www.nyu.edu/about/policies-guidelines-guidelines-guidelines-guidelines-guidelines-university-calendar-policy-on-religious-holidays.html">https://www.nyu.edu/about/policies-guidelines-gui

The course format requires students to attend class consistently, be prepared to participate in the presentation process, and participate in evaluating peers. Missing more than three class sessions can, at the discretion of the Professor, be cause for the student to have to drop the course or receive a grade of "F."



Students will receive credit for attendance only when they arrive to class on time and stay to the end of the class period. Students may enter class late or leave class early only if given permission by the instructor and if it can be done without disrupting the class.

Class standing for students who miss more than one class session will be subject to review. Entering a class "late" constitutes ½ of a class session missed.

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus. Refer to the SPS Policies and Procedures page for additional information about attendance.

#### **Textbooks and Course Materials**

Gould Course Pack - found on Google drive

Digital Text – "Marketing Management Today" which can be accessed at <a href="http://home.stukent.com">http://home.stukent.com</a>.

Mimic Simulation - which can be accessed at http://home.stukent.com.

## **Grading | Assessment**

Your grade in this course is based on your performance on multiple activities and assignments. Since all graded assignments are related directly to course objectives and learning outcomes, failure to complete any assignment will result in an unsatisfactory course grade. All written assignments are to be completed using APA format and must be typed and double-spaced. Grammar, punctuation, and spelling will be considered in grading. Please carefully proof-read your written assignments before submitting them for a grade.

You will automatically be graded online for textbook quizzes and all assignments you are to complete for the Mimic Simulation. YOU WILL NOT BE ABLE TO REDO ANY OF THE ONLINE QUIZZES AND ASSIGNMENTS SO CAREFULLY REVIEW YOUR WORK PRIOR TO SUBMISSION.

IMPORTANT: It serves no purpose to complete online assignments in advance of their due date. History has shown that students who prepare the work prior to the stated due date often earn a lower grade because they did not have the advantage of correlating their assignments with the class activities designed to supplement student knowledge.

I have provided a Grading Guide for each paper you will prepare for this course. Your grade for each paper you will prepare will reflect how well your work conforms to the expectations set forth in the Grading Guide for the paper. I will attach a completed Grading Guide to the beginning of each paper you submit, showing the grade you earned. The paper will then be uploaded to your personal assignments folder on Brightspace. It is possible to receive a paper where I did not include the grading guide. Instead, you will find written comments and the grade you earned at the beginning of the paper. I will make every effort to return papers within one week after you submit them. There are times when I cannot meet this schedule. In such cases, I will return the papers as soon as I can finish grading them.

You will earn an individual grade for the work you do on the Group Assignment. Each member of a group could potentially earn a different grade. Grading for a Group Assignment reflects the work you personally did to help the group effort.



<u>DESCRIPTION</u> <u>PERCENTAGE</u>

Individual: Class Participation	14%
Marketing Management Today – 11 Chapter Quizzes	22%
Mimic Simulation – 8 Modules	40%
You must submit Peer Evaluations to have your Final Paper graded	
Group Project Presentation described above	24%
Total	100%

See the <u>"Grades" section of Academic Policies</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.

# **NYU SPS Graduate Grading Scale**

A	95-100	4.000	<b>Exceptional</b> : Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.
<b>A</b> -	90-94	3.667	<b>Excellent</b> : Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	Very Good; exceeds course standards: Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	Good; meets course standards: Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
B-	80-82	2.667	Somewhat Satisfactory; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement: Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.
С	73-76	2.000	Unsatisfactory; requires substantial improvement: Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	Unsatisfactory; requires extensive improvement: Demonstrates poor understanding of all



		learning outcomes and core concepts; requires extensive improvement.
F	Below 70	<b>Fail</b> : Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.

From NYU SPS Policies and Procedures

#### **Course Outline**

**Start/End Dates:** 9/07/2022 - 12/14/2022 | Wednesdays

Time: 8:00 am - 10:35 am ET

No Class Date(s): No class date: Wednesday, 11/23/22, Fall Break

Special Notes: N/A

# SESSION 1

# **Session Topics:**

Introduction to Course and Course Materials.

Lecture: PowerPoint - Mission, PowerPoint - Industry Analysis

#### **Session Preparation:**

Read materials in Mission Statement and Industry Analysis folders on the Google drive. Read

Chapter 1 in the text

**Session Tasks:** 

Complete Chapter 1 Quiz in text.

#### **SESSION 2**

# **Session Topics:**

Introduce Group Project.

Lecture: Competitor Analysis and Key

Success Factors Matrix **Session Preparation:** 

Read materials in Competitor Analysis and Key Success Factors Matrix folders on the Google

Drive.

#### **Session Tasks:**

Activate your StuKent Account.

#### SESSION 3

#### **Session Topics:**

Lecture: Challenges and SWOT Analysis

#### **Session Preparation:**

Read materials in the Challenges and SWOT Analysis Folders on the Google drive.

# **Session Tasks:**

Watch the Introduction Video in Chapter 1. Complete all Chapter tasks.

#### SESSION 4

#### **Session Topics:**

Lecture: Position Statement and Market Segmentation

# **Session Preparation:**



Read Materials in Position Statement and Market Segmentation folders on the Google drive.

Read Chapter 2 and Chapter 3 in the Text.

**Group Project Phase 1:** Research Survey Introduction, Conduct Research

**Session Tasks:** 

View "Branding Introduction Video" in Chapter 2.

Complete Chapter 2 Quiz in text.

View the Expert Session video "Developing Brand Voice" in Chapter 2

View the Expert Session video "How to grow your brand with Influencer Marketing" in Chapter 3.

Complete Chapter 3 Quiz in text.

## **SESSION 5**

**Session Topics:** 

Lecture: Marketing to Business Customers Group Project Phase 1: Conduct research

Read Chapter 4 in the Text.

**Session Tasks:** 

View "Customers Introduction Video" in Chapter 4.

View the Expert Session video "Advancing Your Buyer's Journey through Video" in Chapter 4.

Complete Chapter 4 Quiz in text.

### **SESSION 6**

**Session Topics:** 

Lecture Part 1: Product

**Group Project Phase 1:** Conduct research

**Group Project Phase 3:**Submit Business Category

Session Tasks: No tasks assigned.

Simulation Module: Complete Mimic Round 1

#### SESSION 7

Lecture Part 1: Channel Systems

Lecture Part 2: Logistics and Customer Service

Group Project Phase 1: Complete Research, upload results

**Session Preparation:** Read Chapter 5 in the text.

**Session Tasks:** 

View video "Customers Company Example Video" in Chapter 5.

View the Expert Session video "How to Generate 1000s of Leads Using Social Media" in

Chapter 5.

Complete Chapter 5 Quiz in text.

Simulation Module: Complete Mimic Round 2

# **SESSION 8**

### **Session Topics:**

Read/Review materials in the **Promotion PowerPoints** folder on the Google drive.

## **Session Preparation:**

Read Chapter 6 in the text.

Review the PowerPoint in the Product folder on the Google drive.



#### **Session Tasks**

View video "Products Introduction Video" in Chapter 6

View the Expert Session video "World of Retail: Marketing and Distribution" in Chapter 6.

Complete Chapter 6 Quiz in text.

View video "How Companies Develop Products" in Chapter 7.

Simulation Module: Complete Mimic Round 3

#### **SESSION 9**

**Session Topics:** 

**Lecture:** Promotion Tools

Group Project Phase 1: Receive Research Raw Data

**Group Project Phase 2:** Begin Analysis and Presentation Materials

**Session Preparation:** 

Read/Review materials in the **Promotion PowerPoints** folder on the Google drive.

Read Chapter 7 in the text.

**Session Tasks:** 

View the video "Keyword Research 101 - Part 1 in Chapter 7.

View the video "Keyword Research 101 - Part 2 in Chapter 7.

Complete Chapter 7 Quiz in text.

Simulation Module: Complete Mimic Round 4

# **SESSION 10**

**Session Topics:** 

**Lecture:** Promotion Tools

**Group Project Phase 2:** Complete Analysis and Presentation Materials

**Group Project Phase 3:** 

Prepare Marketing Plan Session Preparation:

Read Chapter 8 in the text.

Read the four articles in the **Promotion Articles and Notes** folder on the Google drive.

#### **Session Tasks:**

View the video "Communications Introduction Video" in Chapter 8.

View the Expert Session video "Why Digital Marketing Analytics?" in Chapter 8.

Complete Chapter 8 Quiz in text.

Simulation Module: Complete Mimic Round 5

#### SESSION 11

#### **Session Topics:**

Lecture: Promotion Tools - SRDS, Promotion Plan Spreadsheet, Developing a Testing Plan

**Group Project Phase 3:** Prepare Marketing Plan

**Session Preparation:** 

Read Chapter 9 in the text.

#### **Session Tasks:**

View the video "Communications Company Example Video" in Chapter 9.

View the Expert Session video "6-Step Framework to a Profitable SEO-Optimized Content Strategy" in Chapter 9.

Complete Chapter 9 Quiz in text.

Simulation Module: Complete Mimic Round 6



#### SESSION 12

**Session Topics:** 

**Group Project Phase 2:** 

Research Survey Data Analysis Presentations **Group Project Phase 3:** Prepare Marketing Plan

Session Preparation: Read Chapter 10 in the text.

**Session Tasks:** 

View the video "Technology Introduction Video" in Chapter 10.

View the video "How to Leverage Data to Optimize Marketing Automation" in Chapter 10.

Complete Chapter 10 Quiz in text.

Simulation Module: Complete Mimic Round 7

#### **SESSION 13**

**Session Topics:** 

**Group Project Phase 2:** 

Research Survey Data Analysis Presentations **Group Project Phase 3:** Prepare Marketing Plan

**Session Preparation:** 

Read Chapter 11 in the text.

**Session Tasks:** 

View the "Technology Company Example Video" in Chapter 11.

View the Expert Session video "Introduction to Web Analytics" in Chapter 11.

Complete Chapter 11 Quiz in text.

Simulation Module: Complete Mimic Round 8

#### **SESSION 14**

**Session Topics:** 

**Group Project Phase 3: Present Marketing Plan** 

Final Group Project Due by 12:00 Midnight, 12/07/22. includes Word document, Excel Workbook PowerPoint Presentation—Posted to the File Drop Box on the Brightspace Web site and sent to Professor via email. Peer Reviews must be sent to Professor individually by each student via email.

j	Session Topics	Session Preparation	Session Tasks	Simulation Modules
Session 1 09/07/22 Foundation	Introduction to Course and Course Materials. <b>Lecture:</b> Mission Statement, Industry Analysis	Read/Review materials in corresponding folders on the Google drive. Read Chapter 1 in the text	Complete Chapter 1 Quiz in text. Activate your StuKent account.	
Session 2 09/14/22 Foundation	Lecture: Competitor Analysis and Key Success Factors Matrix	Read/Review materials in corresponding folders on the Google drive.		



Session 3 09/21/22 Situation Analysis	Lecture: Challenges and SWOT Analysis Group Project: Assign Groups	Read/Review materials in corresponding folders on the Google drive.		
Session 4 09/28/22 Situation Analysis	Lecture: Position Statement, Market Segmentation Group Project Phase 1: Research Survey Introduction, Conduct Research	Read/Review materials in corresponding folders on the Google drive. Read Chapter 2 and Chapter 3 in the Text.	View "Branding Introduction Video" in Chapter 2. Complete Chapter 2 Quiz in text. View the Expert Session video "Developing Brand Voice" in Chapter 2 View the Expert Session video "How to grow your brand with Influencer Marketing" in Chapter 3. Complete Chapter 3 Quiz in text.	

	Session Topics	Session Preparation	Session Tasks	Simulation Modules
Session 5 10/05/22 Product and Place	Lecture: Marketing to Business Customers Group Project Phase 1: Conduct research	Read/Review materials in corresponding folders on the Google drive. Read the articles in the Promotion Articles and Notes folder. Read Chapter 4 in the Text.	View "Customers Introduction Video" in Chapter 4. View the Expert Session video "Advancing Your Buyer's Journey through Video" in Chapter 4. Complete Chapter 4 Quiz in text.	
Session 6 10/12/22 Product and Place	Lecture Part 1: Product Group Project Phase 1: Conduct research Group Project Phase 3: Submit Business Category	Read/Review materials in corresponding folders on the Google drive.		Complete Mimic Round 1



Session 7 10/19/22 Promotion	Lecture Part 1: Channel Systems Lecture Part 2: Logistics and Customer Service Group Project Phase 1: Complete Research, upload results	Read Chapter 5 in the text.	View video "Customers Company Example Video" in Chapter 5. View the Expert Session video "How to Generate 1000s of Leads Using Social Media" in Chapter 5. Complete Chapter 5 Quiz in text.	Complete Mimic Round 2
Session 8 10/26/22 Promotion	Lecture Part 1: Promotion Basics	Read/Review materials in the <b>Promotion PowerPoints</b> folder on the Google drive. Read Chapter 6 in the text.	View video "Products Introduction Video" in Chapter 6 View the Expert Session video "World of Retail: Marketing and Distribution" in Chapter 6. Complete Chapter 6 Quiz in text. View video "How Companies Develop Products" in Chapter 7.	Complete Mimic Round 3
Session 9 11/02/22 Promotion	Lecture: Promotion Tools Group Project Phase 1: Receive Research Raw Data Group Project Phase 2: Begin Analysis and Presentation Materials	Read/Review materials in the <b>Promotion PowerPoints</b> folder on the Google drive. Read Chapter 7 in the text.	View the video "Keyword Research 101 - Part 1 in Chapter 7. View the video "Keyword Research 101 - Part 2 in Chapter 7. Complete Chapter 7 Quiz in text.	Complete Mimic Round 4
Session 10 11/09/22 Promotion	Lecture: Promotion Tools Group Project Phase 2: Complete Analysis and Presentation Materials Group Project Phase 3: Prepare Marketing Plan	Read the four articles in the <b>Promotion Articles and Notes</b> folder on the Google drive. Read Chapter 8 in the text.	View the video "Communications Introduction Video" in Chapter 8. View the Expert Session video "Why Digital Marketing Analytics?" in Chapter 8. Complete Chapter 8 Quiz in text.	Complete Mimic Round 5



Session 11 11/16/22 Final Paper	Lecture: Promotion Tools - SRDS, Promotion Plan Spreadsheet, Developing a Testing Plan Group Project Phase 3: Prepare Marketing Plan	Read Chapter 9 in the text.	View the video "Communications Company Example Video" in Chapter 9. View the Expert Session video "6-Step Framework to a Profitable SEO- Optimized Content Strategy" in Chapter 9. Complete Chapter 9 Quiz in text.	Complete Mimic Round 6
Session 12 11/23/22 Final Paper	Group Project Phase 2: Research Survey Data Analysis Presentations Group Project Phase 3: Prepare Marketing Plan	Read Chapter 10 in the text.	View the video "Technology Introduction Video" in Chapter 10. View the video "How to Leverage Data to Optimize Marketing Automation" in Chapter 10. Complete Chapter 10 Quiz in text.	Complete Mimic Round 7

	Session Topics	Session Preparation	Session Tasks	Simulation Modules
Session 13 11/30/22 Final Paper	Lecture: Marketing Metrics PowerPoint, Lifetime Value Calculator - We will use the "working model" in the Folder Group Project Phase 3: Complete Marketing Plan	Read Chapter 11 in the text.	View the "Technology Company Example Video" in Chapter 11. View the Expert Session video "Introduction to Web Analytics" in Chapter 11. Complete Chapter 11 Quiz in text.	Complete Mimic Round 8
Session 14 12/07/22	Group Project Phase 3: Present Marketing Plan			

# **NOTES:**

The syllabus may be modified to better meet the needs of students and to achieve the learning outcomes.



The School of Professional Studies (SPS) and its faculty celebrate and are committed to inclusion, diversity, belonging, equity, and accessibility (IDBEA), and seek to embody the IDBEA values. The School of Professional Studies (SPS), its faculty, staff, and students are committed to creating a mutually respectful and safe environment (*from the SPS IDBEA Committee*).

# **New York University School of Professional Studies Policies**

- 1. <u>Policies</u> You are responsible for reading, understanding, and complying with University Policies and Guidelines, NYU SPS Policies and Procedures, and Student Affairs and Reporting.
- 2. <u>Learning/Academic Accommodations</u> New York University is committed to providing equal educational opportunity and participation for students who disclose their dis/ability to the <u>Moses Center for Student Accessibility</u>. If you are interested in applying for academic accommodations, contact the <u>Moses Center</u> as early as possible in the semester. If you already receive accommodations through the <u>Moses Center</u>, request your accommodation letters through the <u>Moses Center Portal</u> as soon as possible (<u>mosescsa@nyu.edu</u> | 212-998-4980).
- 3. <u>Health and Wellness</u> To access the University's extensive health and mental health resources, contact the NYU Wellness Exchange. You can call its private hotline (212-443-9999), available 24 hours a day, seven days a week, to reach out to a professional who can help to address day-to-day challenges as well as other health-related concerns.
- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the NYU SPS Office of Student Affairs site.
- 5. <u>Religious Observance</u> As a nonsectarian, inclusive institution, NYU policy permits members of any religious group to absent themselves from classes without penalty when required for compliance with their religious obligations. Refer to the University Calendar Policy on Religious Holidays for the complete policy.
- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus, recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

Turnitin, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.

