COURSE DESCRIPTION

The course consists of class meetings and team meetings. The class meets on () from (). The first half of the class (45 to 90 minutes) includes lectures from the course instructors. There will be a series of guest speakers that will periodically present during class time. The remainder of class time (typically second half of most classes) consists of team meetings, which include the students and the mentors assigned to support their team. In general, we expect that it will be necessary for the team to meet at least once per week in addition to the meeting time provided on (), and in addition to the time that team members devote to individual class and project tasks. These additional team meeting times are to be arranged by the teams and mentors. The mentors will use their own discretion whether to attend or participate in any particular of these additional meetings. The teams will discuss and report their progress and activities to their mentors each week.

COURSE MATERIALS

Textbook
There is no textbook required for the course. Course materials will be made available in class. Course materials include.

- Syllabus and Schedule
- Worksheets
- Readings

Additionally, the lecture materials for the week will be periodically posted on the CTEC website (Canvas).

Note on readings: In general, the amount of reading required for this course is not burdensome. The specific readings to be assigned and due dates will be adjusted to accommodate emerging course, team and project needs.

LEARNING GOALS AND OBJECTIVES

The course is intended to be useful to scientists and engineers who may follow career paths that evolve from pure R&D toward more direct commercial activities, and for business students and professionals who will be working in innovation-intensive industries. It is useful for anyone wishing to engage in for-profit entrepreneurship.
Our primary objective is to teach students how to bring the ideas developed in either “Technology, Entrepreneurship & Commercialization” (TEC), also known as CTEC-1 or Discovery to Business Model, and/or “Opportunity Identification and Evaluation” to fruition through creation of a new business. More generally, students will:

- Learn to gather and structure information into a business plan and investor pitch deck
- Learn techniques and applications of customer discovery for tech-product-market fit
- Learn to develop product ideas and commercialization plans
- Learn to develop a sensible commercialization strategy for a new venture
- Learn to implement business ideas in the real world
- Learn how to present business, product, financial, and operational plans to those who are potentially interested in supporting their efforts.

As the second course in the CTEC sequence, this course uses the information gathering, evaluation and decision processes undertaken in CTEC-1 or Opportunity Identification and Evaluation to prepare business plans and investor pitch decks for new ventures. Throughout this course we maintain a consistent pedagogical focus: the best way to learn entrepreneurship is to engage in entrepreneurship. The overarching commitment of the course is therefore to identify and exploit real entrepreneurial opportunities, primarily through the mechanism of creating new ventures. We encourage subsequent student participation in start-ups in a manner that is appropriate for both the student and the business.

STUDENT RESPONSIBILITIES

Students participate in the course as an educational exercise. As a participant in the course, however, you agree to certain responsibilities to the university, CTEC and those who provide us with technologies and confidential information used in the course. All information, reports and analyses pertaining to the projects undertaken in the course, if based on sources of intellectual property or technologies from the CTEC portfolio, become the property of CTEC and must be kept confidential and may not be used by you or other students or transmitted for use by students or anyone else for any reason without prior written consent from CTEC.

In the case of new-to-the-world technology-based IP, we make every effort to ensure that all technologies admitted to the course are available for commercialization; however, we do not take ownership of these technologies. In exchange for access to the technologies, CTEC agrees to share information developed during the class with the owners of the technology, on the understanding that the intent of all involved is to start a new company with CTEC students embedded in the startup. Students earn the right to participate through their efforts and demonstrated knowledge and skills gained over the two-course sequence.

TIME COMMITMENT

Each student is required to meet each () from () to () and with the team one other time per week. Students are also required to meet with other people necessary to complete the team’s caseload. Finally, team members have individual work assigned to them by the team during the week. Assignments and meeting attendance will be reported to team mentors each week.
Role of the Students

As a student your role will be to develop high quality commercial evaluations of opportunities and business strategies in a professional manner. In the class you will learn the basic tools of technology commercialization and new business development. Under the direction of Team Mentors, you will learn how to apply the tools to actual cases. Students, like professionals, have multiple responsibilities. You have responsibilities to your fellow team members, and to the Class. You will be expected to give your best effort to every project you are assigned. You are expected to carry your fair share of the work in the team. You are also expected to conduct yourself with integrity and professionalism.

Relationship with Technologist

Once the projects have been determined for the team, the students will be responsible for the relationship between Team and affiliated Technologist, if one exists. You will be responsible for establishing a working relationship with the technologist and any other external parties deemed important to your project. We strongly recommend that each team assign one member to act as liaison for each external party to better manage the flow of communication. The Mentors monitor the communication with the technologist and help them form a working relationship.

Role of the Mentors

The role of the Mentors is to provide overall coaching to the team, evaluate the team and individual contributions, monitor the team’s interface with external parties and assist in the transition of the project to the next logical phase of development.

