



CUMMING SCHOOL OF MEDICINE
GRADUATE COURSE OUTLINE

COURSE TITLE: Business Case Studies			
Course Name and Number	MDGE 608		
Pre/Co-Requisites	All students must be registered in the MBT graduate program		
Faculty	Cumming School of Medicine, Graduate Science Education		
Instructor Name(s)	Dr. Jan Braun (Coordinator) Sabiha Zaman (Instructor)	Email	snzaman@ucalgary.ca
Office Location	HMRB 21B	Office Hours	By Appointment
Instructor Email Policy	All assignments to be emailed to snzaman@ucalgary.ca. Will respond to @ucalgary emails within 24 hours on weekdays		
Telephone No.	403-210-9342		
TA Name	N/A	Email	
Class Term, Days	Winter Term 2020, Mondays and Wednesdays		
Class Times	March 15, 2020: 1 to 4 PM, March 17, 2020: 1 to 4 PM March 22, 2020: 1 to 4 PM March 24, 2020: 1 to 4 PM		
Class Location	Online on Zoom, Synchronous		

For online courses:

This course will take place **online** via Desire2Learn (D2L) and Zoom. To best succeed in the course, students are encouraged to participate in the asynchronous learning tasks using the D2L learning environment and synchronous Zoom sessions. When unable to participate live due to the time difference or unforeseen circumstances, inform the instructor in advance and propose and implement propose an alternative participation activity. There will be 4 synchronous Zoom sessions throughout the term.

COURSE INFORMATION/DESCRIPTION OF THE COURSE

This course is a required course for students enrolled in the Master in Biomedical Technology (MBT) graduate program. The students will evaluate several biotech companies at different stages of development and will be able to provide an objective report to potential investors. The comprehensive analysis will include examining the scientific and corporate focus of the business. The students will assess the strategic initiatives, the strength of the management team, financial status, intellectual property portfolio, strategic partnerships, regulatory path, market analysis, research and development strategy etc. The students should be able to integrate their findings and provide their recommendations.

LEARNING RESOURCES/REQUIRED READING

- March-Chordà, I, and Yagüe-Perales, R.M. “Biopharma Business Models in Canada.” *Drug Discovery Today*, vol. 16, no. 15, 2011, pp. 654–658.
- Horvath, Balint, et al. “INVESTIGATING THE CURRENT BUSINESS MODEL INNOVATION TRENDS IN THE BIOTECHNOLOGY INDUSTRY.” *Journal of Business Economics and Management*, vol. 20, no. 1, 2019, pp. 63–85.

COURSE OBJECTIVES/LEARNING OUTCOMES

On successful completion of this course the students should be able to:

1. Understand the strategic planning and priorities at an executive level of various biotechnology companies.
2. Be able to conduct a comprehensive analysis of biotechnology companies.
3. Conduct a comparative review and be able to provide a reasonable recommendation to executives of a biotechnology company and potential investors.
4. Demonstrate the ability to collect, research and integrate information and present findings in both oral and written forms, individually as well as in teams.

Communication:

Please discuss how you will communicate with your students (including how you provide link to online classes) Desire2Learn (D2L) will be used extensively for communication with Students. A link to the zoom class will be provided on D2L. It is the student’s responsibility to ensure that they receive all posted communications and documents and that they receive e-mails send by instructors of fellow students through D2L. Only your



@ucalgary.ca e-mail address maybe linked to D2L. Please ensure that you are regularly checking your @ucalgary.ca account

Learning Technology Requirements

In order to successfully engage in learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security and malware updates;
- A current and updated web browser;
- Webcam (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Broadband internet connection

Most current laptops will have a built-in webcam, speaker and microphone.

Please see the following for a detailed explanation of the minimal required technology for online learning <https://elearn.ucalgary.ca/technology-requirements-for-students/>

A laptop, desktop, tablet or mobile device is required for D2L access. If you need help accessing or using D2L, please visit the Desire2Learn resource page for students: <http://elearn.ucalgary.ca/d2l-student/>.