Read more about academic integrity policies at the NYU School of Professional Studies on the Academic Policies for NYU SPS Students page.

7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.



These services may require you to create an account, but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.



# Strategic Management of Technological Innovation

MASY1-GC 3310-103| Fall 2022 | 9/06/2022 - 12/13/2022 | Tuesdays | 3 Credits Modality: In-Person Course Site URL: https://brightspace.nyu.edu/

#### **General Course Information**

Name/Title: Frederick Kauber, Adjunct Instructor

NYU Email: Fred.Kauber@nyu.edu

Class Meeting Schedule: 9/06/2022 - 12/13/2022 | Tuesdays / 6:20 pm - 8:55 pm ET

Class Location: Bldg: 7E12 Rm: LL27

Office Hours: Zoom or Phone Monday – Friday between 9 am ET and 4 pm ET. Please email me

to schedule an appointment. In an emergency, please call my mobile on 914-953-3127.

#### **Description**

This course prepares students to meet the demands of strategic planning in a technology-driven organization. It addresses optimizing the R&D (Research and Development) cycle, smooth transition from design to production, innovation streams, and integration of technology with business strategy. Focusing on case studies, students learn real-world technology decision-making strategies, including allocation of resources, managing complex technology initiatives, and management of technology teams. The course examines the role technological innovations play in the competitive dynamics of industries and the use of metrics to evaluate new product effectiveness and innovation performance. Students create individual proposals for applications of technological innovations to address business needs.

# **Prerequisites**

N/A

#### **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Apply innovation concepts to the management of technological innovation
- Apply analysis tools to determine the success potential of applying an innovation
- Apply an emerging technology to create economic benefit for an organization
- Design intellectual property protection strategies for the created innovations
- Create metrics to increase the success rate of technological innovation application projects

#### **Communication Methods**

Be sure to turn on your <u>NYU Brightspace notifications</u> and frequently check the "Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email.

Credit students must use their NYU email to communicate. Non-degree students do not have NYU email addresses. Brightspace course mail supports student privacy and FERPA guidelines. The instructor will use the NYU email address to communicate with students. All email inquiries will be answered. Both students and the instructor expect and deserve ongoing and timely feedback! "Only the sender is responsible for receipt of a communication."

All email communications **MUST** be sent from an NYU email account and receipt must be confirmed within 24 hours. If the sender does not receive a confirmation, they should assume that



the email was not received and should either resend the email or otherwise contact the intended recipient. The email of record is available on both the sender's and recipient's netID@nyu.edu account. Non-degree students do not have NYU email addresses. Brightspace course-mail supports student privacy and FERPA guidelines.

Students have the opportunity to add their pronouns, as well as the pronunciation of their names, into Albert. Students can have this information displayed to faculty in Albert, Brightspace, and other NYU systems. Students can also opt out of having their pronouns viewed by their instructors.

https://www.nyu.edu/students/student-information-and-resources/registration-records-and-graduation/forms-policies-procedures/change-of-student-information/pronouns-and-name-pronunciation.html

# Structure | Method | Modality

This course is In-person and will meet once a week on Tuesday. Zoom is the online instruction platform used at NYU. Brightspace is the learning management system we will use for assignments, announcements, and emails. Students are expected to participate in all class sessions **including in class work using a laptop or tablet computer**. They are expected to check Brightspace, and their NYU email accounts at least once every day for changes to course meetings and/or assignments, how and when students will meet for class sessions or group work, whether the course will involve lecture or discussion, team projects, and so forth.

Students will develop a solid foundation in the strategic management of technological innovation by first understanding the industry dynamics of technological innovation, then learning how to formulate a technological innovation strategy, and then practicing its implementation. Most importantly they will also understand and have confidence in what they know and what else they need to know to practice at a higher professional level.

Prior to starting the course, students should be able to:

- Understand the basics of probability, statistics and decision—making
- Quickly search for, identify and then retrieve high-quality information
- Use Microsoft Word to write briefing reports, study guides, papers, etc., including citations and references in APA style, according to a predefined specification
- Use Microsoft Excel to analyze data, prepare tables and charts and insert them into documents

Active learning experiences and small group projects are key components of the course. Assignments, papers, and exams will be based on course materials (e.g., readings, videos), lectures, and class discussions. Course sessions will be conducted synchronously on NYU Zoom, which you can access from the course site in NYU Brightspace.

#### **Expectations**

#### Learning Environment

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

#### Participation

You are integral to the learning experience in this class. Be prepared to actively contribute to class activities, group discussions, and work outside of class. It is required that students attend



all classes and are part of the group case studies that will take place in class. Each student is expected to contribute to the in-class discussions. Each session will require students to read the case studies prior to that session. Each student is required to contribute her or his own ideas, opinions and feedback during group discussions of the case study. To better facilitate discussion and student engagement, the class might be divided into groups for case analysis. Note that these groups will not remain static and will change during the semester.

- There will be 2 individual assignments on the specific topic(s) covered in the related classes.
- There will be 2 team case studies on the specific topics selected by the instructor.
- There will be a final case study centered on the specific industry selected by a team of students where students will design a plan for technological innovation, perform the study, and present the findings. This is intended as a team exercise but based on individual interest could be an individual project.
- Length of Assignments and Cases (excluding cover page and end reference page)
  - Assignments should be between 400 and 600 words
  - o Case Studies should be between 600 and 800 words
  - Length of Final Case Study (excluding cover page and end reference page)
    - The final case study should of the length sufficient to present feasible innovative solution to the problem.
  - Late Submissions
    - Assignments submitted late will not be accepted. Students shall submit their assignments via Brightspace.

#### **Assignments and Deadlines**

Students are expected to complete individual readings and complete independent assignments during the course. Frequent and high-quality participation in class discussions is required. Readings, individual papers, teamwork, and class discussions will be assigned and graded weekly. The final case project will be announced at the beginning of the course, and it will be due by Class 14. The purpose of the project is to provide students with a hands-on experience with the intricacies, complexities, planning, meeting requirements, making presentation, and project reporting. Having completed the project, students are required to submit a final report, and prepare a presentation, which includes a deck of the project and its expectations. All team members should contribute to the case studies. Submit a single paper (pdf or doc) for the team identifying which team member contributed to which part of the case. Include your team number, team members, date, type each question and answers, and include in text and end references. The team cases will be evaluated on both an individual and group level. More details will be provided.

Please refer to the outline provided by the professor for Readings, Class Assignments and Cases. Please review the Grading Policy below.

# **Submission of Deliverables**

Delivery occurs when a student's work is available on the Brightspace Assignment folder for the course.

In the rare situation when a student believes they cannot meet a scheduled delivery date they should immediately contact the instructor and request for a modified delivery date. The request may or may not be granted depending on its content and the reason for not meeting the deadline. If granted, the student will receive a written agreed new delivery date (Notes: VERBAL



# DOESN'T COUNT, and there is a <u>50% penalty per day</u> for reception of your work beyond the originally ASSIGNED or AGREED NEW DUE DATE)

# Course Technology Use

Most class sessions are planned to be in person, but any necessary remote sessions require use of Zoom. All class sessions require a network device such as iPad or Laptop with audio capabilities to participate in the classes. We will use Zoom technology for any online sessions. Each student will be required to perform research, type the assignments, and submit them to the instructor via NYU's website.

#### IT Service Desk

(212)-998-3333

24 hours a day, 7 days a week

Email: AskIT@nyu.edu

# **Zoom Support**

- NYU Zoom Guide for Students
- Make sure you are using <u>NYU Zoom</u> to log-in for class
- Check the <u>NYU Zoom site</u> often for updates. (To update Zoom, you can also open from your desktop and click menu, then "Check for Updates.")

## **Brightspace Support**

- Log-in to the Brightspace platform or visit the Student Training website.
- Video on how to Navigate the Bright Space Learning Environment

#### Feedback and Viewing Grades

I will provide timely meaningful feedback on all your work via our course site in NYU Brightspace. You can access your grades on the course site Gradebook.

#### Attendance

Students are expected to attend all on-line class sessions. Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

If for some reason (excused absence) you will not be in class, you must notify the instructor prior to the scheduled session if you will not be attending and the reason.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays:

https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

Refer to the SPS Policies and Procedures page for additional information about attendance.



#### **Textbooks and Course Materials**

#### Required Textbooks

1. Schilling, M. A. (2021). Strategic Management of Technological Innovation. **7**<sup>th</sup> Edition, McGraw-Hill Education. ISBN: 978-1-26408093-9

This book is a part of the Follett Access program. This is an NYU Bookstore initiative that delivers required course materials digitally at the lowest possible price. The book for this course <u>Strategic Management of Technological Innovation</u>, will be delivered to you digitally through the CONNECT platform. Here is the - <u>link</u>.

#### Bookstore contact info:

email - wsq.text@nyu.edu phone - 212-998-4656

# **Brief Table of Contents**

	Preface 1. Introduction	1
PART ONE	Industry Dynamics of Technological Innovation 2. Sources of Innovation 3. Types and Patterns of Innovation 4. Standards Battles and Design Dominance 5. Timing of Entry	13 15 45 69 95
PART TWO	Formulating Technological Innovation Strategy 6. Defining the Organization's Strategic Direction 7. Choosing Innovation Projects 8. Collaboration Strategies 9. Protecting Innovation	115 117 147 173 199
PART THREE	Implementing Technological Innovation Strategy 10. Organizing for Innovation 11. Managing the New Product Development Proce	225 ss
	<ul><li>12. Managing New Product Development Teams</li><li>13. Crafting a Deployment Strategy</li></ul>	255 285 305
Indov		335

2. Yuri B. Aguiar (2020). *Digital (R)evolution: Strategies to Accelerate Business Transformation*. 1<sup>st</sup> Edition, John Wiley & Sons, ISBN-13: 978-1119619734, ISBN-10: 1119619734

#### **Brief Table of Contents**

Preface	
1. Drivers of Change	1
2. Focus and Discipline	17
3. Idea Incubation	27
4. Operational Excellence	45
5. Customer-Driven Change	57
6. Strategy vs. Execution	73
7. Hire Captains, Not Kings of Queens	85



8. Integrated Ecosystems	101
9. Digital Proficiency and Innovation	125
10. Are You "Digitally Determined" or "Digitally	
Distraught"?	137
11. Use Case: The Smart City	159
12. Looking Ahead: Runway or Precipice?	169
13. Al: The Elephant in the Room	189
Index	227

# **Required Papers**

• Rita McGrath and Ryan McManus (2020). *Harvard Business Review*: Discovery-Driven Digital Transformation, Reprint: R2002J, May-June 2020

# Recommended Papers

- McGahan, A. M. (2000). How industries evolve. Business Strategy Review, 11(3), 1-16.
- McGahan, A. M. (2004). How industries change. Harvard Business Review, 82(10), 86-94.
- Nadan, J. S. (2014). Using innovation science to minimize entrepreneurial risk. In *Innovations in Technology Conference (InnoTek)*, 2014 IEEE (pp. 1-7). IEEE.
- Porter, M. E. (2008) The Five Competitive Forces that Shape Strategy
- Ulwick, A. W. (2009). What Is Outcome-Driven Innovation® (ODI)? White Paper, Strategyn
- Michaelides, D. (2011). The art of innovation in the public sector. *International Journal of Innovation Science*, 3(3), 117-126.

#### **Grading | Assessment**

GRADING RUBRIC:	% OF FINAL GRADE
Class participation	10.0 %
2 Industry Case Studies (Team) - 15 % each	30.0 %
(5% individual component, 10% team component)	
2 Homework Assignments (Individual) - 15 % each	30.0 %
Final Case Study (Individual)	30.0 %
(Paper 10%, Why do it 5%, Strategy 5%, Timing and ROI 10%	
Total	100.0 %

Missed and unexcused classes will result in 5% penalty. After two missed unexcused classes the student will receive zero credit for class participation. Late assignments and cases will result in zero credit for that assignment/case.

The homework assignments and the final exam are to be completed individually. The case studies are to be worked on and completed in the assigned groups.

Students are expected to contribute to the class discussion in each lesson, with constructive and analytical comments. Participation is strongly encouraged. The objective is not a specific answer but to foster a debate around key issues.

With regard to the case studies students will be expected to work in groups and show a progressively more in-depth knowledge of their industry as the semester progresses. The focus of the assignments will advance from the descriptive and basic topics to the analytical and advanced subjects.



Homework assignments will focus on lesson topics. Students will be expected to provide, concise, tersely written papers reflecting a strong grasp of the subject matter. There will be equal weightings for structure – clarity of presentation – and content.

\*Please note that you will be provided with the parameters and the additional criteria on how you will be measured for each of the assessments listed above in class

See the <u>"Grades" section of Academic Policies</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.

# **NYU SPS Graduate Grading Scale**

A	95-100	4.000	<b>Exceptional</b> : Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.
Α-	90-94	3.667	<b>Excellent</b> : Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	Very Good; exceeds course standards: Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	Good; meets course standards: Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
В-	80-82	2.667	Somewhat Satisfactory; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement: Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.
С	73-76	2.000	Unsatisfactory; requires substantial improvement: Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	Unsatisfactory; requires extensive improvement: Demonstrates poor understanding of all learning outcomes and core concepts; requires extensive improvement.
F	Below 70		<b>Fail</b> : Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.

From NYU SPS Policies and Procedures



#### **Course Outline**

**Start/End Dates:** 9/06/2022 - 12/13/2022 | Tuesdays

Time: 6:20 pm - 8:55 pm ET

No Class Date(s): No class date: Tuesday, 10/11/2022 - Legislative Day

Special Notes: Due to Legislative Monday, there will be no class on Tuesday, October 11,

2022. This day is reserved for Monday class sessions only.

# Class 1: 09/06/22 Outline of Topics:

#### Introduction:

- Introductions of students and instructor
- Review of Syllabus
- Introduction to the Course and Overview of Course Requirements and Assignments
  - Introduction Chief Innovation Officer
  - Applied Digital Transformation

#### Reading:

None

# Class 2: 09/13/22

# **Outline of Topics:**

#### Introduction:

- Introductions of students and instructor
- Review of Syllabus
- Introduction to the Course and Overview of Course Requirements and Assignments

#### Topics:

- Strategic Management of Technological Innovation Chapter 1 Introduction
  - o Introduction candidate for digital disruption?
  - o Why discovery-driven digital transformation is needed?
  - o How to get from the current state to the digital level?

#### **Topics Part 2:**

- Strategic Management of Technological Innovation Chapter 2 Sources of Innovation
  - Translating creativity into innovation
  - Innovation in collaborative networks
- Digital (R)evolution Chapter 2 Focus and Discipline
  - O Who is responsible for transformation?
  - How to identify the opportunity to discover specific problems that can be addressed in a digital solution?
  - o How different are the "Always-on" digital natives?
  - o What is needed for your immediate survival?
  - Does discovery-driven digital transformation need to be micromanaged?

#### Reading:

- Strategic Management of Technological Innovation Chapter 1 Introduction
- Digital (R)evolution Chapter 1 Drivers of Change
- Harvard Business Review: Discovery-Driven Digital Transformation by Rita McGrath and Ryan McManus
- Strategic Management of Technological Innovation Chapter 2 Sources of Innovation
- Digital (R)evolution Chapter 2 Focus and Discipline



# **Deliverables: Form Teams for All Case Study Assignments**

#### Class 3: 09/20/22

# Topics:

- Strategic Management of Technological Innovation Chapter 3 Types and Patterns of Innovation
  - Types of innovation
  - Technology S-Curve
  - Technology Cycles
- Digital (R)evolution Chapter 3 Idea Incubation
  - O Why innovation is essential for success?
  - What's the challenge with the digital transformation in high-performing organizations?
  - o How to overcome inclination to risk avoidance?
  - o Why organizations need empowered champions?
  - o Why most of the organizations struggle with the transformation?
  - o How to approach and propose the transformation?

#### **Topics Part 2:**

- Strategic Management of Technological Innovation Chapter 4 Standard Battles, Modularity, and Platform Competition
  - o Why dominant designs are selected?
  - o Multiple dimensions of value
  - Modularity and platform competition
- Digital (R)evolution Chapter 4 Operational Excellence
  - What's the relationship between operational excellence and customer experience?
  - o Who are your customers in the "service" economy?
  - O How to use data and analytics to make a case to executives and others?
  - o Where to look for the problems and pain points?
  - o Is the response time or solution time that matter?

#### Assignment 1

- Digital (R)evolution Chapter 1-3
  - o Review the relevant materials
  - Research the topic
  - Answer the following questions:
    - Is your company/industry a candidate for digital disruption?
    - What is needed for your company/industry's immediate survival?
    - Why do most of organizations struggle with the innovation transformation?