Relationship with Team

Mentors will be in charge of monitoring their teams. They will make sure weekly assignments are made and evaluate performance. Mentors will check the Deliverables folder on a weekly basis,
ensuring that worksheets are completed, progress is made, and contacts are logged. The students look to the Mentors for guidance on how to conduct the technical part of the project and more importantly as an example of how to manage people in this most difficult managerial challenge of new venture formation. Mentors should monitor the team’s skills at conflict resolution. Effective commercialization requires a certain amount of creative discord within the team. The Mentors need to both encourage and mitigate this part of the process.

Specific responsibilities of the mentors for the semester:

- Act as coach and mentor
- Check assignments
- Monitor and assist team in making outside calls and contacts
- Keep up with team activities by being on the email loop
- Provide an early warning to the instructors of team problems
- Provide input for grading the team and individuals with a focus on team decision making; individual commitment and contributions; individual performance measured against team role.

Team Roles

Teams need to assign specific roles and responsibilities. There should be a Team Leader and a Secretary. Other Team roles can be assigned as necessary. Roles should be created in response to the nature of the projects and the skills of the team members.

Executive Team Meeting Agenda

Most of the actual management of the team should take place in the Executive Team Meeting. This is the regular evening meeting between the mentor and the team. In this meeting the Mentors should ensure an agenda is followed to make assignments, and to follow-up on assignments. The Mentors are responsible for evaluating individual contributions.

Making assignments
Rather than micromanaging each activity, the mentors should encourage the team to organize the project and assign tasks. The Mentor’s responsibility should be to ensure the project work is being assigned in an orderly and fair manner.

Following up on assignments
Most teams struggle with completing assignments. Experience shows that students have difficulty policing other students. Therefore, the Mentors will pay particular attention to the timely completion of assigned tasks.

Tracking Student contributions
A significant percent of the grade for each student depends on his or her individual level of contribution. This requires the Mentors to make individual contribution assessments. This assessment is done in the Executive Team Meeting by simply noting who is contributing to the discussion, completing assignments and who is not. The Mentors also note the magnitude of the assignments and how well they were done.

Evaluation
Mentors are responsible for evaluating their teams. Individual Contributions count for a significant portion of the student grade, and this depends on the quantity and quality of completed assignments. Students will often engage in “extra role” behavior that should be part of the assessment. Extra role behavior includes both negative and positive actions and attitudes that affect the Team’s performance.

Project performance makes up a large percentage of the grade. All students on the team receive the same Project grade. The Deliverables folder is the primary source of evaluation for the project. All the team’s activities and deliverables, including presentations, reports, Technologist communications, contact logs, worksheets, and reference materials are kept in this folder.

Decision Making
When considering whether or not to continue working on a project, a formal decision meeting must be held. This helps the team arrive at a decision in a systematic and disciplined manner.

Communicating with the Technologist
Students should seek effective communication with any affiliated third party (technologist, business advisor, service provider, etc.). In any case where a technologist is involved, we hope they will become an active part of the team. Nevertheless, they should receive a letter from the Team at the beginning of the project welcoming them into the class, set expectations, and provide information about how to work with the team. Finally, the Team should ensure a final letter and report is sent to the technologist, subject to prior review and approval by the Mentors and Faculty. This final communication with the technologist is extremely important. It must be designed to ensure closure in a positive manner, with the technologist satisfied with the contributions made by the team.

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**ACADEMIC INTEGRITY**

*I do NOT tolerate cheating.* Students are responsible for understanding the RU Academic Integrity Policy ([http://academicintegrity.rutgers.edu/](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](http://business.rutgers.edu/ai) for more details.

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**ATTENDANCE AND PREPARATION POLICY**

Attendance at all regularly scheduled class meetings is mandatory. Team meetings with your team are mandatory. Meetings with other people to gather information about your project will be assigned in team meetings and are mandatory. Your participation in gathering data and preparing reports is mandatory. Your team mentors and team leader should be contacted in advance if, for any reason, you cannot attend a meeting.

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**CLASS IMPACT**

Here are some of the career paths for which the program has helped prepare students:

<table>
<thead>
<tr>
<th>High-Tech Start Up Companies</th>
<th>Established Corporations &amp; Organizations</th>
<th>Angel Investing, Venture Capital, Private Equity Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Founders / Executives</td>
<td>* Corporate Venturing</td>
<td>* Partners</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Associates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Analysts</td>
</tr>
</tbody>
</table>
ASSIGNMENTS

Each team will be responsible for completing all assigned worksheets and the following major deliverables:
- Voice of Customer (VOC) Report & Mini-Presentation
- Contact Log
- Business Plan
- Investor Pitch Deck
- Investor Presentation

All team deliverables will be included in their ‘Deliverables’ folder. These are due on specified weeks throughout the semester (see Course Schedule). The mentors will monitor and encourage team progress on each deliverable.