The University of Calgary Cumming School of Medicine would like to acknowledge the traditional territories of the people of the Treaty 7 region in Southern Alberta, which includes the Blackfoot Confederacy (comprising the Siksika, Piikani, and Kainai First Nations), as well as the Tsuut'ina First Nation, and the Stoney Nakoda (including the Chiniki, Bearspaw, and Wesley First Nations). The City of Calgary is also home to Métis Nation of Alberta, Region III.

CUT POINTS FOR GRADES			
This course adheres to the grading system outlined in the University of Calgary, Faculty of Graduate Studies Calendar. Grades of A+ and A are not distinguished in the calculation of GPAs. Percentage/letter grade conversion used for this course is as follows			
Grade	Grade Point Value	Percentage Conversion	Graduate Description
A+	4.00	95-100	Outstanding
A	4.00	85-94	Excellent – superior performance showing comprehensive understanding of the subject matter
A-	3.70	80-84	Very Good Performance

B+	3.30	75-79	Good Performance
B	3.00	70-74	Satisfactory Performance
B-	2.70	65-69	Minimum Pass for Students in the Faculty of Graduate Studies
C+	2.30	55-64	All grades below 'B-' are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements
C	2.00	50-54	

Assessment Components: The University policy on grading related matters is outlined in the 2020-2021 Calendar .			
Assessment Methods	Description	Weight %	Due Date and Time
Strategic Recommendation Report (Individual)	A strategic recommendation to the executive team of one of the companies analyzed in case studies. Includes SWOT analysis.	20%	Email snzaman@ucalgary.ca By April 6, 2021 by 11 PM
Oral Presentation (Group)	Oral Presentation on the strategic review Of one publicly traded Canadian company selected. The presentation will be judged for presentation style, completeness and accuracy plus response to questions from the audience.	30%	On Zoom during class time: March 24, 2021
Written Report (Group)	Written report on the strategic review of the company selected. Include Business Canvas Model analysis. Details below.	30%	Email snzaman@ucalgary.ca By April 12, 2021 by 11 PM
In Class assignments (Group and Individual)	<ol style="list-style-type: none"> 1. Team Charter (10%) – Group 2. Investor’s Checklist (10%) - Individual 	20%	March 15 (in class) March 24 Email snzaman@ucalgary.ca by 11 PM

ASSESSMENT AND EVALUATION INFORMATION

ATTENDANCE AND PARTICIPATION EXPECTATIONS:

Students are expected to attend all lectures. Active participation is expected and will be encouraged. Class participation will be assessed on engaging discussions in class and completing activities such as Team charter, Investor's checklist and other in-class activities.

GUIDELINES FOR SUBMITTING ASSIGNMENTS:

Individual Assignment (20%)

Consider yourself as a consultant hired by the executive team of the biotechnology companies analyzed in class. Select one company and provide your recommendations in a form of a report to the executive team. Please identify and provide rationale for your recommendation(s) at a high level in terms of strategic planning/initiative/direction for the company.

Maximum length of report is 2 pages (single space, Font: Arial Size: 12, excluding references, figures).

Please save file as:

Strategic Recommendation_Company_Student Name

Email snzaman@ucalgary.ca

Student Team Assignments (30% oral report + 30% written report)

The teams will select one company from the list below for the oral presentation and the written review. Teams should get their companies approved by March 17th. The selection is first-come first-served, and no two teams can select the same company. Each team will be jointly responsible for their oral and written reports, and each team member will receive the same score.

Student teams will conduct their own strategic reviews of selected biotech/pharma corporation and

Maximum length of report is 10 pages (single space, Font: Arial Size: 12, excluding references, figures).