# Reading:

- Strategic Management of Technological Innovation Chapter 3 Types and Patterns of Innovation
- Digital (R)evolution Chapter 3 Idea Incubation
- Strategic Management of Technological Innovation Chapter 4 Standard Battles, Modularity, and Platform Competition
- Digital (R)evolution Chapter 4 Operational Excellence

**Deliverables:** Individual Assignment 1 – Due <u>10/04/22</u>



# Class 4: 09/27/22

# Topics:

- Strategic Management of Technological Innovation Chapter 5 Timing of Entry
  - First-mover advantages
  - First-mover disadvantages
  - Strategies to improve timing options
- Digital (R)evolution Chapter 5 Customer-Driven Change
  - o What's more important: People or Technology?
  - o Why organizations struggle and become irrelevant?
  - What are the principles of successful transformation?
  - o Is your digital workforce digitally proficient?

# Reading:

- Strategic Management of Technological Innovation Chapter 5 Timing of Entry
- Digital (R)evolution Chapter 5 Customer-Driven Change
- Rita McGrath and Ryan McManus (2020). *Harvard Business Review*: Discovery-Driven Digital Transformation, Reprint: R2002J, May-June 2020

### **Deliverables: None**

### Class 5: 10/04/22

# Topics:

- Strategic Management of Technological Innovation Chapter 6 Defining the Organization's Strategic Direction
  - Assessing the firm's current position
  - Identifying core competencies and dynamic capabilities
  - Strategic Intent
- Digital (R)evolution Chapter 6 Strategy vs. Execution
  - When is the last time you have communicated the digital strategy?
  - o What does it mean to be a transformational leader?
  - o How to set a winning transformation strategy?
  - o What could and will derail the transformation initiatives?
  - O How to get the "wagon" back on the track?

### Reading:

- Strategic Management of Technological Innovation Chapter 6 Defining the Organization's Strategic Direction
- Digital (R)evolution Chapter 6 Strategy vs. Execution

# **Deliverables: Team Case Study 1 – Due** <u>10/18/22</u>

### Case 1

- Tesla, Inc. in 2021 Strategic Management of Technological Innovation Chapter 6, page 117
  - Read and analyze the case
  - Research the topic
  - Answer the six questions on page 125

### NOTE: No class on 10/11.



# Class 6: 10/18/22

### Topics:

- Strategic Management of Technological Innovation Chapter 7 Choosing Innovation Projects
  - The development budgets
  - Quantitative methods for choosing projects
  - Disadvantages of quantitative methods
  - Qualitative methods for choosing projects
  - Combining quantitative and qualitative information
- Digital (R)evolution Chapter 7 Hire Captains, Not Kings or Queens
  - O Why hiring is so difficult?
  - Are people assets or liability?
  - O Who are the most valuable players?
  - o Is reverse mentoring beneficial to companies?
  - o Can you teach passion?

### Reading:

- Strategic Management of Technological Innovation Chapter 7 Choosing Innovation Projects
- Digital (R)evolution Chapter 7 Hire Captains, Not Kings or Queens

# **Deliverables: Final Case Study Industry Selected by Teams**

### Class 7: 10/25/22

### Topics:

- Strategic Management of Technological Innovation Chapter 8 Collaboration Strategy
  - Reasons for going solo
  - Advantages of collaborating
  - Types of collaborative arrangements
  - Choosing a mode of collaboration
  - Choosing and monitoring partners
- Digital (R)evolution Chapter 8 Integrated Ecosystems
  - o Why people think of Digital Transformation as back-office processes?
  - o Why social collaboration is a prerequisite to digital transformation?
  - O Why it is so difficult for users to adopt new technologies?
  - o What's the strategy to deal with knowledge workers?
  - o How to solve the information overload challenge?

### Reading:

- Strategic Management of Technological Innovation Chapter 8 Collaboration Strategy
- Digital (R)evolution Chapter 8 Integrated Ecosystems

# Deliverables: None.

### Class 8: 11/01/22

# Topics:

- Strategic Management of Technological Innovation Chapter 9 Protecting Innovation
  - Appropriability
  - Patents, trademarks, and copyrights
  - o The effectiveness and use of protection mechanisms



- Digital (R)evolution Chapter 9 Digital Proficiency and Innovation
  - o Has the advanced technology become commodity?
  - Why digital proficiency is more important than transformational technologies?
  - o How to lead discovery-driven digital transformation?
  - o Are the robots taking the world over?
  - o Where do humans fit in the digital revolution?

# Reading:

- Strategic Management of Technological Innovation Chapter 9 Protecting Innovation
- Digital (R)evolution Chapter 9 Digital Proficiency and Innovation

# Deliverables: Innovative Idea Individual Presentation – High Level

**Team Case Study 2 – Due** <u>11/15/22</u>

### Case 2

- The Patent Battle over CRISPR-Cas9 Gene Editing Strategic Management of Technological Innovation – Chapter 9, page 199
  - Read and analyze the case
  - Research the topic
  - Answer the four questions on page 201

### Class 9: 11/08/22

### Topics:

- Strategic Management of Technological Innovation Chapter 10 Organizing for Innovation
  - Size and structural dimensions of the firm
  - Structural dimensions of the firm
  - Modularity and "Loosely Coupled" organizations
  - Managing innovation across borders
- Digital (R)evolution Chapter 10 Are you" Digitally Distraught"?
  - What's your digital strategy?
  - o Why digital transformation seems to be confusing?
  - o What is your definition of digital transformation?
  - O What are your fundamental digital transformation objectives?
  - o Determined or distraught?

### Reading:

- Strategic Management of Technological Innovation Chapter 10 Organizing for Innovation
- Digital (R)evolution Chapter 10 Are you" Digitally Distraught"?

# **Deliverables: Individual Assignment 2 – Due** <u>11/22/22</u>

# Assignment 2

- Digital (R)evolution Chapter 9-10,12
  - Review the relevant materials
  - Research the topic
  - Answer the following questions:
    - Has advanced technology become a commodity?



- Are robots taking over the world?
- What is your definition of digital innovation?
- What does "User Experience" mean to humans and robots (Ch12)?

### Class 10: 11/15/22

### Topics:

- Strategic Management of Technological Innovation Chapter 11 Managing the New Product Development Process
  - Objectives of the new product development process
  - Sequential versus partly parallel development process
  - Product champions
  - Involving customers and suppliers in the development process
  - Tools for improving the new product development process
  - Tools for measuring new product development performance
- Digital (R)evolution Chapter 11 Use Case: The Smart City
  - What are the boundaries of digital transformation?
  - o Why system of systems needs digital connectivity?
  - o What are the areas of smartness?
  - o Why changing people's habits is more important than changing the technology?

# Reading:

- Strategic Management of Technological Innovation Chapter 11 Managing the New Product Development Process
- Digital (R)evolution Chapter 11 Use Case: The Smart City

# **Deliverables: None**

# Class 11: 11/22/22

### Topics:

- Strategic Management of Technological Innovation Chapter 12 Managing New Product Development Teams
  - Constructing new product development teams
  - The structure of new product development teams
  - The management of new product development teams
- Digital (R)evolution Chapter 12 Looking Ahead: Runway or Precipice?
  - o How intelligent is Artificial Intelligence?
  - O Why will robots not take your job?
  - O What does "User Experience" mean to humans and robots?
  - O What happens when great platforms go down?
  - O Why are people fooled by the look and feel?

### Reading:

- Strategic Management of Technological Innovation Chapter 12 Managing New Product Development Teams
- Digital (R)evolution Chapter 12 Looking Ahead: Runway or Precipice?

**Deliverables: None** 

Class 12: 11/29/22

Topics:



- Strategic Management of Technological Innovation Chapter 13 Crafting a Deployment Strategy
  - Launching Timing
  - o Licensing and compatibility
  - Pricing
  - Distribution
  - Marketing
- Digital (R)evolution Chapter 13 AI: The Elephant in the Room
  - O What AI is and is not?
  - O What's the impact of AI on the workplace?
  - o Is AI capable to find needles in haystack?
  - o Is there a difference between AI and Data Science?
  - o Why Discovery-Driven Digital Transformation is the answer?

### Reading:

- Strategic Management of Technological Innovation Chapter 13 Crafting a Deployment Strategy
- Digital (R)evolution Chapter 13 The Elephant in the Room

# Deliverables: Reminder - Final Team Case Study Presentation Due 12/13/22

# Class 13: 12/06/22

Topics:

- Final Case Presentation Working Session and Draft Discussion
- Course review

# Reading:

None

Deliverables: Reminder - Final Team Case Study Presentation Due 12/13/22

### Class 14: 12/13/22

### Topics:

- Final Case Presentation
- Course wrap-up

### Reading:

None

**Deliverables: Final Team Case Study Presentation DUE TODAY** 

### NOTES:

The syllabus may be modified to better meet the needs of students and to achieve the learning outcomes.

The School of Professional Studies (SPS) and its faculty celebrate and are committed to inclusion, diversity, belonging, equity, and accessibility (IDBEA), and seek to embody the IDBEA values. The School of Professional Studies (SPS), its faculty, staff, and students are committed to creating a mutually respectful and safe environment (from the SPS IDBEA Committee).



# **New York University School of Professional Studies Policies**

- 1. <u>Policies</u> You are responsible for reading, understanding, and complying with University Policies and Guidelines, NYU SPS Policies and Procedures, and Student Affairs and Reporting.
- 2. <u>Learning/Academic Accommodations</u> New York University is committed to providing equal educational opportunity and participation for students who disclose their dis/ability to the <u>Moses Center for Student Accessibility</u>. If you are interested in applying for academic accommodations, contact the <u>Moses Center</u> as early as possible in the semester. If you already receive accommodations through the <u>Moses Center</u>, request your accommodation letters through the <u>Moses Center Portal</u> as soon as possible (<u>mosescsa@nyu.edu</u> | 212-998-4980).
- 3. <u>Health and Wellness</u> To access the University's extensive health and mental health resources, contact the NYU Wellness Exchange. You can call its private hotline (212-443-9999), available 24 hours a day, seven days a week, to reach out to a professional who can help to address day-to-day challenges as well as other health-related concerns.
- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the NYU SPS Office of Student Affairs site.
- 5. <u>Religious Observance</u> As a nonsectarian, inclusive institution, NYU policy permits members of any religious group to absent themselves from classes without penalty when required for compliance with their religious obligations. Refer to the <u>University Calendar Policy</u> on <u>Religious Holidays</u> for the complete policy.
- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus, recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

Turnitin, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.

Read more about academic integrity policies at the NYU School of Professional Studies on the Academic Policies for NYU SPS Students page.

7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.

These services may require you to create an account, but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).



You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.



# **Financial Management**

MASY1-GC 1220-200| Fall 2022 | 9/01/2022 - 12/08/2022 | Thursdays | 3 Credits Modality: Online Synchronous

Course Site URL: <a href="https://brightspace.nyu.edu/d2l/home/195970">https://brightspace.nyu.edu/d2l/home/195970</a>.

### **General Course Information**

Name/Title: Zev Kops, Adjunct Lecturer, He/Him/His

NYU Email: zev.kops@nyu.edu

Class Meeting Schedule: 9/01/2022 - 12/08/2022 | Thursdays / 7:00 pm - 9:35 pm ET

Class Location: Online

Office Hours: Meetings will be held via Brightspace (online, synchronous) using the Zoom

platform. Please reach out to schedule.

### **Description**

This course covers current financial and managerial accounting methods and their function within the information system of decision making. Topics include accounting theory and concepts, financial statement analysis as well as financial analysis for evaluation and decision-making. The course also focuses on capital investment analysis, financial models, and the legal ramifications of technological advances in the finance industry. Students learn to apply financial management principles, techniques, and best practices to analyze a firm's finances. The course prepares students to study financial risk management and entrepreneurship.

### **Prerequisites**

N/A

### **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Analyze financial statements utilizing generally accepted accounting principles (GAAP) to assess financial health of the organization and inform decision making
- Apply the Time Value of Money theory in making financial decisions and evaluating competing projects
- Apply the basics of financial markets in making financial decisions
- Apply knowledge of capital markets to meet a firm's capital needs and investment decisions
- Develop organizational financial plans using financial modeling techniques

### **Communication Methods**

Be sure to turn on your NYU Brightspace notifications and frequently check the "Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email. I will endeavor to respond within 24 hours.

Credit students must use their NYU email to communicate. Non-degree students do not have NYU email addresses. Brightspace course mail supports student privacy and FERPA guidelines. The instructor will use the NYU email address to communicate with students. All email inquiries will be answered within 24 hours.



Students have the opportunity to add their pronouns, as well as the pronunciation of their names, into Albert. Students can have this information displayed to faculty in Albert, Brightspace, and other NYU systems. Students can also opt out of having their pronouns viewed by their instructors.

https://www.nyu.edu/students/student-information-and-resources/registration-records-and-graduation/forms-policies-procedures/change-of-student-information/pronouns-and-name-pronunciation.html

# Structure | Method | Modality

There are 14 session topics in this course. The course covers six interrelated units: 1) Financial Accounting for Managers, 2) Financial Statement Analysis, 3) Budgeting and Forecasting, (4) Risk and Return, (5) Financial Assets, and (6) Project Analysis & Capital Budgeting.

Individual assignments and the term paper will be based on course materials (e.g., readings, videos), lectures, and class discussions. Course sessions will be conducted synchronously on NYU Zoom, which you can access from the course site in NYU Brightspace.

# **Expectations**

# **Learning Environment**

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

# **Classroom Expectations**

As graduate students, you are expected to conduct yourselves in a professional manner and engage and collaborate with your classmates. For online courses using the Zoom meeting room, here are our guiding principles:

Dress as if you are in the Classroom.

Keep your video on throughout the class.

Keep your microphone muted unless asking a question or engaging in discussion.

Check your video and audio when entering your class session.

Think background, minimize distractions around you.

Look into the camera instead of looking at the screen.

Type quietly, mute if necessary.

SPS classrooms are diverse and include students who range in age, culture, learning styles, and levels of professional experience. To maintain an inclusive environment that ensures all students can equally participate with and learn from each other, as well as receive feedback and instruction from faculty during group discussions in the classroom, all course-based discussions and group projects should occur in a language that is shared among all participants.

### **Participation**

You are integral to the learning experience in this class. Be prepared to actively contribute to class activities, group discussions, and work outside of class.



# **Assignments and Deadlines**

# Readings

Thorough reading and analysis of all reading assignments prior to each class session is required. The first class is NO exception. You must make whatever arrangements are necessary to ensure you have your textbook on time.

# **Assignments**

There will be individual assignments. Assignments must be submitted when due, via the Brightspace platform. The system will automatically close at the time the assignment is due.

Missed assignments will lower the student's grade based on the percentage of the grade allocable to it.

Late assignments are permitted only with advance notice to, and permission from, the instructor. It is understood that this class requires a significant amount of time and effort from each student. Employment-related issues, such as heavy workloads or business travel, will not be cause for extensions. Extensions will only be granted due to extenuating circumstances (e.g., illness, unanticipated personal issues).

No work for this course may be all or part of assignments prepared for or used in previous or current courses.

No form of extra-credit work is permissible. Students are not permitted to redo/revise/resubmit any completed and graded assignments.

### **Course Technology Use**

We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of Zoom. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes. Students are expected to be able to use Excel to complete assignments.

### **IT Service Desk**

(212)-998-3333

24 hours a day, 7 days a week

Email: AskIT@nyu.edu

# **Zoom Support**

- NYU Zoom Guide for Students
- Make sure you are using NYU Zoom to log-in for class
- Check the <u>NYU Zoom site</u> often for updates. (To update Zoom, you can also open from your desktop and click menu, then "Check for Updates.")

# **Brightspace Support**

- Log-in to the Brightspace platform or visit the Student Training website.
- Video on how to Navigate the Bright Space Learning Environment



# **Feedback and Viewing Grades**

I will provide timely meaningful feedback on all your work via our course site in NYU Brightspace. You can access your grades on the course site Gradebook.

# **Attendance**

Students are expected to attend all on-line class sessions. Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

If for some reason (excused absence) you will not be in class, you must notify the instructor prior to the scheduled session if you will not be attending and the reason.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays:

https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

Refer to the SPS Policies and Procedures page for additional information about attendance.

### **Textbooks and Course Materials**

# **Required Reading**

Title: Fundamentals of Financial Management, Concise Edition, 11th ed., 2022

Authors: Eugene F. Brigham and Joel F. Houston

Publisher: Cengage Learning ISBN-13: 978-0357517710 ISBN-10: 0357517717

This book is available at the NYU Bookstore. It is also available on Amazon.com: https://www.amazon.com/Fundamentals-Financial-Management-Concise-MindTap/dp/0357517717

### **Grading | Assessment**

Your grade in this course is based on your performance on multiple activities and assignments. Since all graded assignments are related directly to course objectives and learning outcomes, failure to complete any assignment will result in an unsatisfactory course grade. All written assignments are to be completed using APA format and must be typed and double-spaced. Grammar, punctuation, and spelling will be considered in grading. Please carefully proof-read your written assignments before submitting them for a grade. I will update the grades on the course site each time a grading session has been completed.

### **DESCRIPTION**

**PERCENTAGE** 



Assigned Activities (total of 4) 40%
Participation 20%
Term Paper 40%

TOTAL POSSIBLE 100%

See the <u>"Grades" section of Academic Policies</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course. See here for the graduate grading scale https://tinyurl.com/nyuspsgraduategrading.

