

Computer Science
Course Number: 22:198:670
Course Title: Information Technology Strategy

COURSE DESCRIPTION

Over the last few years Information Technology (IT) teams have evolved and continue evolving to establish IT organizations as business strategic partners, and CIOs and technology leaders are now included in the executive teams and are expected to play a leading role in delivering business value while solving both business and technical problems. In the past companies' executives think about IT as a necessary support function in the same way they think about HR and legal, and managed as cost effectively as possible. Since then, CIOs and IT leaders have been positioning IT as a source of revenue, innovation and a competitive advantage. Companies are also increasing their investments in acquiring and maintaining information on themselves, the markets and on competitors, and they need systems, IT teams and business intelligence to enable a strategic use of the information that makes it a business asset to the organization and an enabler of their business model. Developing and executing an effective Information Technology strategy that enables business strategy is critical for creating business value and gaining competitive advantage. This Course presents a framework and methodology for assessing, developing and implementing an effective IT strategy aligned with business needs and drives the use of technology to gain competitive advantage and drive revenue growth. The course will also address the impact of digital transformation on IT strategy. The course will be a combination of directed readings, lectures, case studies, tests and one group project. The course uses Harvard Business School cases.

COURSE MATERIALS

- Textbook: Required

Corporate Information Strategy and Management: Text and Cases, 8/e. By: Lynda M Applegate, Robert D Austin, Deborah L Soule. ISBN: 0073402931

- Check Canvas (canvas.rutgers.edu) and your official Rutgers email account regularly.

LEARNING GOALS AND OBJECTIVES

- This course is designed to help students develop skills and knowledge in the following area(s):

- Formal learning goals
- Students who complete this course will demonstrate the following:
- The capability to understand and address challenges and opportunities in the management of Information Technology (IT)
 - Insight on value and importance of Information Technology strategy.
 - Capability to formulate an IT strategy
 - Capability to communicate and implement an IT strategy
 - Capability to measure impact and business value of an IT strategy
- Students develop these skills and knowledge through the following course activities and assignments:
- Lectures with active interactions
 - Case studies and class discussions
 - Continuous Online Assessments
 - Group project to develop an IT strategy for a company
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PREREQUISITES

None

ACADEMIC INTEGRITY

I do NOT tolerate cheating. Students are responsible for understanding the RU Academic Integrity Policy (<http://academicintegrity.rutgers.edu/>).

I will strongly enforce this Policy and pursue *all* violations. On all examinations and assignments, students must sign the RU Honor Pledge, which states, “On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment.” I will screen all written assignments through *SafeAssign* or *Turnitin*, plagiarism detection services that compare the work against a large database of past work. Don’t let cheating destroy your hard-earned opportunity to learn. See business.rutgers.edu/ai for more details.

ATTENDANCE AND PREPARATION POLICY

- Expect me to attend all class sessions. I expect the same of you. If I am to be absent, my department chair or I will send you notice via email and Canvas as far in advance as possible. If you are to be absent, report your absence in advance at <https://sims.rutgers.edu/ssra/>. If your absence is due to religious observance, a Rutgers-approved activity, illness, or family emergency/death and you seek makeup work, also send me an email with full details and supporting documentation within a week.
- For weather emergencies, consult the campus home page. If the campus is open, class will be held.
- Expect me to arrive on time for each class session. I expect the same of you. If you are going to be tardy, then email me

- Expect me to remain for the entirety of each class session. I expect the same of you.
 - Expect me to prepare properly for each class session. I expect the same of you. Complete all background reading and assignments. You cannot learn if you are not prepared.
 - Expect me to participate fully in each class session. I expect the same of you. Stay focused and involved. You cannot learn if you are not paying attention. Class attendance and participation is part of your grade.
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CLASSROOM CONDUCT

Use of phones or other electronic devices are not allowed during lectures.

EXAM DATES AND POLICIES

- Midterm is the sum grade of all online tests
 - Final exam is the assigned group project
 - Students are strongly encouraged to work in groups
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GRADING POLICY

Course grades are determined as follows: Evaluation is based on class participation, case studies readiness, tests and a group project:

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| 1. Class participation and case studies - (attendance, contributions to class discussions and case studies readiness) | 20% |
| 2. 6 Online tests given after each two lessons | 40% |
| 3. Group final project - (as a group, develop an IT strategy for a business organization – company selection needs to be approved by me in advance) | 40% |

Late submissions will incur a reduction in the grade and up to 20% for each late day. Students are responsible to take and complete on time all tests and assignments. No make-up tests are permitted.

Your final grade is not subject to negotiation. If you feel I have made an error, submit your written argument to me within one week of receiving your final grade. Clarify the precise error I made and provide all due supporting documentation. If I have made an error, I will gladly correct it. I will adjust grades only if I have made an error. I cannot and will not adjust grades based on consequences, such as hurt pride, lost scholarships, lost tuition reimbursement, lost job opportunities, graduation or dismissals. Do not ask me to do so.