Please save file as:

Group Report_Company Name (for report)

Group PPT_Company Name (for slides)

Email snzaman@ucalgary.ca

Please include all group member name on the title page

The review should include a survey of corporate history, scientific and technological foundations, intellectual property portfolio, product development strategy, market evaluation, financial analysis and prospects. Teams should review the following companies and select one for detailed strategic analysis:

1. ProMIS Neurosciences
2. Arbutus BioPharma
3. Achieve Life Sciences
4. Kintara Therapeutics
5. Zymeworks
6. Immunovaccine
7. Microbix Biosystems
8. Bellus Health
9. Aurinia Pharmaceuticals
10. Aptose Biosciences
11. Trillium Therapeutics
12. Xenon Pharma
13. Edesa Biotech
14. Nuvo Pharmaceuticals
15. Helix BioPharma
16. Cipher Pharmaceuticals
17. Spectral Medical
18. Medicenna Therapeutics
19. Publicly traded Canadian Biotech

In preparing your oral and written reports the details will vary for each company and team. All these companies are publicly traded, and thus there tends to be a lot of information available for your analysis. Begin with the corporate website and consider news reports, evidence of patents sought and issued, research publications associated with the firm, stock profiles, analysis of target markets and disease indicators, etc. Your analysis should include all the following points:

a) Corporate focus

What is the business sector in which the company operates; what is the technology or disease focus; who are the customers/consumers; what is the product(s); how mature is the product pipeline?

b) Management

Who are the senior executives of the firm and what experience do they bring; is a strong governance structure in place; who are members of the strategic/scientific advisory groups?

c) Partnerships

What is the status of essential corporate partnerships; is core technology developed in-house or licensed?

d) Market

What is the competitive position for the product of the company; who are the major competitors; how strong is the IP status and innovation on which the corporate strategy is based ; are spin-offs possible or under



development; is a communication/marketing plan in place with identified local, national or international customers; what obstacles might exist (e.g., technological, clinical trials, manufacturing, regulatory, pricing, etc.) before product gets to market?

e) Valuation

Who are major investors or fund sources, if identified; what is the current stock price and market cap, how has it evolved over the past few years, and how does this correlate with achieving or failing corporate milestones; from corporate financial reports, how strong is the financial position; does a revenue stream already exist for early stage products or services?

f) Conclusions

How well-defined and unique is the corporate focus; how strong is the company in its corporate structure and leadership; how dependent is the company on the success of external partnerships or technologies; how large and competitive is the target market; how strong is the financial status of the company and its projected well-being over the next few years.

Investor’s Checklist (10%)

If you were a mid-level investor with 10M available, would you invest in the companies analyzed in this class, expectations of return over what timeframe; do you detect troubling signs of danger or instability; what advise would you give the firm?

Please save file as

Investor Checklist_Student Name

email to snzaman@ucalgary.ca

FINAL EXAMINATIONS:

There is no final exam for MDGE 608

EXPECTATIONS FOR WRITING:

Students are expected to follow guidelines as outlined by FGS.

LATE AND/OR MISSING ASSIGNMENTS:

Late assignments will only be accepted with prior agreement with instructor.

Is a passing grade on a particular component essential to pass the course as a whole?

CLASS SCHEDULE			
Course Schedule Date	Topic, Activities & Readings	Instructor	Assignments/Due Dates & Times

March 15 (Mon)	Introduction to Course Team formation and Team Charter Overview of expectation Case Study 1 Class discussion and analysis	Sabiha Zaman & Guest Lecturer	Team Charter – in class
March 17 (Wed)	SWOT Analysis Case Study 2 Class discussion and analysis	Sabiha Zaman & Guest Lecturer	Company approval deadline by 4 PM
March 22 (Mon)	Business Model Canvas Case study 3 Class discussion and analysis	Sabiha Zaman & Guest Lecturer	
March 24 (Wed)	Student Team Presentations Class discussion and Analysis Investor’s Checklist	Sabiha Zaman & Guest Judges	Student Presentation – on Zoom, synchronous Investor’s Checklist – email snzaman@ucalgary.ca by 11 PM
April 6	-	-	Strategic Recommendation (Individual) – email snzaman@ucalgary.ca by 11 PM
April 12			Written Report (Group) – email snzaman@ucalgary.ca by 11 PM

Guidelines for Zoom Sessions

Zoom is a video conferencing program that will allow us to meet at specific times for a ‘live’ video conference, so that we can have the opportunity to meet each other virtually and discuss relevant course topics as a learning community.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor’s permission.