### **Course Outline**

Start/End Dates: 9/01/2022 - 12/08/2022 | Thursdays

Time: 7:00 pm - 9:35 pm ET

No Class Date(s): No class date: Thursday, 11/24/22, Thanksgiving Recess

Special Notes: Choose an item.

### Course Outline

The course covers six interrelated units, as follows:

# **Unit 1: Financial Accounting for Managers**

### Session 1: 09/01/22

- Introduction
- Purpose of accounting information and their users
- Description and purpose of core financial statements

### Session 2: 09/08/22

- Description of Balance Sheet and Statement of Stockholders' Equity
- Definition of income and expenses
- Description of Income Statement

# Session 3: 09/15/22

- · Net Income vs. Cash Flow
- Description of Statement of Cash Flow
- Additional financial statement metrics

### Unit 1 Reading:

Required: Chapters 1 and 3, prior to class of 09/01/22 Suggested: Chapter 2, prior to class of 09/08/22 Unit 1 Individual Assignment due 09/23/22

Forum 1 begins Sunday, 09/11/22, ends Sunday, 09/18/22 at 11:59PM

### **Unit 2: Financial Statement Analysis**

### Session 4: 09/22/22

Financial ratios: types and uses



Benchmarking and trend analysis

### Session 5: 09/29/22

- Operating ratios
- · Implications of financial ratios

Unit 2 Reading:

Required: Chapter 4, prior to class of 09/22/22 Unit 2 Individual Assignment due 10/07/22

Forum 2 begins Sunday, 09/25/22, ends Sunday, 10/02/22 at 11:59PM

### **Unit 3: Budgeting and Forecasting**

# Session 6: 10/06/22

- Cost Analysis
- Preparing budgets

# Session 7: 10/13/22

Alternative forecasting methodologies

Unit 3 Reading:

Suggested: Chapter 15, prior to class of 10/06/22 Required: Chapter 16, prior to class of 10/13/22

No individual assignment

Forum 3 begins Sunday, 10/09/22, ends Sunday, 10/16/22 at 11:59PM

### **Unit 4: Risk and Return**

# Session 8: 10/20/22

- Types and measures of risk
- Time value of money

# Session 9: 10/27/22

- · Market efficiency and risk attitude
- Interest rates
- Term structure

# Session 10: 11/03/22

- Using Excel to solve time value of money problems
- Term paper review

### Unit 4 Reading:

Required: Chapter 5 prior to class of 10/20/22 Suggested: Chapter 8, prior to class of 10/20/22 Required: Chapter 6 prior to class of 10/27/22 Unit 4 Individual Assignment due 11/11/22

Forum 4 begins Sunday, 10/30/22, ends Sunday, 11/06/22 at 11:59PM



### **Unit 5: Financial Assets**

### Session 11: 11/10/22

- Bonds and their valuation
- The cost of capital

# Session 12: 11/17/22

- · Stocks and their valuation
- Market efficiency

Unit 5 Reading:

Required: Chapter 7, prior to class of 11/10/22 Required: Chapter 9, prior to class of 11/17/22

No individual assignment

Forum 5 begins Sunday, 11/13/22, ends Sunday, 11/20/22 at 11:59PM

# **Unit 6: Project Analysis & Capital Budgeting**

### Session 13: 12/01/22

- · Accounting data vs. marginal cash flow
- Sensitivity analysis

### Session 14: 12/08/22

- Payback method
- · Discounted Cash Flow analysis
- Net Present Value
- Internal Rate of Return
- Ranking projects

# Unit 6 Reading:

Required: Chapter 12, prior to class of 12/01/22 Required: Chapter 11, prior to class of 12/08/22. Unit 6 Individual Assignment due 12/10/22

Forum 6 begins Sunday, 12/04/22, ends Sunday, 12/11/22 at 11:59PM

### Term Paper due Wednesday, 11/30/22 at 11:55PM

### NOTES:

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- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the NYU SPS Office of Student Affairs site.
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- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

Turnitin, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.

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These services may require you to create an account but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.



# **Project Management in the Information Age**

MASY1-GC 1250-200f| Fall 2022 | 9/06/2022 - 12/13/2022 | Tuesdays | 3 Credits Modality: Online Synchronous

Course Site URL: https://brightspace.nyu.edu/d2l/home/196018

### **General Course Information**

Name/Title: Dr. Virginia Marino, Adjunct Instructor, She/Her/Hers

NYU Email: vm77@nyu.edu

Class Meeting Schedule: 9/06/2022 - 12/13/2022 | Tuesdays / 7:00 pm - 9:35 pm ET

Class Location: Online

Office Hours: Students will have an opportunity to schedule via email or phone. Meeting times are

by appointment.

### **Description**

This course covers the fundamentals of project management and explores the methodologies and techniques for managing technological projects. Throughout this course, students learn to define a business problem, plan the delivery of a solution for that problem, and manage the quality completion of the project deliverables. The course prepares students to plan and manage organizational technology related projects by applying various project management techniques effectively.

# **Prerequisites**

1240 - INFORMATION TECHNOLOGY

### **Learning Outcomes**

At the conclusion of this course, Students will be able to,

- 1. Evaluate the impact of current and emerging technologies on their alignment with individual, organizational, and societal needs.
- 2. Evaluate the IT project plans to align with data management principles.
- 3. Determine the business need for a proposed IT project and its alignment to the organization's mission and/or business model using various analytic tools.
- 4. Develop an IT project proposal, including a recommendation for a systems solution and the framework methodology for the planning and execution of a project plan.
- 5. Create a Scope Management Plan for an IT/IS project including reference to the product/service deliverables and the project plan artifacts.
- 6. Produce a functional specification to represent the features and functions of a project deliverable for alignment to a technical design specification.
- 7. Apply the Systems Development Lifecycle Model (SDLC) to IT/IS projects across the lifecycle phases including planning, analysis, design, implementation, and operations.
- 8. Prepare a test plan, using a comprehensive test design template, to validate and verify the usability of the planned systems solution.

### **Communication Methods**

Be sure to turn on your <u>NYU Brightspace notifications</u> and frequently check the "Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email. I will respond within 24 hours



whenever possible.

Credit students must use their NYU email to communicate. Non-degree students do not have NYU email addresses. Brightspace course mail supports student privacy and FERPA guidelines. The instructor will use the NYU email address to communicate with students. All email inquiries will be answered within 24 hours.

Students have the opportunity to add their pronouns, as well as the pronunciation of their names, into Albert. Students can have this information displayed to faculty in Albert, Brightspace, and other NYU systems. Students can also opt out of having their pronouns viewed by their instructor

https://www.nyu.edu/students/student-information-and-resources/registration-records-and-graduation/forms-policies-procedures/change-of-student-information/pronouns-and-name-pronunciation.html

# Structure | Method | Modality

There are 15 session topics in this course. The session topics are organized into three (3) areas of study: 1) History, 2) Learning Principles, and 3) Instructional Design in Practice.

Active learning experiences and small group projects are key components of the course. Assignments, papers, and exams will be based on course materials (e.g., readings, videos), lectures, and class discussions. Course sessions will be conducted synchronously on NYU Zoom, which you can access from the course site in NYU Brightspace.

# **Expectations**

# **Learning Environment**

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful and relevant engagement in course topics and readings, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

### **Participation**

You are integral to the learning experience in this class. Be prepared to contribute actively and constructively to class activities, group discussions, and work outside of class.

### Assignments and Deadlines

ASSIGNMENT	% OF GRADE	DUE DATE
Participation	15%	Ongoing
Team Project Proposal (Team Submission)	N/A	Session 3: 09/20/22
Team Contract (Individual Submission)	5%	Session 4: 09/27/22
Team Project Business Case (Team Submission)	5%	Session 5: 10/04/22
Mid-Term Exam (Individual Submission)	15%	Session 7: 10/25/22
Communications/Stakeholders Analysis (Individual)	5%	Session 8: 11/01/22
Team Project Plan (Team Submission)	5%	Session 9: 11/08/22
Project Subsidiary Plans (Individual Submission)	20%	Session 10: 11/15/22
Team Project Presentation & Final Project Report (Team)	5%	Session 12: 11/29/22
Final Exam	<u>25%</u>	Session 14: 12/13/22
Total	100%	



# Course Technology Use

We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of Zoom. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes.

### **IT Service Desk**

(212)-998-3333

24 hours a day, 7 days a week

Email: AskIT@nyu.edu

# **Zoom Support**

- NYU Zoom Guide for Students
- Make sure you are using <u>NYU Zoom</u> to log-in for class
- Check the <u>NYU Zoom site</u> often for updates. (To update Zoom, you can also open from your desktop and click menu, then "Check for Updates.")

# **Brightspace Support**

- Log-in to the Brightspace platform or visit the Student Training website.
- 1. Video on how to Navigate the Bright Space Learning Environment

### Feedback and Viewing Grades

Timely and meaningful feedback will be provided on your work via our course site in NYU Brightspace. You can access your grades on the course site.

### Attendance

Students are expected to attend all on-line class sessions. Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

If for some reason (excused absence) you will not be in class, you must notify the instructor prior to the scheduled session if you will not be attending and the reason.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays:

https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

Refer to the SPS Policies and Procedures page for additional information about attendance.

### **Textbooks and Course Materials**

### REQUIRED AND RECOMMENDED MATERIAL



### Required Reading

Project Management: A Systems Approach to Planning, Scheduling, and Controlling

13th Edition, 2022 Harold Kerzner John Wiley & Sons, Inc. ISBN-13: 978-1119805373

• A Guide to the Project Management Book of Knowledge (PMBOK Guide)

7th Edition, 2021 Project Management Institute ISBN-13: 978-1628256642

### Recommended Lynda.com Playlists

- Project Management Foundations
   Bonnie Biafore
- Agile Project Management Foundations Bob McGannon

### Recommended Playlists

 Microsoft Project 2010 Essential Training Bonnie Biafore

# **Supporting Materials**

- 1. Access to the on-line homepage (course) resources in Brightspace
- 2. The Class forum
- 3. Selected links to online sites, including YouTube videos as appropriate
- 4. The Scrum Guide. The Definitive Guide to Scrum: The Rules of the Game, Scrum.org (This is a free, downloadable .PDF)

### **Grading | Assessment**

Your grade in this course is based on your performance on multiple activities and assignments. Since all graded assignments are related directly to course objectives and learning outcomes – both individual and team assignments - failure to complete any assignment will result in an unsatisfactory course grade. All written assignments are to be completed using APA format and must be typed and double-spaced. Please note that throughout the course, relevant sample templates that are used in standard project management contexts will be provided in Brightspace to guide you. Grammar, punctuation, and spelling will be considered in grading. Please carefully proof-read your written assignments before submitting them for a grade. I will update the grades on the course site each time a grading session has been completed— typically three (3) days following the completion of an activity.

See the <u>"Grades" section of Academic Policies</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.



# **NYU SPS Graduate Grading Scale**

A	95-100	4.000	<b>Exceptional</b> : Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.
Α-	90-94	3.667	<b>Excellent</b> : Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	Very Good; exceeds course standards: Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	Good; meets course standards: Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
B-	80-82	2.667	Somewhat Satisfactory; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement: Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.
С	73-76	2.000	Unsatisfactory; requires substantial improvement: Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	Unsatisfactory; requires extensive improvement: Demonstrates poor understanding of all learning outcomes and core concepts; requires extensive improvement.
F	Below 70		<b>Fail</b> : Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.

From NYU SPS Policies and Procedures



**Start/End Dates:** 9/06/2022 - 12/13/2022 | Tuesdays

Time: 7:00 pm - 9:35 pm ET

No Class Date(s): No class date: Tuesday, 10/11/2022 - Legislative Day

Special Notes: Due to Legislative Monday, there will be no class on Tuesday, October 11,

2022. This day is reserved for Monday class sessions only.

### Session 1 - 09/06/22

# <u>Topic Description</u> - <u>Project Management Overview; Integration & Scope Management.</u>

Introduction and Overview

Discussion will focus on an introduction to the course, course and project team members, and the framework of structured project management.

The Scope of a Project

Discussion will focus on:

Scope: The initiation of a project and the importance of understanding its scope.

Project Integration Management: project lifecycle and management practices, the story they weave.

The Project Charter.

### **Assignments:**

- \* Required Reading: Kerzner Text: Chapter 1 (Answer all end of chapter questions 1-7)
- ❖ Required Reading: Kerzner Text: Chapter 2 (Answer all end of chapter questions 1-15)
- ❖ Lynda.com: 1. Learn the components of a project (8 videos, topics covered in class)
- Lynda.com: 2. Exploring Project Management Knowledge Areas (10 videos only topics covered in class)

### Session 2 - 09/13/22

# <u>Topic Description - Stakeholder Management and Resource Management; Team Project Overview.</u>

Stakeholder Engagement

Discussion will focus on individuals and entities that have an interest in the success or failure of a project.

Team / Resource Management

Discussion will focus on human resource management and the roles and responsibilities of the project team. **Team Contract**. In-Class discussion of the **Team Project**.

### **Assignments:**

- \* Required Reading: Kerzner Text: Chapter 10 (Answer all end of chapter questions 1-3)
- Required Reading: Kerzner Text: Chapter 5 (Answer all end of chapter questions 1,5-11)
- ❖ Lynda.com: 3. First Things First (10 videos only topics covered in class)
- Case Study: Managing Conflict Within a Project.



### Session 3 - 09/20/22

# Topic Description - Identifying & Defining Requirements; Time Management.

Discussion will focus on the application of scheduling tools used to build a project work plan.

- ❖ The Project Work Plan and the Importance of the Work Breakdown Structure (WBS): Discussion will focus on the project timeline and the decomposition of the work that will be required, the WBS, to deliver results. From our NYU Brightspace, read the posted files entitled:
  - "WBS Diagrams Gray & Larson" and
  - "WBS Diagrams 2 Brown & Hyer."
- We will also finalize members of Team Project groups in this session.

# **Assignments:**

- ❖ Submit Team Project Proposal (Team Submission, 1-page summary and justification)
- \* Required Reading: Kerzner: Chapter 12 (Answer end of chapter questions 1, 3-6, 8-14)
- Case Study: Getting Requirements Right
- ❖ Lynda.com: 4. Developing a Project Plan (15 videos only topics covered in class)
- ❖ Lynda.com: 5. Building a Project Schedule (8 videos only topics covered in class)

### Session 4 – 09/27/22

# <u>Topic Description – Scheduling and Cost Management; Procurements Management.</u>

The Financial Plan and Project Budget; Procurements Management and the Statement of Work (S.O.W.).

Identifying the Value Proposition associated with a project initiative, both short- and long-term, will be considered. The Project Financial plan and Budget will be discussed, including the cost and management of Procurements. The Statement of Work (the terms of understanding with the project partners, vendors, and suppliers) are part of this aspect of project management. Discussion will focus on the planned expenses for a project, preliminary and detailed, against the actual costs.

### **Assignments:**

- ❖ Submit Team Contract (1 copy per Project Team, signed by all Team Members)
- Required Reading: Kerzner Text Chapter 19 ("Contract Management") (Answer end of chapter questions 1-10, 15-25)
- ❖ Required Reading: Kerzner Text: Chapter 14 (Answer all end of chapter questions 1-17).

### Session 5 – 10/04/22

# <u>Topic Description – Quality Management: Quality Assurance; Quality Control.</u>

 Discussion will focus on the User Expectations of the project owner and how the user expectations and user experience (UX) are 'operationalized' in the Project Plan. Also considered are 'feed-forward' to 'feed-back' and the importance of quality management to deliver a successful solution. How to create a "Test Plan" will also be addressed.



# **Assignments:**

- ❖ Submit Business Case for Team Project (Team submission, 1 copy from each Team).
- \* Required Reading: Kerzner Text: Chapter 20 (Answer end of chapter questions 1-20).

# [NO CLASS ON 10/11/22]

### Session 6 - 10/18/22

# Topic Description – Managing Risk.

This discussion will focus on potential issues that if they become realities, will impact the project. The topic is 'Risk Management.' Methods for performing Risk Analysis, qualitative and quantitative risk assessments, and creating a Risk Response Plan will be covered.

# **Assignments:**

\* Required Reading: Kerzner: Chapter 17 (Answer all end of chapter questions 1-20).

### Session 7 - 10/25/22

# <u>Topic Description – MID-TERM EXAMINATION (In-Class Written Test)</u>

### Session 8 – 11/01/22

# **Topic Description – Communications & Stakeholder Management**

**❖** Project Communications Plan and Managing Stakeholders

Focus will return to "Stakeholders" – defining the term and understanding how to manage across the universe of stakeholders. Attention will be paid to how the WBS helps identify Stakeholders, and how Stakeholder Management is linked to the Communications Planning process for internal and external consumption.