COURSE SCHEDULE

Week #1:

1. Course introduction and outline overview
2. Management of information systems and technology: challenges and opportunities
3. IBM Business case introduction
4. Assignment: Required reading - IBM Business case

Week #2:

1. Strategic management overview
2. Business models
3. IBM business case discussion
4. Assignment: Required reading: Text book pages 63-79

Week #3:

1. Information Technology impact on business models
2. Amazon.com business case introduction
3. Individual projects requirements
4. Assignment: Required reading - Amazon.com business case
5. Recommended - Text book pages 81-95 chapter 3

Week #4:

1. Information Technology impact on organizations
2. Amazon.com business case discussion
3. Assignment: Required reading: text book pages 101-119 Chapter 4
4. Assignment: Group project - Form projects groups and select a company

Week #5:

1. Making the case for Information Technology
2. Five competitive forces that shape strategy
3. Canyon Ranch business case introduction
4. Assignment: Required reading – Canyon Ranch business case
5. Assignment: develop a one page summary introduction of your group project

Week #6:

1. Framework for developing Information Technology strategy: Assessment and situation analysis
2. Canyon Ranch Business case discussion
3. Example 1: IT strategy
4. One page group projects summary due today
5. Assignment: Complete individual assignment

Week #7:

1. Framework for developing Information Technology strategy:
 - a. Objectives and business priorities
 - b. IT strategy formulation
2. Example 2: IT strategy
3. Assignment: Required reading - text book pages 403-422
4. Recommended reading: IT strategy examples published on the BB

Week #8:

1. IT strategic plans and governance
2. Royal DSM N.V. business case introduction
3. Assignment: Required reading – Royal DSM N.V. business case
4. TBD CIO guest speaker, or review of an actual and implemented IT Strategy

Week #9:

1. Information Technology strategy alignment and leadership
2. Royal DSM N.V. business case discussion
3. Assignment: Required reading - text book pages 423-435

Week #10:

1. Communicating the Information Technology strategy
2. Volkswagen of America business case introduction
3. Assignment: Required reading – Volkswagen of America business case

Week #11:

1. Assessing risks and measuring impact and business value
2. Implementing the Information Technology strategy
3. Volkswagen of America business case discussion
4. Assignment: work on group projects

Week #12:

1. Revisit IT strategic impact on business model
2. Example 4: IEEE IT strategy
3. Assignment: Finalize group projects presentations and reports

Week #13:

1. Digital transformation impact on IT strategy
2. Group projects questions and answers

Week #14:

3. Final group reports are due one day before final presentations
4. Group projects presentations

SUPPORT SERVICES

If you need accommodation for a *disability*, obtain a Letter of Accommodation from the Office of Disability Services. The Office of Disability Services at Rutgers, The State University of New Jersey, provides student-centered and student-inclusive programming in compliance with the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments of 2008, Section 504 of the Rehabilitation Act of 1973, Section 508 of the Rehabilitation Act of 1998, and the New Jersey Law Against Discrimination. More information can be found at ods.rutgers.edu.

[Rutgers University-New Brunswick ODS phone (848)445-6800 or email dsoffice@echo.rutgers.edu]

[Rutgers University-Newark ODS phone (973)353-5375 or email ods@newark.rutgers.edu]

If you are *pregnant*, the Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy.

[Rutgers University-New Brunswick Title IX Coordinator phone (848)932-8200 or email jackie.moran@rutgers.edu]

[Rutgers University-Newark Office of Title IX and ADA Compliance phone (973)353-1906 or email TitleIX@newark.rutgers.edu]

If you seek *religious accommodations*, the Office of the Dean of Students is available to verify absences for religious observance, as needed.

[Rutgers University-New Brunswick Dean of Students phone (848)932-2300 or email deanofstudents@echo.rutgers.edu]

[Rutgers University-Newark Dean of Students phone (973)353-5063 or email DeanofStudents@newark.rutgers.edu]

If you have experienced any form of *gender or sex-based discrimination or harassment*, including sexual assault, sexual harassment, relationship violence, or stalking, the Office for Violence Prevention and Victim Assistance provides help and support. More information can be found at <http://vpva.rutgers.edu/>.

[Rutgers University-New Brunswick incident report link: <http://studentconduct.rutgers.edu/concern/>. You may contact the Office for Violence Prevention and Victim Assistance at (848)932-1181]

[Rutgers University-Newark incident report link: https://cm.maxient.com/reportingform.php?RutgersUniv&layout_id=7 . You may also contact the Office of Title IX and ADA Compliance at (973)353-1906 or email at TitleIX@newark.rutgers.edu. If you wish to speak with a staff member who is confidential and does **not** have a reporting responsibility, you may

contact the Office for Violence Prevention and Victim Assistance at (973)353-1918 or email run.vpva@rutgers.edu]

If students who have experienced a temporary condition or injury that is adversely affecting their ability to fully participate, you should submit a request via <https://temporaryconditions.rutgers.edu>.

If you are a military *veteran* or are on active military duty, you can obtain support through the Office of Veteran and Military Programs and Services. <http://veterans.rutgers.edu/>

If you are in need of *mental health* services, please use our readily available services.

[Rutgers University-Newark Counseling Center: <http://counseling.newark.rutgers.edu/>]

[Rutgers Counseling and Psychological Services–New Brunswick: <http://rhscaps.rutgers.edu/>]

If you are in need of *physical health* services, please use our readily available services.

[Rutgers Health Services – Newark: <http://health.newark.rutgers.edu/>]

[Rutgers Health Services – New Brunswick: <http://health.rutgers.edu/>]

If you are in need of *legal* services, please use our readily available services: <http://rusls.rutgers.edu/>

Students experiencing difficulty in courses due to *English as a second language (ESL)* should contact the Program in American Language Studies for supports.

[Rutgers–Newark: PALS@newark.rutgers.edu]

[Rutgers–New Brunswick: eslpals@english.rutgers.edu]

If you are in need of additional *academic assistance*, please use our readily available services.

[Rutgers University-Newark Learning Center: <http://www.ncas.rutgers.edu/rlc>

[Rutgers University-Newark Writing Center: <http://www.ncas.rutgers.edu/writingcenter>]

[Rutgers University-New Brunswick Learning Center: <https://rlc.rutgers.edu/>]

[Optional items that many faculty include:

- Students must sign, date, and return a statement declaring that they understand the RU Academic Integrity Policy.

- Students must sign, date, and return a statement declaring that they understand this syllabus.]