The use of video conferencing programs relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith, and respect (as the Code of Conduct). When entering Zoom or other video conferencing sessions, you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behaviour in these sessions may affect others. Participants



are required to use names officially associated with their UCID (legal or preferred names listed in the Student Centre) when engaging in these activities. Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies. If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your zoom sessions visit: <https://elearn.ucalgary.ca/guidelines-for-zoom/>.

If you are unable to attend a Zoom session, please contact your instructor to arrange an alternative activity (where available). Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions. Students will be advised by their instructor when they are expected to turn on their webcam (such as for group work, presentations, etc.).

The instructor may record online Zoom class sessions for the purposes of supporting student learning in this class – such as making the recording available for review of the session or for students who miss a session. Students will be advised before the instructor initiates a recording of a Zoom session. These recordings will be used to support student learning only.

Conduct During Lectures

The classroom should be respected as a safe place to share ideas without judgement - a community in which we can all learn from one another. Students are expected to frame their comments and questions to lecturers in respectful and appropriate language, always maintaining sensitivity towards the topic. Students, employees, and academic staff are also expected to demonstrate behaviour in class that promotes and maintains a positive and productive learning environment.

As members of the University community, students, employees and academic staff are expected to demonstrate conduct that is consistent with the University of Calgary Calendar, the Code of Conduct and Non-Academic Misconduct policy and procedures, which can be found at <https://www.ucalgary.ca/policies/forms/title>.

Equity, Diversity and Inclusion

The Cumming School of Medicine recognizes that equity, diversity, and inclusion benefits and strengthens all communities, including the medical community and those served by it. We aim to actively engage all learners, particularly those from equity seeking groups including women, Indigenous peoples, visible/racialized minorities, persons with disabilities, and LGBTQ+. While our faculty continues to learn about more equitable, diverse, and inclusive approaches to education, we welcome and appreciate suggestions to help us ensure that all learners are well served by our courses.

To help cultivate learning environments that support diverse and inclusive perspectives and lived experiences, learners are invited to let instructors know if:

- they have names and/or pronouns they would prefer to use that differ from those that appear on official records
- scheduled class meetings conflict with religious events so that alternative arrangements can be made



If they are not already, learners are also encouraged to become familiar with the various opportunities for diverse engagement, learning, and support on campus, including, but not limited to the following resources:

The Office of Equity, Diversity and Inclusion

<https://www.ucalgary.ca/equity-diversity-inclusion>

The Q Centre

<https://www.su.ucalgary.ca/programs-services/student-services/the-q-centre/>

The Writing Symbols Lodge

<https://www.ucalgary.ca/student-services/writing-symbols/home>

INTERNET AND ELECTRONIC COMMUNICATION DEVICE INFORMATION

Cell phones must be turned off in class unless otherwise arranged with the instructor.

The use of laptop and mobile devices is acceptable when used in a manner appropriate to the course and classroom activities. Students are to refrain from accessing websites that may be distracting for fellow learners (e.g. personal emails, Facebook, YouTube). Students are responsible for being aware of the University's Internet and email use policy, which can be found at

<https://www.ucalgary.ca/policies/files/policies/acceptable-use-of-electronic-resources-and-information-policy.pdf>

MEDIA AND RECORDING IN LEARNING ENVIRONMENTS

Media recording for lesson capture

Please refer to the following statement on media recording of students: https://elearn.ucalgary.ca/wp-content/uploads/2020/05/Media-Recording-in-Learning-Environments-OSP_FINAL.pdf

The instructor may use media recordings to capture the delivery of a lecture. These recordings are intended to be used for lecture capture only and will not be used for any other purpose. Although the recording device will be fixed on the Instructor, in the event that incidental student participation is recorded, the instructor will ensure that any identifiable content (video or audio) is masked, or will seek consent to include the identifiable student content to making the content available on University approved platforms.

Media recording for assessment of student learning

The instructor may use media recordings as part of the assessment of students. This may include but is not limited to classroom discussions, presentations, clinical practice, or skills testing that occur during the course. These recordings will be used for student assessment purposes only and will not be shared or used for any other purpose.