### **Assignments:**

- Submit Communications/Stakeholders Analysis (Individual)
- \* Required Reading: Kerzner: Chapter 6 (Answer all end of chapter questions 1-4).
- \* Required Reading: Kerzner Text: Chapter 7 (Answer all end of chapter questions)

### Session 9 - 11/08/22

# <u>Topic Description – Monitoring & Controls; Outcome Assessment and Project Closure.</u>

- ❖ Discussion will focus on Monitoring techniques and identifying Key Performance Indicators (KPIs); implementing methods to Control project work to keep it in scope, on time and within budget; and tasks that are performed at the end stage of a project initiative to achieve successful contract closure and administrative closure.
- ❖ Each project team should work on finalizing their WBS and check the Scope and components Integration status, as well as track progress of the Project Plan.

# **Assignments:**

- **❖** Assignment Due: Submit detailed "Team Project Plan."
- Reading Assignment: Case Study "Project Management Woes at Proconsul."



- Lynda.com: 8. Monitoring & Controlling Progress and Performance (9 videos only topics covered in class).
- Lynda.com: 9. Closing a Project (5 videos only topics covered in class).

### Session 10 - 11/15/22

# <u>Topic Description – The SDLC: Agile vs. Waterfall Methodologies in IT Projects</u>

Discussion will focus on the development delivery life cycle, the 'ceremony' and the solution. The various Systems/Software Development Life Cycle methodologies are reviewed, from highly predictive to highly adaptive. Topics include ways to accomplish rapid deployment of products and services, and incremental approach. Comparison of Traditional *vs.* Agile methods and processes will be analyzed and compared.

### **Assignments:**

- Assignment Due: Individual 'Subsidiary Project Plans.'
- ❖ Required Reading: Kerzner Text Chapter 11 ("Planning" sections 11.0-11.25)
- ❖ Required Reading: Kerzner Text Chapter 8 (sections on Integrated and Virtual teams, Innovation projects and Agile project management.)
- Lynda.com: Agile Project Management Foundations (6 sections- 20 videos)

### Session 11 - 11/22/22

# Topic Description - Enterprise Project Management and Organizational Structure

Class discussion will focus on the holistic commitment of the enterprise to a balanced portfolio of projects. Discussion will reflect on how Project Management as a discipline can be successfully incorporated centrally at the enterprise level. We will also consider the impact of different organization structures (traditional, matrix, 'projectized') on Project Management processes and practices.

### **Assignments:**

- ❖ Assignment Due: The Team Project Plan
- \* Required Reading: Kerzner Text Chapter 3 ("Organizational Structures").

### Session 12 - 11/29/22

# **Topic Description - TEAM PROJECT PRESENTATIONS**

Each Team will have 20 minutes to deliver their Project Presentations to the class. Each member of each Team is expected to speak, and to deliver the part of the Project that Speaker researched and authored.

### **Assignments:**

❖ Individual Team Members deliver a 5-minute Presentation relevant to the Subsidiary Plans covered by those Team Members.

### Session 13 - 12/06/22

<u>Topic Description</u> – Lessons Learned: Agile "Retrospective" and Project Post-Mortems



- Project post-mortems and Agile "retrospectives" will be conducted. Class discussion will reflect on highlights of Project Management. Balancing individual contributions with collaborative group problem-solving will be considered in the context of defining, scoping, and controlling technical projects. The goal is to map out how what you have learned will serve you in your future classes and career.
- Some discussion time will focus on review of concepts that will be covered in the Final Exam, illustrated in working in teams on a sample Case Study highlighting key topics from the second half of the semester.

### **Assignments:**

- Submit Final Draft of the 'Team Report' with any updates to the Team 'Project Plan,' all finalized Individual 'Subsidiary Plans,' and the Team Presentation.
- ❖ Prepare Case Study for in-class review and discussion.
- Review for Final Examination: Content covered in the Final Exam includes all topics from Session 8 through Session 13 inclusive.

### Session 14 - 12/13/22

### **Topic Description – FINAL EXAMINATION**

The Final Exam is a written exercise that must be taken during the class period. It is an individual exercise; consultation with other students or other individuals is not permitted during the exam period.

Final Exam content covers topics from Sessions 8 through 13 inclusive.

# NOTES:

The syllabus may be modified to better meet the needs of students and to achieve the learning outcomes.

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- 3. <u>Health and Wellness</u> To access the University's extensive health and mental health resources, contact the NYU Wellness Exchange. You can call its private hotline (212-443-9999),



available 24 hours a day, seven days a week, to reach out to a professional who can help to address day-to-day challenges as well as other health-related concerns.

- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the NYU SPS Office of Student Affairs site.
- 5. <u>Religious Observance</u> As a nonsectarian, inclusive institution, NYU policy permits members of any religious group to absent themselves from classes without penalty when required for compliance with their religious obligations. Refer to the <u>University Calendar Policy on Religious Holidays</u> for the complete policy.
- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus, recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

<u>Turnitin</u>, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.

Read more about academic integrity policies at the NYU School of Professional Studies on the Academic Policies for NYU SPS Students page.

7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.

These services may require you to create an account, but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.



# **Data Mining and Data Warehousing**

MASY1-GC 3510-101| Fall 2022 | 9/12/2022 - 12/12/2022 | Mondays | 3 Credits Modality: In-Person Course Site URL: https://brightspace.nyu.edu/

### **General Course Information**

Name/Title: Joseph Ng, Adjunct Assistant Professor

NYU Email: Joseph.Ng@nyu.edu

Class Meeting Schedule: 9/12/2022 - 12/12/2022 | Mondays / 6:20 pm - 8:55 pm ET

Class Location: Bldg.: 7E12 Rm: 229

Office Hours: To arrange schedule, please email me at: Joseph.Ng@nyu.edu

### **Description**

In an increasingly competitive information age, data mining and data warehousing are essential in business decision-making. This course teaches students concepts, methods, and skills for working with data warehouses and mining data from these warehouses to optimize competitive business strategy. In this course, students develop analytical thinking skills required to identify effective data warehousing strategies such as when to use outsource or in-source data services. Students also learn to Extract, Transform and Load data into data warehouses (the ETL process) and use the CRISP approach to data mining to extract vital information for data warehouses. The course also teaches students how to secure data and covers the ethical issues associated with the uses of data and data models for business decisions.

# **Prerequisites**

1210 - Quantitative Models for Decision Makers

### **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Translate business requirements into a well-constructed, normalized conceptual and logical data models
- Apply logical database design and the relational model
- Apply the CRISP model to conduct successful data mining
- Establish a successful ETL process to load a data warehouse
- Write basic SQL statements including some advanced SQL features
- Employ appropriate data governance principles to assure data quality and security

### **Communication Methods**

Be sure to turn on your <u>NYU Brightspace notifications</u> and frequently check the "Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email. I will respond within 24 hours.

Credit students must use their NYU email to communicate. Non-degree students do not have NYU email addresses. Brightspace course mail supports student privacy and FERPA guidelines. The instructor will use the NYU email address to communicate with students. All email inquiries will be answered within 24 hours



Students have the opportunity to add their pronouns, as well as the pronunciation of their names, into Albert. Students can have this information displayed to faculty in Albert, Brightspace, and other NYU systems. Students can also opt out of having their pronouns viewed by their instructors.

https://www.nyu.edu/students/student-information-and-resources/registration-records-and-graduation/forms-policies-procedures/change-of-student-information/pronouns-and-name-pronunciation.html

# Structure | Method | Modality

There are 14 session topics in this course. The session topics are organized into three (3) areas of study: 1) History, 2) Learning Principles, and 3) Instructional Design in Practice.

Active learning experiences and small group projects are key components of the course. Assignments, papers, and exams will be based on course materials (e.g., readings, videos), lectures, and class discussions. Some course sessions may be conducted synchronously on NYU Zoom, which you can access from the course site in NYU Brightspace.

# **Expectations**

# Learning Environment

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

# Participation

You are integral to the learning experience in this class. Be prepared to actively contribute to class activities, group discussions, and work outside of class.

### Assignments and Deadlines

Students are required to complete (on their own) homework assignments following each chapter covered in the text, group case problems which will be periodically assigned, and a final exam.

All students must complete all course assignments. You should come to each class fully prepared, having read the assigned readings and completed the assignment(s), and actively engage in class discussions.

All assignments must be uploaded to the folder on NYU Brightspace labeled "Assignments." Each assignment sub-folder will include the detailed assignment description and grading criteria/rubric. The number of the assignments and their due dates are on the course outline that follows. Assignment due dates are final and non-negotiable. Late assignments are not accepted without prior written permission from the faculty and cannot be granted more than once throughout the semester. Failure to submit assignments on time will result in a grade reduction of 100% for assignment.

Assignments and readings must be executed and are due on the dates indicated at the time of assignment. Missed assignments will lower the student's grade based on the percentage of the grade allocable to it. Assignments will be graded for content and clarity.



# Course Technology Use

We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of Zoom. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes.

### **IT Service Desk**

(212)-998-3333

24 hours a day, 7 days a week

Email: AskIT@nyu.edu

# **Zoom Support**

- NYU Zoom Guide for Students
- Make sure you are using <u>NYU Zoom</u> to log-in for class
- Check the <u>NYU Zoom site</u> often for updates. (To update Zoom, you can also open from your desktop and click menu, then "Check for Updates.")

# **Brightspace Support**

- Log-in to the Brightspace platform or visit the Student Training website.
- Video on how to <u>Navigate the Bright Space Learning Environment</u>

### Feedback and Viewing Grades

I will provide timely meaningful feedback on all your work via our course site in NYU Brightspace. You can access your grades on the course site Gradebook.

### Attendance

Students are expected to attend all class sessions. Attendance will be taken into consideration when determining your final grade. Refer to the <u>SPS Policies and Procedures page</u> for additional information about attendance.

Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays:

https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

### **Textbooks and Course Materials**

List required and recommended resources. Be sure to include the following information for each:

Students can purchase these items through the NYU Bookstore.



# Required:

- The Kimball Group Reader: Relentlessly Practical Tools for Data Warehousing and Business Intelligence Remastered Collection
  - Authors Ralph Kimball, Margy Ross
  - Publisher Wiley; 2nd edition (February 1, 2016)
  - ISBN ISBN- 978-1-119-21659-9 or, ASIN: B01BEUOY4C
- Data Mining: Concepts, Models, Methods, and Algorithms, 3rd Edition
  - Authors Mehmed Kantardzic
  - o Publisher Wiley-IEEE Press, 2019
  - o **ISBN** 978-1-119-51607-1

### Recommended:

• Instructor may also provide session by session content, which will be posted online.

# **Grading | Assessment**

Your grade in this course is based on your performance on multiple activities and assignments. Since all graded assignments are related directly to course objectives and learning outcomes, failure to complete any assignment will result in an unsatisfactory course grade. All written assignments are to be completed using APA format and must be typed and double-spaced. Grammar, punctuation, and spelling will be considered in grading. Please carefully proof-read your written assignments before submitting them for a grade. I will update the grades on the course site each time a grading session has been completed—typically three (3) days following the completion of an activity.

<u>DESCRIPTION</u>	<u>PERCENTAGE</u>
Homework Assigned	10%
Team Project	30%
Participation	20%
Midterm Project	20%
Final Exam	20%
TOTAL POSSIBLE	100%

**Class Participation:** To receive full credit for the course, you are expected to attend all classes since much of the learning occurs during class lecture, presentation, and class discussions. You must contribute and engage in class dialogue during every class session for the course. Please contact the instructor if you anticipate missing any part of the class. Participation grades will be based on:

Involvement in class discussions, dialogues, and activities during each session Participation which demonstrates integration of reading, class work, relevance, and application. Willingness to learn by accepting feedback, trying new skills and approaches, etc. Quality/quantity of providing effective and balanced feedback.

**Homework:** Homework assignments must be submitted on time within 1 week of date assigned (unless otherwise instructed). Late submission will not be accepted altogether at instructor's discretion. All homework must be submitted to the appropriate assignment folder online.

**Group/Team Project:** There will be a group/team class project. The project will be a culmination of written, visual, and proper presentation skills. It will include the culmination of



topics, concepts and competencies learned in this class. The group project grade will be based on:

- Student level of participation in the team project.
- o Student will be assessed both as an individual, and as part of the overall team
- Individual contribution will be assessed by identifying the components of the project student worked on and contributed to the overall project (Example database creation, data preparation and load, etc.)
- Group contribution will be assessed on overall project depth of content, write-up, and delivery.
  - For the group assessment portion, all individuals within the group will receive the same grade.
- Fulfilment of all requirements stated for the project defined under "final project" on the course web site.
  - All groups have the same group assignment
  - All requirements for the group project are defined on the course web site.

**Midterm Exam:** There will be a midterm exam. The exam will be an open book, open notes/internet style exam. The exam will test the student's acquisition of topics, concepts and competencies learned in this class up to mid-term.

**Final Exam:** There will be a final exam. The exam will be an open book, open notes/internet style exam. The exam will test the student's acquisition of topics, concepts and competencies learned in this class. The final exam will only cover material covered in the second half of the term.

# **NYU SPS Graduate Grading Scale**

A	95-100	4.000	<b>Exceptional</b> : Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.
Α-	90-94	3.667	<b>Excellent</b> : Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	Very Good; exceeds course standards: Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	Good; meets course standards: Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
В-	80-82	2.667	Somewhat Satisfactory; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement: Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.



С	73-76	2.000	Unsatisfactory; requires substantial improvement: Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	Unsatisfactory; requires extensive improvement: Demonstrates poor understanding of all learning outcomes and core concepts; requires extensive improvement.
F	Below 70		<b>Fail</b> : Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.

From NYU SPS Policies and Procedures

See the <u>Grades section of Academic Policies</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.

### **Course Outline**

**Start/End Dates:** 9/12/2022 - 12/12/2022 | Mondays

**Time:** 6:20 pm - 8:55 pm ET

No Class Date(s): No class date: Labor Day - Monday, September 5, 2022 & Monday,

10/10/2022 - Legislative Day

Special Notes: Legislative Monday: Classes will meet according to a Monday schedule on

Tuesday, October 11, 2022

### Session 1 - 09/12/22

### **Topic Description** –

Introduction to Data Warehousing

### Assignments (due one week from today):

- Reading: Chapter 1 & 2 (The Kimball Group Reader)
- HW1: Individual Group Project Proposal

# Session 2 - 09/19/22

### Topic description -

Planning and Building the Data Warehouse

# Assignments (due one week from today):

- Reading: Chapter 3 & 4 (The Kimball Group Reader)
- HW2: Logical Data Model
- Group Project: Week 3 Project Proposal (2 points)

### Session 3 - 09/26/22

# **Topic description** -

• Data Warehouse Design



# Assignments (due one week from today):

- Reading: Chapter 5 (The Kimball Group Reader)
- HW3: Basic SQL

### Session 4 - 10/03/22

### **Topic description** -

Data Warehouse Schemas

# Assignments (due one week from today):

- Reading: Chapter 6 & 7 (The Kimball Group Reader)
- HW4: Enhanced SQL
- Group Project: Week 5 Transactional Database (3 points)

### Session 5 - 10/11/22

# Topic description -

Components of a Data Warehouse

# Assignments (due one week from today):

- Reading: Chapter 8 & 9 (The Kimball Group Reader)
- HW5: Physical Data Model

### Session 6 - 10/17/22

### Topic description -

The ETL Process

# Assignments (due one week from today):

• Reading: Chapter 11 (The Kimball Group Reader)

### Session 7 - 10/24/22

### **Topic description** -

Midterm Exam

### Assignments (due one week from today):

Group Project: Week 8 – Data Warehouse & ETL Process (5 points)

### Session 8 - 10/31/22

### **Topic description** -

Introduction to Python Programming Language

# Assignments (due one week from today):

• HW6: Python environment setup (screenshot)

# Session 9 - 11/07/22

# **Topic description** -



Introduction to Data Mining

# Assignments (due one week from today):

- Reading: Chapter 1 & 2 (Data Mining: Concepts, Models, Methods, and Algorithms)
- HW7: Python coding

### Session 10 - 11/14/22

### **Topic description** -

Getting to Know Your Data

# Assignments (due one week from today):

- Reading: Chapter 3 & 4 (Data Mining: Concepts, Models, Methods, and Algorithms)
- Group Project: Week 11 Report and Visualization (5 points)
- HW8: Python coding

### Session 11 - 11/21/22

Data Preprocessing

# Assignments (due one week from today):

- Reading: Chapter 5 (Data Mining: Concepts, Models, Methods, and Algorithms)
- HW9: Python coding

# Session 12 - 11/28/22

### **Topic description** -

Data Mining Techniques

# Assignments (due one week from today):

- Reading: Chapter 6, 9 (Data Mining: Concepts, Models, Methods, and Algorithms)
- Group Project: Week 13 Final Presentation (15 points)
- HW10: Python coding

### Session 13 - 12/05/22

# Topic description -

• Group Presentations

# **Assignments:**

Final Group Project Due

### Session 14 - 12/12/22

### **Topic description** -

Final Exam

### **Assignments:**

None

### **NOTES:**



The syllabus may be modified to better meet the needs of students and to achieve the learning outcomes.

The School of Professional Studies (SPS) and its faculty celebrate and are committed to inclusion, diversity, belonging, equity, and accessibility (IDBEA), and seek to embody the IDBEA values. The School of Professional Studies (SPS), its faculty, staff, and students are committed to creating a mutually respectful and safe environment (*from the* <u>SPS IDBEA Committee</u>).