CONTACT INFORMATION AND OFFICE HOURS

If you have questions or concerns or are interested in talking about the course or your goals, it is recommended that you deal with them as follows:
- Simple procedural questions, i.e., regarding deliverables, dates, etc. – ask at the beginning or end of class or connect with the TA or Faculty.
- Academic questions regarding course content or anything else – ask in class, email the set of instructors, or ask the team mentor.

EVALUATION CRITERIA

There will be three areas considered during evaluation:
Team Deliverables. Each team will turn in the CTEC assignments, including each section mentioned in Team Deliverables, as well as the worksheets and team management reports. The team’s mentors monitor the Deliverables folder on a weekly basis, which must be up to date at the weekly team meeting for this purpose. The Deliverables folder is evaluated by the team’s Mentors and instructors at the end of the semester and is a major source of the team grade. The Workbook is evaluated on technical correctness, completeness, as well as the amount, and quality of work. Particular attention is paid to the decision-making of the team.

Individual Contributions will be evaluated based on: (the evaluator is given in parentheses)
- attendance at class and team meetings (TA, Instructors and Mentors).
- timely completion of assigned work (Mentors).
- contribution to the team meetings (Mentors) and class discussions (Instructors).
- quality of assigned work (Instructors and Mentors).
- performance measured against specific team role(s) (Instructors and Mentors).

Peer Evaluations. One or more peer evaluation forms will be provided to every team member. Each team member will use the forms to provide assessments of their own and their teammates’ contributions.

PROFESSIONAL ETHICS

Any breach of professional ethics will result in dismissal from the class, an automatically failing grade in the course and a report to the university for further disciplinary action. A breach of professional ethics includes violating the conditions of course enrollment or academic dishonesty.

It is unethical to put your name on work for which you do not contribute. If for any reason you are only able to make minimal contributions to your team it is ethical and professional to report your actual level of contribution. You will have the opportunity to report your level of contribution at the end of the semester.

GRADING POLICY

There will be a total of 100 points available, distributed as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC Results (Report &amp; Mini-Presentation)</td>
<td>10</td>
</tr>
<tr>
<td>Contact Log</td>
<td>10</td>
</tr>
<tr>
<td>Business Plan</td>
<td></td>
</tr>
</tbody>
</table>
Pitch Deck 15

Midterm Investor Presentation 15

Final Investor Presentation 05

Individual Contributions / Engagement with Mentors & Faculty 15

Peer Evaluations (5 at midterm and 5 at final) 20

TOTAL 10

100 points

Grades will be assigned as follows:

- A > 93; 93 ≥ A- > 90;
- 90 ≥ B+ > 86; 86 ≥ B > 83; 83 ≥ B- > 80;
- 80 ≥ C+ > 76; 76 ≥ C > 73; 73 ≥ C- > 70;
- 70 ≥ D+ > 66; 66 ≥ D > 63; 63 ≥ D- > 60;
- 60 ≥ F

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COURSE SCHEDULE

WS = Worksheet

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>()</td>
<td>Intro to BML (CTEC-2)</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VOC (Voice of the Customer)</td>
<td></td>
</tr>
</tbody>
</table>
Teams

2  ()  Interviewing
   VOC Plan (Draft)
   Compelling Business Case
   Business Plan
   Opportunity

3  ()  Commercialization Strategy
      Product Descriptions
      Technology Descriptions
      Elevator Pitch

4  ()  Core & Complementary Assets & Strategies
      CTEC Strategy Map

5  ()  Building Financials
      Revenue Models
      Entry & Expansion

6  ()  Marketing/Sales
      Operations

7  ()  VOC Presentations (Teams)
      Financial Strategy – Fund Raising
      Appendix
      Strategy / Technology Status

   - Letter of Intent
   - Core Asset Worksheet

   - Revenue Model Worksheet
   - Entry & Expansion WS

   - VOC Initial Results (Graded)
   - Presentations
   - Peer Evaluations due: () @ ()
### Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>()</td>
<td>NO CLASS</td>
<td></td>
</tr>
</tbody>
</table>
| 10   | ()   | Presentations (Teams)                      | - Presentations: Investor Pitch (Midterm)  
|      |      |                                            | - *1st Draft Business Plan*          |
| 11   | ()   | Human Capital: Co-founders, Employees, Consultants |                                      |
| 12   | ()   | Advisory Boards                            |                                      |
| 13   | ()   | Presentations (Teams)                      |                                      |
| 14   | ()   | Scale; Entrepreneurial Resources           |                                      |
| 15   | ()   | Presentations (Teams)                      | - Presentation: Investor Pitch (Final)  
|      |      |                                            | - All Deliverables Due               |
SUPPORT SERVICES


[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/](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.]