Media recording for self-assessment of teaching practices



The instructor may use media recordings as a tool for self-assessment of their teaching practices. Although the recording device will be fixed on the instructor, it is possible that student participation in the course may be inadvertently captured. These recordings will be used for instructor self-assessment only and will not be used for any other purpose.

Student Recording of Lectures

Audio or video/visual recording of lectures is prohibited except where explicit permission has been received from the instructor.

UNIVERSITY OF CALGARY POLICIES AND SUPPORTS

ACADEMIC ACCOMMODATIONS

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf

IMPORTANT INFORMATION

Any research in which students are invited to participate will be explained in class and approved by the appropriate University Research Ethics Board

INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing

COPYRIGHT LEGISLATION

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright-policy.pdf and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy

ACADEMIC INTEGRITY

The Cumming School of Medicine expects intellectual honesty from its students. Course participants should be aware of University policies relating to Principles of Conduct, Plagiarism and Academic Integrity. These are



found in the printed Faculty of Graduate Studies Calendar, or online under Academic Regulations in the Faculty of Graduate Studies Calendar, available at [Faculty of Graduate Studies Academic Regulations](#)

ACADEMIC MISCONDUCT

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at www.ucalgary.ca/pubs/calendar/current/k.html

EMERGENCY EVACUATION AND ASSEMBLY POINTS

Assembly points for emergencies have been identified across campus. The primary assembly points for South Campus (Health Science Centre (HSC); Health & Research Innovation Centre (HRIC); Heritage Medical Research Building (HMRB) and Teaching, Research and Wellness (TRW)) are:

- HSC and HMRB: HRIC Atrium (alternate assembly point is Parking Lot 6)
- HRIC: HMRB Atrium (alternate assembly point is Parking Lot 6)
- TRW: McCaig Tower (alternate assembly point is HMRB – Atrium)

APPEALS

If there is a concern with the course, academic matter or a grade, first communicate with the instructor. If these concerns cannot be resolved, students can proceed with an academic appeal, as per Section N of the Faculty of Graduate Studies Calendar. Students must follow the official process and should contact the Student Ombuds Office (www.ucalgary.ca/student-services/ombuds) for assistance with this and with any other academic concerns, including academic and non-academic misconduct

THE FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY (FOIP) ACT

This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIP) and students should identify themselves on written assignments (exams and term work.) by their name and ID number on the front page and ID on each subsequent page. Assignments given by you to your course instructor will remain confidential unless otherwise stated before submission. The assignment cannot be returned to anyone else without your expressed permission to the instructor. Grades will be made available on an individual basis and students will not have access to other students' grades without expressed consent. Similarly, any information about yourself that you share with your course instructor will not be given to anyone else without your permission

WELLNESS AND MENTAL HEALTH RESOURCES

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the excellent mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre, at www.ucalgary.ca/wellnesscentre/services/mental-health-services and the Campus Mental Health Strategy website at www.ucalgary.ca/mentalhealth/

SUPPORTS FOR STUDENT LEARNING, SUCCESS, AND SAFETY

Student Ombudsman: The Student Ombuds' Office supports and provides a safe, neutral space for students. For more information, please visit www.ucalgary.ca/ombuds/ or email ombuds@ucalgary.ca



Student Union: The SU Vice-President Academic can be reached at (403) 220-3911 or suvpaca@ucalgary.ca; Information about the SU, including elected Faculty Representatives can be found here: www.su.ucalgary.ca/

Graduate Student's Association: The GSA Vice-President Academic can be reached at (403) 220- 5997 or gsa.vpa@ucalgary.ca; Information about the GSA can be found here: gsa.ucalgary.ca

SAFEWALK

Campus security will escort individuals, day or night, anywhere on campus (including McMahon Stadium, Health Sciences Centre, Student Family Housing, the Alberta Children's Hospital and the University LRT station). Call 403-220-5333 or visit www.ucalgary.ca/security/safewalk. Use any campus phone, emergency phone or the yellow phone located at most parking lot pay booths. Please ensure your personal safety by taking advantage of this service.