# **New York University School of Professional Studies Policies**

- 1. <u>Policies</u> You are responsible for reading, understanding, and complying with <u>University</u> Policies and <u>Guidelines</u>, <u>NYU SPS Policies</u> and <u>Procedures</u>, and <u>Student Affairs and Reporting</u>.
- 2. <u>Learning/Academic Accommodations</u> New York University is committed to providing equal educational opportunity and participation for students who disclose their dis/ability to the <u>Moses Center for Student Accessibility</u>. If you are interested in applying for academic accommodations, contact the <u>Moses Center</u> as early as possible in the semester. If you already receive accommodations through the Moses Center, request your accommodation letters through the Moses Center Portal as soon as possible (mosescsa@nyu.edu | 212-998-4980).
- 3. <u>Health and Wellness</u> To access the University's extensive health and mental health resources, contact the <u>NYU Wellness Exchange</u>. You can call its private hotline (212-443-9999), available 24 hours a day, seven days a week, to reach out to a professional who can help to address day-to-day challenges as well as other health-related concerns.
- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the <u>NYU SPS Office of Student Affairs site</u>.
- 5. <u>Religious Observance</u> As a nonsectarian, inclusive institution, NYU policy permits members of any religious group to absent themselves from classes without penalty when required for compliance with their religious obligations. Refer to the <u>University Calendar Policy on Religious Holidays</u> for the complete policy.
- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

<u>Turnitin</u>, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.

Read more about academic integrity policies at the NYU School of Professional Studies on the Academic Policies for NYU SPS Students page.



7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.

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# **Quantitative Models for Decision Makers**

MASY1-GC 1210-101| Fall 2022 | 9/06/2022 - 12/13/2022 | Tuesdays | 3 Credits Modality: In-Person Course Site URL: https://brightspace.nyu.edu/

#### **General Course Information**

Name/Title: Joseph Ng, Adjunct Assistant Professor, He/Him/His

NYU Email: Joseph.Ng@nyu.edu

Class Meeting Schedule: 9/06/2022 - 12/13/2022 | Tuesdays / 6:20 pm - 8:55 pm ET

Class Location: Bldg.: MIDC Room:415

Office Hours: To schedule, please email me at: Joseph.Ng@nyu.edu

#### **Description**

This course prepares students to analyze operational and strategic business situations and select appropriate and optimal courses of action. Using quantitative tools, students learn to analyze the firm's operation, employ sound critical decision making to initiate appropriate action and move the organization to creative problem solving. This course provides students with the tools and techniques required to manage these processes efficiently and make decisions effectively.

## **Prerequisites**

N/A

## **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Apply appropriate mathematical concepts and computational methods in economics, operations research, logistics, and business planning
- Design, business case solutions using probability theory, numerical computations, and quantitative methods
- Apply skills and knowledge of advanced analytical methods and tools to facilitate decision making
- Analyze business problems using linear programming and network flow management for decision making

## **Communication Methods**

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## Structure | Method | Modality

There are 14 session topics in this course. The session topics are organized into three (3) areas of study: 1) History, 2) Learning Principles, and 3) Instructional Design in Practice.

Active learning experiences and small group projects are key components of the course. Assignments, papers, and exams will be based on course materials (e.g., readings, videos), lectures, and class discussions. Course sessions will be conducted synchronously on NYU Zoom, which you can access from the course site in NYU Brightspace.

## **Expectations**

## **Learning Environment**

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

#### **Participation**

You are integral to the learning experience in this class. Be prepared to actively contribute to class activities, group discussions, and work outside of class.

## Assignments and Deadlines

Students are required to complete (on their own) homework assignments following each chapter covered in the text, group case problems which will be periodically assigned, and a final exam.

All students must complete all course assignments. You should come to each class fully prepared, having read the assigned readings and completed the assignment(s), and actively engage in class discussions.

All assignments must be uploaded to the folder on NYU Brightspace labeled "Assignments." Each assignment sub-folder will include the detailed assignment description and grading criteria/rubric. The number of the assignments and their due dates are on the course outline that follows. Assignment due dates are final and non-negotiable. Late assignments are not accepted without prior written permission from the faculty and cannot be granted more than once throughout the semester. Failure to submit assignments on time will result in a grade reduction of 100% for assignment.

Assignments and readings must be executed and are due on the dates indicated at the time of assignment. Missed assignments will lower the student's grade based on the percentage of the grade allocable to it. Assignments will be graded for content and clarity.

## Course Technology Use

We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of Zoom. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes.



#### **IT Service Desk**

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Email: AskIT@nyu.edu

## **Zoom Support**

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- Make sure you are using NYU Zoom to log-in for class
- Check the <u>NYU Zoom site</u> often for updates. (To update Zoom, you can also open from your desktop and click menu, then "Check for Updates.")

## **Brightspace Support**

- Log-in to the Brightspace platform or visit the Student Training website.
- Video on how to <u>Navigate the Bright Space Learning Environment</u>

## Feedback and Viewing Grades

I will provide timely meaningful feedback on all your work via our course site in NYU Brightspace. You can access your grades on the course site Gradebook.

## Attendance

Students are expected to attend all on-line class sessions. Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

If for some reason (excused absence) you will not be in class, you must notify the instructor prior to the scheduled session if you will not be attending and the reason.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

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https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

Refer to the SPS Policies and Procedures page for additional information about attendance.

#### **Textbooks and Course Materials**

An Introduction to Management Science: Quantitative Approaches to Decision Making; Anderson, Sweeney, Williams, Camm, Cochran, Fry, Ohlmann. CENGAGE Learning; 2019; 15th Edition.

ISBN-13: 978-1337406529 ISBN-10: 133740652X

Relevant chapters to be assigned during the term.

Occasional additional short readings may be provided during the term.



## **Grading | Assessment**

Your grade in this course is based on your performance on multiple activities and assignments. Since all graded assignments are related directly to course objectives and learning outcomes, failure to complete any assignment will result in an unsatisfactory course grade. All written assignments are to be completed using APA format and must be typed and double-spaced. Grammar, punctuation, and spelling will be considered in grading. Please carefully proof-read your written assignments before submitting them for a grade. I will update the grades on the course site each time a grading session has been completed—typically three (3) days following the completion of an activity.

Contributing factors for determining your course grade include:

Class Participation: 20 percent

Individual Homework Assignments: 35 percent

Group Assignments 30 percent

Methodology (50%) & Presentation (50%)

Final Exam: 15 percent

TOTAL 100 percent

<u>DESCRIPTION</u>	<b>PERCENTAGE</b>
Individual Homework Assignments (total of 6)	35%
Group Assignments (total of 2)	30%
Methodology (50%) & Presentation (50%)	
Class Participation	20%
Final Exam	15%
TOTAL POSSIBLE	100%

There will be six individual homework assignments (a total of 35 problems from the textbook), given out as we progress through the text. The weight per each homework toward the total Individual Homework Assignment grade is a function of the number of problems assigned in that homework. E.g., if Homework 1 has five problems, and over the semester a total of thirty-five homework problems are assigned, then Homework 1 comprises 5/35ths or 5% of your total Individual Homework Assignment grade. All homework assignments are graded and returned.

I expect we will have time for two Group Assignments. If two, each Group Assignment will contribute 15% to your total Group Assignments grade. Fifty percent of each Group Assignment grade will be based on whether the group uses the appropriate methodologies and determines the correct answer to the problems. The Group Assignments are Case Problems from the text or similar problems. Fifty percent of the grade will be assessed on the group's ability to clearly present the problems and solutions.

Each team member will be expected to be responsible for analyzing a specific aspect of the strategic decision-making metrics for the team's chosen company. This analysis will form the basis for assessing each individual student's contributions towards the group results.

Class Participation consists of asking questions and engaging in class discussions.

The Final Exam will consist of fifteen to twenty quantitative problems. The weight of each problem toward the calculation of the Final Exam grade will be indicated on the exam.



See the <u>"Grades" section of Academic Policies</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.

## **NYU SPS Graduate Grading Scale**

A	95-100	4.000	<b>Exceptional</b> : Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.
Α-	90-94	3.667	<b>Excellent</b> : Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	Very Good; exceeds course standards: Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	Good; meets course standards: Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
B-	80-82	2.667	Somewhat Satisfactory; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement: Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.
С	73-76	2.000	Unsatisfactory; requires substantial improvement: Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	Unsatisfactory; requires extensive improvement: Demonstrates poor understanding of all learning outcomes and core concepts; requires extensive improvement.
F	Below 70		<b>Fail</b> : Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.

From NYU SPS Policies and Procedures

## **Course Outline**

**Start/End Dates:** 9/06/2022 - 12/13/2022 | Tuesdays

Time: 6:20 pm - 8:55 pm ET



**No Class Date(s):** No class date: Tuesday, 10/11/2022 - Legislative Day **Special Notes:** Due to Legislative Monday, there will be no class on Tuesday, October 11, 2022. This day is reserved for Monday class sessions only.

Learning Goals: (Classes and dates below are estimates and subject to change)

All assignments due are submitted with standard template provided and must be submitted via the NYU Brightspace site by 5 PM before the beginning of each class.

Filename format is as follows: QMDM (Assignment #) (Last name First name).docx

Example: QMDM HW1 LastnameFirstname.docx

## Session 1, 09/06/22

A general knowledge of the uses of Management Science in problem solving and an introduction to some commonly used techniques. HW1 - Chapter 1, Problems 8-16, due 9/20.

## Session 2, 09/13/22 & Session 3, 09/20/22

The ability to model, analyze, and solve business problems using graphic and algebraic methods of linear programming. HW2 - Chapter 2, Problems 6, 7, 10, 12, due 10/4.

## Session 4, 09/27/22 & Session 5, 10/04/22

Skill in achieving an optimal strategy in situations with several decision alternatives or uncertainty, utilizing different methodologies involving probabilities and mathematical models. HW3 - Chapter 13, Problems 5, 7a, 9, 11, 13, 15, due 10/25.

## Session 6, 10/18/22

Group Project Presentations. Group projects due 10/18.

#### Session 7, 10/25/22 & Session 8, 11/01/22

The ability to recognize and solve different types of network flow problems, using linear programming. HW4 - Chapter 6, Problems 3a-b, 5a-b (formulate only), 9, 13a-b (formulate only), due 11/8.

## Session 9, 11/08/22

The ability to utilize analytical tools such as Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) to solve planning and scheduling problems. HW5 - Chapter 9, Problems 6, 7, 13, 15, due 11/22.

## Session 10, 11/15/22 & Session 11, 11/22/22

A fundamental understanding of the applications of Queuing Theory and the ability to solve basic queuing problems. HW6 - Chapter 11, Problems 1, 2, 3, 4, 9, due 12/6.

## Session 12, 11/29/22

Group Project Presentations. Group projects due 11/29.

#### Session 13, 12/06/22

Final Questions Sampling and Review.

## Session 14, 12/13/22

Final Exam.



This class will cover the following content:
Introduction to Management Science – Quantitative Analysis, Modeling, Methods
Linear Programming – Graphical Solutions, Extreme Points, Sensitivity Analysis, Applications
Decision Analysis
Distribution and Network Models
Project Scheduling – PERT/CPM
Queuing Theory/Waiting Line Models

## NOTES:

The syllabus may be modified to better meet the needs of students and to achieve the learning outcomes.

The School of Professional Studies (SPS) and its faculty celebrate and are committed to inclusion, diversity, belonging, equity, and accessibility (IDBEA), and seek to embody the IDBEA values. The School of Professional Studies (SPS), its faculty, staff, and students are committed to creating a mutually respectful and safe environment (*from the* SPS IDBEA Committee).

## **New York University School of Professional Studies Policies**

- 1. <u>Policies</u> You are responsible for reading, understanding, and complying with <u>University</u> Policies and Guidelines, NYU SPS Policies and Procedures, and Student Affairs and Reporting.
- 2. <u>Learning/Academic Accommodations</u> New York University is committed to providing equal educational opportunity and participation for students who disclose their dis/ability to the <u>Moses Center for Student Accessibility</u>. If you are interested in applying for academic accommodations, contact the <u>Moses Center</u> as early as possible in the semester. If you already receive accommodations through the Moses Center, request your accommodation letters through the Moses Center Portal as soon as possible (mosescsa@nyu.edu | 212-998-4980).
- 3. <u>Health and Wellness</u> To access the University's extensive health and mental health resources, contact the <u>NYU Wellness Exchange</u>. You can call its private hotline (212-443-9999), available 24 hours a day, seven days a week, to reach out to a professional who can help to address day-to-day challenges as well as other health-related concerns.
- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the <u>NYU SPS Office of Student Affairs site</u>.
- 5. <u>Religious Observance</u> As a nonsectarian, inclusive institution, NYU policy permits members of any religious group to absent themselves from classes without penalty when required for compliance with their religious obligations. Refer to the <u>University Calendar Policy on Religious Holidays</u> for the complete policy.
- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.



Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

<u>Turnitin</u>, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.

Read more about academic integrity policies at the NYU School of Professional Studies on the Academic Policies for NYU SPS Students page.

7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.

These services may require you to create an account but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.



# **Database Technologies for Web Applications**

MASY1-GC 3540-100| Fall 2022 | 9/07/2022 - 12/14/2022 | Wednesdays | 3 Credits Modality: In-Person

Course Site URL: https://brightspace.nyu.edu/d2l/home/196089

#### **General Course Information**

Name/Title: David Prager, Adjunct Instructor ,He/Him/His

NYU Email: david.prager@nyu.edu

Class Meeting Schedule: 9/07/2022 - 12/14/2022 | Wednesdays / 2:15-4:50)

Class Location: Bldg.: 7E12 Rm: 229

Office Hours: By appointment; please e-mail me to arrange

#### **Description**

This course examines the database and related applications technologies that have come to be critical in the enablement of web-based applications for e-commerce in its many variations. This lab-based course provides an in-depth study of using database technologies in the context of the Internet, including Oracle, and open-source variations such as MySQL; the role of related scripting languages such as PHP. Also covered are the theory and practice involved in dynamic, database driven websites that are controlled using CSS and other web-enabling artifacts. Upon completion of this course, the student will understand the features of page scripting languages; understand the database options available for the web-based applications; explain how these can be combined with each other and with additional web-based tools to create effective web-based applications.

## **Prerequisites**

3500 - Database Design and Management

### **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Construct HTML pages and specifically containing HTML grids and forms
- Integrate CSS with HTML to improve visual web page presentation
- Create database tables to support web interaction.
- Construct an end-to-end database driven web application
- Develop PHP or Python code and integrate that with HTML and database to build web applications
- Select the appropriate features of page scripting languages and database options for webbased applications

## **Communication Methods**

Be sure to enable <a href="NYU Brightspace notifications">NYU Brightspace notifications</a> for updates to Discussions and check your email frequently. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email. I typically respond within 24 hours.

Credit students must use their NYU email to communicate. Brightspace course mail supports student privacy and FERPA guidelines.



Students have the opportunity to add their pronouns, as well as the pronunciation of their names, into Albert. Students can have this information displayed to faculty in Albert, Brightspace, and other NYU systems. Students can also opt out of having their pronouns viewed by their instructors.

https://www.nyu.edu/students/student-information-and-resources/registration-records-and-graduation/forms-policies-procedures/change-of-student-information/pronouns-and-name-pronunciation.html

## Structure | Method | Modality

This course will meet in-person, once a week on Wednesdays. Brightspace is the learning management system we will use for assignments, announcements, and emails. The course will encompass lectures, assignments, a final exam, and a team project. All class content will be made available online via Brightspace. Students should check the web site daily for any updates or announcements.

#### **Expectations**

## **Learning Environment**

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

## **Participation**

You are integral to the learning experience in this class. You are expected to participate in each class session by offering your understanding of the subject, sharing ideas, or discussing/commenting on another student's comment.

## **Assignments and Deadlines**

Students must complete and submit all assigned homework on time. Late submission of homework will either not be accepted or will result in a lower grade.

See full detail of expectations under "Grading/Assessment" below. Further information about specific assignments can also be found in the "Course Outline" section.

## **Course Technology Use**

You are required to have your own laptop in class. Class sessions may make use of Zoom. You may be required to download the following software to your laptop:

- Amazon Workspaces
- MySQL
- PhpStorm
- PHP Interpreter

Detailed instructions will be provided for downloading, installing, and configuring this software.

#### IT Service Desk

(212)-998-3333

24 hours a day, 7 days a week

Email: AskIT@nyu.edu

## **Zoom Support**

NYU Zoom Guide for Students



## **Brightspace Support**

- Log-in to the Brightspace platform or visit the Student Training website.
- Video on how to Navigate the Bright Space Learning Environment

## Feedback and Viewing Grades

I will provide timely meaningful feedback on all your work via the course site in NYU Brightspace. You can access your grades on the course site Gradebook.

## **Attendance**

I expect you to attend all class sessions. Attendance will be taken into consideration when determining your final grade. Refer to the <u>SPS Policies and Procedures page</u> for additional information about attendance.

Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on your final grade. Students are responsible for assignments given during any absence.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays:

https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

## **Textbooks and Course Materials**

The following is the required text:

Learning PHP, MySQL & JavaScript (6th Edition) by Robin Nixon

ISBN-13: 978-1-492-09382-4 Publisher: O'Reilly, 2021

This book is available to you online at no cost. In order to access it via Brightspace, click on More Tools, then Course Reserves and then the View Item link.

The following are recommended online resources to supplement the required text:

- W3Schools online tutorials for HTML, CSS, PHP, and SQL
- LinkedIn Learning video tutorials for HTML, CSS, PHP, and SQL

Instructor may also provide session by session content, which will be posted online.

## **Grading | Assessment**

Your grade in this course is based on your performance on multiple activities and assignments. Since all graded assignments are related directly to course objectives and learning outcomes, failure to complete any assignment will result in an unsatisfactory course grade. Please carefully



proof-read your assignments before submitting them for a grade. I will update the grades on the course site each time a grading session has been completed—typically three (3) days following the completion of an activity.

<u>DESCRIPTION</u>	<u>PERCENTAGE</u>
Assigned Activities (total of 6)	50%
Quizzes (total of 9)	10%
Participation	10%
Project	20%
Final Exam	10%
TOTAL POSSIBLE	100%

**Individual Homework Assignments**: Homework assignments must be submitted on time. In general, the due date for assignments will be either 1 or 2 weeks following the date assigned (unless otherwise instructed). Late submission will severely impact your homework grade or may not be accepted altogether, at instructor's discretion. All homework must be submitted to Brightspace before the due date.

**Reading Quizzes**: You are required to be prepared for class and as such will be assigned reading/research materials the week prior to each class. There will be a reading quiz based on the reading assignments of the week.

**Class Participation**: To receive full credit for the course, you should attend all classes since much of the learning occurs during class lectures, presentations, and class discussions. Please contact the instructor if you anticipate missing any part of the class. Participation grades will be based on:

- Involvement in class discussions and activities
- Participation which demonstrates integration of reading, class work, relevance, and application.
- Willingness to learn by accepting feedback, trying new skills and approaches, etc.
- Quality/quantity of providing effective and balanced feedback.

**Group/Team Project**: There will be a group/team class project. The project will be the culmination of topics, concepts and competencies learned in this class. There will be various project milestone deliverables during the semester. These are intended to ensure that progress is being made on the project and allow a dialog with the instructor regarding the requirements. The group project grade will be based on:

- Student level of participation in the team project.
- Student will be assessed both as an individual, and as part of the overall team
- Individual contribution will be assessed by identifying the components of the project student worked on and contributed to the overall project (Example database creation, data preparation and load, etc.)
- Group contribution will be assessed on overall project depth of content and delivery.
   For the group assessment portion, all individuals within the group will receive the same grade.
- Fulfilment of all requirements stated for the project defined under "final project" on the course web site.

All groups have the same group assignment. Requirements for the group project will be defined on the course web site.



**Final Exam:** There will be a final exam. The exam will be an open book, open notes/internet style exam. The exam will test the student's acquisition of topics, concepts and competencies learned in this class. Email and Instant Messaging (WeChat etc.) are strictly prohibited.

See the <u>"Grades" section of Academic Policies"</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.

## **NYU SPS Graduate Grading Scale**

A	95-100	4.000	<b>Exceptional</b> : Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.
<b>A</b> -	90-94	3.667	<b>Excellent</b> : Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	Very Good; exceeds course standards: Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	Good; meets course standards: Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
В-	80-82	2.667	Somewhat Satisfactory; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement: Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.
С	73-76	2.000	Unsatisfactory; requires substantial improvement: Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	Unsatisfactory; requires extensive improvement: Demonstrates poor understanding of all learning outcomes and core concepts; requires extensive improvement.
F	Below 70		Fail: Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.

From NYU SPS Policies and Procedures



#### **Course Outline**

**Start/End Dates:** 9/07/2022 - 12/14/2022 | Wednesdays

Time: 2:15 pm - 4:50 pm ET

No Class Date(s): No class date: Wednesday, 11/23/22, Fall Break

Special Notes: N/A

## Week 1, September 7, 2022, Course Introduction and Web Architecture

Student and Instructor Introductions

Review of Syllabus

Web Architecture

## **Assignments:**

None

## Reading:

www.w3schools.com: SQL Database LinkedIn Learning: MySQL Essentials

## Week 2, September 14, 2022, Creating Databases and Querying Data

Create and drop databases

- Insert data into database tables
- Query data in databases

## Assignments due midnight 09/20/22:

Reading Quiz 1: HTML

Assignment 1 Create database and run reports

## Reading:

www.w3schools.com: HTML

## Week 3, September 21, 2022, HTML

Using HTML to create page content

## Assignment due midnight 09/27/22:

Reading Quiz 2: CSS

## Assignment due midnight 10/04/22:

Assignment 2 - Produce website design

## Reading:

Nixon text: Chapter 18 CSS

## Week 4, September 28, 2022, Cascading Style Sheets (CSS)

Using CSS to enhance website

## Assignment due midnight 10/4/22:

Reading Quiz 3: Flexbox

Assignment 2 - Produce website design

Project milestone #1 – Database Design

#### Reading:

www.w3schools.com: Flexbox

## Week 5, October 5, 2022, Advanced CSS

Using Flexboxes and Grids

## Assignment due midnight 10/11/22:

Reading Quiz 4: Basic PHP



## Assignment due midnight 10/18/22:

Assignment 3 - Develop Static website

## Reading:

Nixon text: Chapter 3 & 4

## Week 6, October 12, 2022, Introduction to Programming and PHP

PHP Data Structures, Operators and Program Flow

## Assignment due midnight 10/18/22

Reading Quiz 5: PHP Arrays

Assignment 3 - Develop Static website

## Reading:

Nixon text: Chapter 6

LinkedIn Learning: PHP Essentials

## Week 7, October 19, 2022, PHP Arrays

PHP Arrays

## Assignment due midnight 10/25/22

Reading Quiz 6: PHP Functions

Project milestone #2 – Welcome Page

## Assignment due midnight 11/1/22

Assignment 4 - Make website Dynamic

## Reading:

Nixon text: Chapter 5

## Week 8, October 26, 2022, PHP Functions

PHP Functions

## Assignment due midnight 11/1/22

Reading Quiz 7: Forms

Assignment 4 - Make website Dynamic

## Reading:

Nixon text: Chapter 11

## Week 9, November 2, 2022, Form Creation & Validation

- HTML Forms
- HTTP POST and GET methods
- Validating HTML forms
- RegEx

## Assignment due midnight 11/8/22

Reading Quiz 8: Persistence

Assignment 5 - Add shopping cart and checkout pages

## Reading:

Nixon text: Chapter 12

## Week 10, November 9, 2022, Creating Persistence on the Web

- Use of cookies
- Session Control

## Assignment due midnight 11/15/22

Reading Quiz 9: Database Access



Project Milestone #3 - Reservation and Confirmation Pages

## Assignment due midnight 11/22/22

Assignment 6 - Complete shopping transaction

Reading:

Nixon text: Chapter 10

## Week 11, November 16, 2022, Database Access

PHP Database objects

## Assignment due midnight 11/22/22

Assignment 6 - Complete shopping transaction

Reading:

None

## Week 12, November 30, 2022, Jeopardy!!

Let the Games begin

## Assignment due midnight 12/6/22

Complete Project

Reading:

None

## Week 13, December 7, 2022, Project Presentations

- Project Presentations
- Course Review

Reading:

None

## Week 14, December 14, 2022, Final Exam

Final Exam

#### NOTES:

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Moses Center Portal as soon as possible (mosescsa@nyu.edu | 212-998-4980).

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These services may require you to create an account, but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

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# Information Technology & Data Analytics

MASY1-GC 1240-103| Fall 2022 | 9/12/2022 - 12/12/2022 | Mondays | 3 Credits

Modality: In-Person

Course Site URL: https://brightspace.nyu.edu/

### **General Course Information**

Name/Title: Rajeev Maharaj, Adjunct Professor, Pronouns (dropdown).

NYU Email: rm2966@stern.nyu.edu

Class Meeting Schedule: 9/12/2022 - 12/12/2022 | Mondays / 2:00 pm - 4:35 pm ET

Class Location: Bldg:MIDC Room:1022

Office Hours: Students will have an opportunity to schedule via phone or email.

## **Description**

In this course, the organization is examined as a system, and the roles of information and computers are explored to facilitate the specification, development, implementation and maintenance of information technology for supporting organization decision-making and strategic planning in today's information age. Students apply the information management principles, techniques, and best practices to analyze and manage an organization's information technology activities. The course examines the role of information within organizations, provides an overview of modern hardware and software platforms and systems development architectures and introduces students to e-commerce databases and data warehouses. It also covers computer crime and forensics and how people and information can be protected through information security and privacy.

## **Prerequisites**

N/A

## **Learning Outcomes**

At the conclusion of this course, students will be able to:

- · Assess organizational information technology system requirements
- Develop plans to acquire, develop, and deploy information technology systems for the firm
- Propose improvements to business processes efficiency and effectiveness through the use of information technology
- Create plans to utilize current and emerging information technologies better aligned with individual, organizational, and societal needs
- Develop business proposals including IT elements to achieve an organization's strategic and tactical objectives

#### **Communication Methods**

Sample Text

Be sure to turn on your NYU Brightspace notifications and frequently check the



"Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email. I will respond within 24 hours.

Credit students must use their NYU email to communicate. Non-degree students do not have NYU email addresses. Brightspace course mail supports student privacy and FERPA guidelines. The instructor will use the NYU email address to communicate with students. All email inquiries will be answered within 24 hours.

Students have the opportunity to add their pronouns, as well as the pronunciation of their names, into Albert. Students can have this information displayed to faculty in Albert, Brightspace, and other NYU systems. Students can also opt out of having their pronouns viewed by their instructors.

https://www.nyu.edu/students/student-information-and-resources/registration-records-and-graduation/forms-policies-procedures/change-of-student-information/pronouns-and-name-pronunciation.html

## Structure | Method | Modality

This course is In-person and will meet once a week on Monday. Brightspace is the learning management system we will use. Weekly lesson and Forums will be posted frequently throughout the course. Students should check the course site often during the week.

Active learning experiences and small group projects are key components of the course. Assignments, papers, and exams will be based on course materials (e.g., readings, videos), lectures, and class discussions.

## **Expectations**

#### Learning Environment

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

### Participation

You are integral to the learning experience in this class. Be prepared to actively contribute to class activities, group discussions, and work outside of class.

#### Assignments and Deadlines

Lessons have been created for each of our 14 sessions. They each contain a mix of required content and assignments. Assignments and readings must be performed and are due on the dates indicated in the Lesson or Assignment. Please be sure to complete all of the content and assignments by the dates specified in order to receive credit. Missed assignments will lower the student's grade based on the percentage of the grade allocable to it. Late assignments will not be permitted without advanced permission from the professor. No credit will be assigned for unexcused late assignments.

## Course Technology Use



We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of Zoom. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes.

#### IT Service Desk

(212)-998-3333

24 hours a day, 7 days a week

Email: AskIT@nyu.edu

## **Zoom Support**

- NYU Zoom Guide for Students
- Make sure you are using <u>NYU Zoom</u> to log-in for class
- Check the <u>NYU Zoom site</u> often for updates. (To update Zoom, you can also open from your desktop and click menu, then "Check for Updates.")

## **Brightspace Support**

- Log-in to the <u>Brightspace</u> platform or visit the <u>Student Training</u> website.
- Video on how to Navigate the Bright Space Learning Environment

## Feedback and Viewing Grades

I will provide timely meaningful feedback on all your work via our course site in NYU Brightspace. You can access your grades on the course site Gradebook.

#### Attendance

Students are expected to attend all class sessions. Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

If for some reason (excused absence) you will not be in class, you must notify the instructor prior to the scheduled session if you will not be attending and the reason.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays:

https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

Refer to the SPS Policies and Procedures page for additional information about attendance.



## **Textbooks and Course Materials**

List required and recommended resources. Be sure to include the following information for each:

- Textbook: Turban, Pollard, Wood; Information Technology for Management, 12th Wiley, April 2021, ISBN:978-1-119-70290-0
- Case Study: Duhigg, Charles; How Companies Learn Your Secrets, 2012, The New York Times Magazine. https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html

Students can purchase these items through the NYU Bookstore.

Textbook and course pack are available from the NYU bookstore at: <a href="http://shopnyu.com/">http://shopnyu.com/</a>.

## **Grading | Assessment**

#### **Examinations**

Two short tests will be conducted, in sessions 7 and 14. These tests will be during class sessions. The tests will be non-cumulative and cover the material covered in the first and last half of the course, respectively.

## **Individual Project**

There will be an individual project in this course. The project will be to develop a comprehensive analysis and response to specific questions posed for a case:

• Duhigg, Charles; How Companies Learn Your Secrets, 2012, The New York Times Magazine. https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html The specifics and format will be discussed in more detail in class and detailed on the course

website. The assignment will be due for Session 13.

<u>DESCRIPTION</u>	<u>PERCENTAGE</u>
Participation (in-class, online and in ground	u <del>ps) 5</del> %
Completion of assignments specified in	Lessons 25%
Individual Project	20%
Test 1	25%
Test 2	25%
TOTAL POSSIBLE	100%

See the <u>"Grades" section of Academic Policies</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.

### **Course Outline**

#### **Course Outline**

**Start/End Dates:** 9/12/2022 - 12/12/2022 | Mondays

Time: 2:00 pm - 4:35 pm ET

No Class Date(s): Choose an item.

Special Notes: Legislative Monday: Classes will meet according to a Monday schedule



on Tuesday, October 11, 2022

#### Session 1 - 09/12/22

## Introduction

- Define management information systems (MIS) and describe the three important organizational resources within it—people, information, and information technology.
- Describe how to use break-even analysis to assess the financial impact of information technology.
- Describe how to use Porter's Five Forces Model to evaluate the relative attractiveness of and competitive pressures in an industry.
- Compare and contrast Porter's three generic strategies and the run-grow-transform framework as approaches to the development of business strategy.

### Session 2 - 09/19/22

## Role of MIS & IT

- Define supply chain management (SCM) systems and describe their strategic and competitive opportunities.
- Define customer relationship management (CRM) systems and describe their strategic and competitive opportunities.
- Explain the significance of enterprise resource planning (ERP) software as the integration of functional software systems.
- Define social media and describe a few of its many dimensions that make it important in the business world.

## Session 3, 09/26/22

## Structuring Data

- List and describe the key characteristics of a relational database.
- Define the five software components of a database management system.
- List and describe the key characteristics of a data warehouse.
- Define the five major types of data-mining tools in a data warehouse environment.
- List key considerations in information ownership in an organization.

## Session 4, 10/03/22

## IT Supported Decision making

- Compare and contrast decision support systems and geographic information systems.
- Describe the decision support role of specialized analytics like predictive analytics and text analytics.
- Describe the role and function of an expert system in analytics.
- Explain why neural networks are effective decision support tools.
- Define genetic algorithms and the types of problems they help solve.
- Describe data-mining agents and multi-agent systems as subsets of intelligent agents and agent-based technologies.



## Session 5, 10/10/22

## **Data Analytics**

- Define of data analytics and how it fits with the concepts of business intelligence and data analysis that we have already discussed.
- Provide a practical roadmap for implementing analytics in a big data environment.
- Discuss some of the pitfalls that you might find.
- Describe the evolution and future directions of analytics

## Session 6, 10/17/22

### E-Commerce

- Define and describe the nine major e-commerce business models.
- Identify the differences and similarities among customers and their perceived value of products and services in the B2B and B2C e-commerce business models.
- Compare and contrast the development of a marketing mix for customers in the B2B and B2C e-commerce business models.
- Summarize the various ways of moving money in the world of e-commerce and related issues.
- Discuss some major trends that are impacting both the e-commerce business world and society in general.

## Session 7, 10/24/22

#### Test 1

Test on content and reading for first half of the course.

## Session 8, 10/31/22

## System Development One

- Define the traditional systems development life cycle (SDLC) and describe the seven major phases within it.
- Compare and contrast the various component-based development methodologies.
- Describe the self-sourcing process as an alternative to the traditional systems development life cycle.
- Discuss the importance of prototypes and prototyping within any systems development methodology.
- Describe the outsourcing environment and how outsourcing works.

## Session 9, 11/07/22

## System Development Two

- Identify software development methods.
- Describe three development methodologies.



- Compare and contrast Waterfall and Agile development methods.
- Describe Agile method and Scum in detail.
- · Perform case study.

## Session 10, 11/14/22

## **IT Outside the Enterprise**

- Describe how a service-oriented architecture can be used as a philosophical approach to help the organization of the future meet all its IT-related needs.
- Define and describe the various hardware and software infrastructure considerations in an organization.
- Describe cloud computing, its various implementations, and its advantages.
- Compare and contrast commonly used metrics for assessing the success of IT systems and IT-related initiatives.
- Describe business continuity planning (BCP) and its phases.

## Session 11, 11/21/22

## Information Security & Privacy

- Define ethics and describe the two factors that affect how you make a decision concerning an ethical issue.
- Define and describe intellectual property, copyright, Fair Use Doctrine, and pirated software.
- Define privacy and describe ways in which it can be threatened.
- Describe the ways in which information on your computer or network is vulnerable and list measures you can take to protect it.

#### Session 12. 11/28/22

## **Emerging Trends**

- Define the various types of technologies that are emerging as we move toward physiological interaction with technology.
- Define the various types of technologies that are emerging as we move toward physiological interaction with technology.
- Describe the emerging trends of Near Field Communication, Bluetooth, Wi-Fi, smartphones, and RFID, as they relate to the wireless environment.
- Define and describe emerging technologies that, while purely technology, can and will impact the future.

#### Session 13, 12/05/22

## Individual Project

- Individual project
- Course Summary



## Session 14, 12/12/22

## Test 2

• Test on content and reading for second half of the course.

## **IMPORTANT OUTLINE DATES:**

Session	Date	Topic(s)	IT for Mgmt Readings	Assignments
1	09/12/22	Introduction	Chapter 1	
2	09/19/22	Information Systems, IT infra, and the cloud	Chapter 2	Videos, Forum postings
3	09/26/22	Data Management	Chapter 3	Case study
4	10/03/22	Data Privacy and Cyber Security	Chapter 5	Supplemental readings, Videos
5	10/10/22	Data Science	Chapters 6	Forum postings, Case study, Supplemental reading, Videos
6	10/17/22	E-Commerce	Chapter 8	Supplemental readings, videos
7	10/24/22	Test 1		
8	10/31/22	Functional Business Systems	Chapter 9	Forum postings, Case study, Videos, Supplemental reading
9	11/07/22	Enterprise Systems	Chapter 10	Supplemental reading, Videos
10	11/14/22	IAI, Robotics and Quantum Computing	Chapter 11	Case study, Supplemental reading
11	11/21/22	IIT Strategy	Chapter 12	Case study, Supplemental reading
12	11/28/22	Systems Dev and Project Management	Chapter 13	Forum postings, Supplemental reading
13	12/05/22	IT Ethics and Local and Global Sustainability		Forum postings, Individual project
14	12/12/22	Test 2		

--All assignments and due dates subject to change—

At the discretion of the faculty, the syllabus may be modified to better meet the needs of the students and to achieve the learning outcomes established in the syllabus.

## **NOTES:**

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The School of Professional Studies (SPS) and its faculty celebrate and are committed to inclusion, diversity, belonging, equity, and accessibility (IDBEA), and seek to embody the



IDBEA values. The School of Professional Studies (SPS), its faculty, staff, and students are committed to creating a mutually respectful and safe environment (*from the* <u>SPS IDBEA</u> <u>Committee</u>).

## **New York University School of Professional Studies Policies**

- 1. <u>Policies</u> You are responsible for reading, understanding, and complying with University Policies and Guidelines, NYU SPS Policies and Procedures, and Student Affairs and Reporting.
- 2. <u>Learning/Academic Accommodations</u> New York University is committed to providing equal educational opportunity and participation for students who disclose their dis/ability to the Moses Center for Student Accessibility. If you are interested in applying for academic accommodations, contact the Moses Center as early as possible in the semester. If you already receive accommodations through the Moses Center, request your accommodation letters through the Moses Center Portal as soon as possible (mosescsa@nyu.edu | 212-998-4980).
- 3. <u>Health and Wellness</u> To access the University's extensive health and mental health resources, contact the NYU Wellness Exchange. You can call its private hotline (212-443-9999), available 24 hours a day, seven days a week, to reach out to a professional who can help to address day-to-day challenges as well as other health-related concerns.
- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the NYU SPS Office of Student Affairs site.
- 5. <u>Religious Observance</u> As a nonsectarian, inclusive institution, NYU policy permits members of any religious group to absent themselves from classes without penalty when required for compliance with their religious obligations. Refer to the <u>University Calendar Policy</u> on <u>Religious Holidays</u> for the complete policy.
- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

Turnitin, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.



Read more about academic integrity policies at the NYU School of Professional Studies on the Academic Policies for NYU SPS Students page.

7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.

These services may require you to create an account but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.



# **Research Process & Methodology**

MASY1-GC 1260-101 | Fall 2022 | 9/01/2022 - 12/08/2022 | Thursdays | 3 Credits Modality: In-Person

Course Site URL: <a href="https://brightspace.nyu.edu/d2l/home/196026">https://brightspace.nyu.edu/d2l/home/196026</a>

## **General Course Information**

Name/Title: Jonathan Williams, Adjunct Assistant Professor, He/Him/His

NYU Email: jonathan.w.williams@nyu.edu

Class Meeting Schedule: 9/01/2022 - 12/08/2022 | Thursdays / 6:20 pm - 8:55 pm ET

Class Location: Midtown, 11 W 42nd St, Room 1020

**Office Hours:** Office hours are by appointment. I am very happy to meet outside of class time, including before or after class, to discuss course or career related questions. Please contact me by email for us to coordinate a time to meet in-person or to connect on Zoom or by phone.

## **Description**

This course prepares students with the required research skills necessary to successfully conceptualize a research topic and to subsequently develop a proposal to research the topic. Students learn to conduct a literature review, develop a theoretical framework, develop analytical research questions or hypothesis, identify data collection methods, and prepare to analyze and interpret research findings. This course affords students the opportunity to thoroughly explore a specific business topic, as it relates to their area of study and/or professional field and develop a formal research proposal based on that topic.

## **Prerequisites**

1210 – Quantitative Models for Decision Makers

#### **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Develop professional research skills such as identification of a topic, evaluation and proper use of information sources, and selection of appropriate research methodologies.
- Apply a range of qualitative and quantitative research practices
- Formulate a hypothesis or a set of research questions that address a business problem
- Prepare a proposal incorporating appropriate research methods for the Capstone project.
- Apply ethical research protocols in line with policies and procedures involving human subjects (UCAIHS)

#### **Communication Methods**

Be sure to turn on your <u>NYU Brightspace notifications</u> and frequently check the "Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course.

If you have any questions around topics, material, or assignments each week, please do not hesitate to bring them to me, either in the classroom, or you can email me at jonathan.w.williams@nyu.edu. I aim to respond to your emails within 24 hours of receiving them. Students must use their NYU email to communicate or may contact me via NYU Brightspace; both methods guarantee your privacy.



## Structure | Method | Modality

This course is in-person will meet once a week. Brightspace is the learning management system we will use. Students will be required to check Brightspace three times a week for weekly announcements.

This course prepares students with the required research skills necessary to successfully conceptualize a research topic and to subsequently develop a proposal to research the topic. Students learn to conduct a literature review, develop a theoretical framework, develop analytical research questions or hypothesis, identify data collection methods, and prepare to analyze and interpret research findings. This course affords students the opportunity to thoroughly explore a specific business topic, as it relates to their area of study and/or professional field and develop a formal research proposal based on that topic.

## **Expectations**

#### Learning Environment

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

## Participation

You are integral to the learning experience in this class. Be prepared to actively contribute to class activities, group discussions, and work outside of class.

Participation means contributing to the discussion versus simply speaking in class or offering a random comment; it also means actively listening and building on the questions and discussion points of your classmates. As graduate students, you are expected to conduct yourselves in a professional manner and engage and collaborate with your classmates.

## **Assignments and Deadlines**

Assignments are due on the dates listed, with percentages removed for lateness. All assignments must be uploaded to the folders on Brightspace posted under the "Assignments" tab.

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. A missed assignment will result in a grade of a zero for that assignment. Sometimes students are unable to meet due dates. In those rare cases, the following Late Assignments Policy applies:

A penalty of ten percent (10%) per week will be applied to the grade you achieved on the assignment for each week the assignment is submitted after the deadline.

The instructor will grade late submitted assignments no later than a week after you submit the assignment. Contact your instructor to notify him or her of the late submission and to ensure he or she has received the assignment.

The full ten percent (10%) late penalty for each week applies regardless of the day of the week you submit your work.

Assignments will not be accepted after the last day of the term unless an Incomplete Grade Petition and Contract has been completed and approved by the instructor in consultation with the department. Incomplete arrangements are rare and are not a substitute for meeting



assigned deadlines. See the Incomplete Grade Policy.

In the event the student is late to class, it is required for the student to notify the instructor in advance prior to the start of class

#### Course Technology Use

We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes.

#### **IT Service Desk**

(212)-998-3333

24 hours a day, 7 days a week

Email: <u>AskIT@nyu.edu</u>

## **Brightspace Support**

- Log-in to the Brightspace platform or visit the Student Training website.
- Video on how to Navigate the Bright Space Learning Environment

## Feedback and Viewing Grades

I will provide timely meaningful feedback on all your work via our course site in NYU Brightspace. You can access your grades on the course site Gradebook.

#### Attendance

Students are expected to attend all class sessions. Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

If for some reason (excused absence) you will not be in class, you must notify the instructor prior to the scheduled session if you will not be attending and the reason.

Each unexcused absence or being late may result in a student's grade being lowered by a fraction of a grade. A student who has three unexcused absences may earn a Fail grade.

University Calendar Policy on Religious Holidays:

https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-calendar-policy-on-religious-holidays.html

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

Refer to the SPS Policies and Procedures page for additional information about attendance.

#### **Textbooks and Course Materials**

The following materials can be purchased online or through the NYU Bookstore:

American Psychological Association. (2020). Publication Manual of the American Psychological Association (7th Ed.). Washington, D.C.: Author. ISBN 978-1-4338-3216-1

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches (5th Ed.). Thousand Oaks, CA: Sage. ISBN 9781506386706



## Recommended Reading & Materials

- APA Style: <a href="http://www.apastyle.org/manual/">http://www.apastyle.org/manual/</a>
- Purdue OWL: <a href="http://owl.english.purdue.edu/owl/resource/560/01/">http://owl.english.purdue.edu/owl/resource/560/01/</a>
- NYU Collaborative Institutional Training Initiative (CITI) Human Subjects Training Program Tutorial: <a href="https://www.nyu.edu/research/resources-and-support-offices/getting-started-withyourresearch/human-subjects-research/tutorial.html">https://www.nyu.edu/research/resources-and-support-offices/getting-started-withyourresearch/human-subjects-research/tutorial.html</a>

## **Grading | Assessment**

Assignment specifics will be discussed in class, with assignment requirements being posed to Brightspace for your review. All assignments should follow APA 7th edition formatting and be submitted via Brightspace, unless otherwise instructed. Most assignments will also be for inclass discussion and feedback unless instructed otherwise. Assignments are due on the dates listed, with percentages removed for lateness. Most assignments add additional elements to your proposal, which you will develop throughout the course.

The following categories will be used for performance evaluation and grading:

DESCRIPTION	PERCENTAGE
Assignment #0: Active class participation + evidence of reading completion	10%
Assignment #1: Identify and propose a topic for further research	5%
Assignment #2: Revise proposal topic based on class discussion	10%
Assignment #3: Identify 15 research references for your proposal	5%
Assignment #4: Clarify your proposal topic	10%
Assignment #5: UCAIHS CITI Exam Passing (REQUIRED TO PASS COURSE)	5%
Assignment #6: Draft your literature review	10%
Assignment #7: Demonstrate a Reference Management Tool	5%
Assignment #8: Complete your literature review	15%
Assignment #9: Discuss and develop a preliminary methodology	5%
Assignment #10: Final Proposal	15%
Assignment #11: Pecha Kucha (20x20 timed) Presentation	5%
ASSIGNMENTS TOTAL	100%

Students are required to successfully complete the University Committee on Activities Involving Human Subjects (UCAIHS) Collaborative Institutional Training Initiative (CITI) training modules for Human Subjects (this is specifically the Social & Behavioral Research - Basic/Refresher - Basic Course with 11 required modules).

The Final Proposal (Final Project) is the RPM Thesis Proposal. This syllabus follows the order and outline presented in the Thesis Requirements for RPM and RPT Courses (rev. March 2014) document in the Resources folder. The one difference will be an abstract and keywords that are required, before the Table of Contents (TOC), that follows the Research Elevator Speech 5-sentence proposal summary format and are regularly revised with each assignment.



## **NYU SPS Graduate Grading Scale**

			<u> </u>
A	95-100	4.000	<b>Exceptional</b> : Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.
Α-	90-94	3.667	<b>Excellent</b> : Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	Very Good; exceeds course standards: Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	Good; meets course standards: Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
В-	80-82	2.667	Somewhat Satisfactory; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement: Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.
С	73-76	2.000	Unsatisfactory; requires substantial improvement: Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	Unsatisfactory; requires extensive improvement: Demonstrates poor understanding of all learning outcomes and core concepts; requires extensive improvement.
F	Below 70		<b>Fail</b> : Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.

From NYU SPS Policies and Procedures

## **Course Outline**

**Start/End Dates:** 9/01/2022 - 12/08/2022 | Thursdays

**Time:** 6:20 pm - 8:55 pm ET

No Class Date(s): No class date: Thursday, 11/24/22, Thanksgiving Recess

Special Notes: N/A

Sept 1, 2022 - No class session due to instructor absence.

A make-up session will be held on Sept 17, 2022, time TBD.



## 9/8/2022

## Session 1: Ways of Knowing

During Class: This class session will provide an overview of the course and expectations for the term. The remainder of the class session will focus on the question: "how do we know what we know?" We'll look at the epistemology of knowledge and discuss our own orientation to research.

## Before the Next Class:

- Complete Assignment #1: Identify and propose a topic for further research
- Read Creswell Chapters 1 and 3
- Read APA Chapters 1, 2, and 3

#### 9/15/2022

#### Session 2: Developing a Research Inquiry

During Class: This class session focuses on the thesis topic proposal, where we start to choose and narrow a researchable topic. We will discuss library databases and other ways to access scholarly sources from the library.

#### Before the Next Class:

- Read Creswell Chapters 4 and 5
- Read APA Chapter 4

#### 9/17/2022

## **Session 3: Honing a Research Inquiry through Literature**

(Note that this is a make-up session and will be held at a different, mutually agreed on time)

During Class: This class session will further look at literature to support the development of your topic proposal. We will review a peer-reviewed article together and identify best practices from the article. We will further discuss library resources, including ILL.

## Before the Next Class:

- Complete Assignment #2: Revise proposal topic based on class discussion
- Complete Assignment #3: Identify 15 research references for your proposal
- Read Creswell Chapter 2
- Review APA Chapters 8-11

#### 9/22/2022

## **Session 4: Defining the Research's Purpose and Questions**

#### **During Class:**

This class session will cover research questions and hypotheses and will review the literature identified for your proposal.



## Before the Next Class:

- Read Creswell Chapter 6 and 7
- Review APA Chapters 5, 6 and 7

#### 9/29/2022

#### Session 5: Theoretical Orientation to Research

During Class: This class session will discuss theoretical foundations of research.

## Before the Next Class:

• Complete Assignment #4: Clarify your proposal topic

#### 10/6/2022

#### Session 6: Institutional Review Board

During Class: This class session will focus on working with human research subjects and the role of the Institutional Review Board (IRB) in research.

#### Before the Next Class:

Complete Assignment #5: UCAIHS CITI Exam Passing

#### 10/13/2022

#### **Session 7: Literature Review**

During Class: This class session will focus on developing a literature review for your proposal.

## Before the Next Class:

• Complete Assignment #6: Draft your literature review

## 10/20/2022

## Session 8: Peer Writing Workshop I

During Class: This class session will focus on iterative development of your literature review, levering the insight of your peers and your instructor. In this session you will share your own writing and offer feedback on the writing of others.

#### Before the Next Class:

- Assignment #7: Demonstrate a Reference Management Tool
- Read Creswell Chapter 8

#### 10/27/2022

#### **Session 9: Quantitative Methods**



During Class: This class session will discuss quantitative methods applicable to student research interests.

## Before the Next Class:

Read Creswell Chapter 9

#### 11/3/2022

## **Session 10: Qualitative Methods**

During Class: This class session will discuss qualitative methods applicable to student research interests.

## Before the Next Class:

- Read Creswell Chapter 10
- Assignment #8: Complete your literature review

#### 11/10/2022

#### **Session 11: Mixed Methods**

During Class: This class session will discuss quantitative methods applicable to student research interests.

## Before the Next Class:

Assignment #9: Discuss and develop a preliminary methodology

#### 11/17/2022

## Session 12: Establishing Quality and Ethics in Research

During Class: This class session will discuss validity and reliability, threats to validity and reliability, and ethical considerations when utilizing research methods.

#### Before the Next Class:

No assignments are due prior to the next class.

## 11/24/2022

No class session due to Thanksgiving holiday.

#### 12/1/2022

## **Session 13: Peer Writing Workshop II**

During Class: This class session will focus on iterative development of your final proposal, levering the insight of your peers and your instructor. In this session you will share your own writing and offer feedback on the writing of others.



#### Before the Next Class:

- Complete Assignment #10: Final Proposal
- Complete Assignment #11: Pecha Kucha (20x20 timed) Presentation

## 12/8/2022

## **Session 14: Final Presentations of Research Proposals**

During Class: This class session will be the culminating experience of the term, where you will share a Final Presentation to the class, which details your Final Proposal Submission.

#### NOTES:

The syllabus may be modified to better meet the needs of students and to achieve the learning outcomes.

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experts; and thus, recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

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7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.

These services may require you to create an account, but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.