



**CUMMING SCHOOL OF MEDICINE  
GRADUATE COURSE OUTLINE**

| <b>COURSE TITLE: Business Case Studies</b> |  |                     |  |
|--|--|---------------------|--|
| <b>Course</b>                              | MDGE 608   |                     |  |
| <b>Pre/Co-Requisites</b>                   | All students must be registered in the MBT graduate program, or have special permission from the Course Coordinator.   |                     |  |
| <b>Faculty</b>                             | Cumming School of Medicine, Graduate Science Education   |                     |  |
| <b>Instructor Name(s)</b>                  | Dr. Jan Braun (Course Coordinator)<br>Sabiha Zaman (Instructor)  | <b>Email</b>        | <a href="mailto:snzaman@ucalgary.ca">snzaman@ucalgary.ca</a> |
| <b>Office Location</b>                     | HMRB B21B  | <b>Office Hours</b> | By appointment   |
| <b>Instructor Email Policy</b>             | All assignments to be emailed to <a href="mailto:snzaman@ucalgary.ca">snzaman@ucalgary.ca</a> . Will respond to @ucalgary emails within 24 hours on weekdays |                     |  |
| <b>Telephone No.</b>                       | 403-210-9342   |                     |  |
| <b>TA Name, if applicable</b>              | N/A  | <b>Email</b>        |  |
| <b>Class Term, Days</b>                    | Winter Term 2020, Mondays and Wednesdays   |                     |  |
| <b>Class Times</b>                         | 1 PM – 4 PM  |                     |  |
| <b>Class Location</b>                      | G801E  |                     |  |

| <b>COURSE INFORMATION/DESCRIPTION OF THE COURSE</b>   |
|---|
| <p>This course is a required course for students enrolled in the Masters 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.</p> |
| <b>LEARNING RESOURCES/REQUIRED READING</b>  |
| <p><i>Bootstrap Finance: The Art of Start-ups</i>, Bhidé, <u>Harvard Business Review</u>, 1992, 70(6), 109-117.</p> <p><i>For a Booming Economy, Bet on High Growth Firms, Not Small Businesses</i>, Isenberg and Brown, <u>Harvard Business Review Digital Articles</u>, February 03, 2014, 2-4.</p>   |



### Technology Requirements

A shell in D2L is set up for this course where refereed journals will be posted to be used in group presentations, online discussions, and assignment submission purposes. A laptop, desktop, or mobile device is required for D2L access.

### 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.

### 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              | 90-94                 | Excellent – superior performance showing comprehensive understanding of the subject matter   |
| A-    | 3.70              | 85-89                 | Very Good Performance  |
| B+    | 3.30              | 77-84                 | Good Performance   |
| B     | 3.00              | 72-76                 | Satisfactory Performance   |
| B-    | 2.70              | 68-71                 | Minimum Pass for Students in the Faculty of Graduate Studies   |
| C+    | 2.30              | 63-67                 | All grades below 'B-' are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements |

**Assessment Components:** The University policy on grading related matters is outlined in the [2019-2020 Calendar](#).

| Assessment Methods                           | Description   | Weight % | Due Date and Time  |
|--|---|----------|--|
| Strategic Recommendation Report (Individual) | A strategic recommendation to the executive team of <b>one</b> of the companies analyzed in case studies. Includes SWOT analysis.   | 20%      | Email: <a href="mailto:snzaman@ucalgary.ca">snzaman@ucalgary.ca</a> by March 20, 2020 by 11 PM                           |
| Oral Presentation (Group)                    | Oral Presentation on the strategic review of <b>one</b> publically traded company selected. The presentation will be judged for presentation style, completeness and accuracy plus response to questions from the audience. | 35%      | In Class: March 18, 2020   |
| Written Report (Group)                       | Written report on the strategic review of the company selected. Details below.  | 25%      | Email: <a href="mailto:snzaman@ucalgary.ca">snzaman@ucalgary.ca</a> by March 27, 2020 by 11 PM                           |
| In Class assignments (Group and Individual)  | <ol style="list-style-type: none"> <li>1. Team Charter (5%)</li> <li>2. Business Model Canvas (5%)</li> <li>3. Investor's Checklist (10%)</li> </ol>  | 20%      | <ol style="list-style-type: none"> <li>1. March 9 class</li> <li>2. March 16 class</li> <li>3. March 18 class</li> </ol> |

## 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).

#### Student Team Assignments (35% oral report + 25% 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 11th. 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 submit a five page report (single space, Font: Arial Size: 12, excluding references, figures). The review should include a survey of corporate history, scientific and technological foundations, intellectual property portfolio, product development strategy, market evaluation, financial analysis and future 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. DelMar Pharmaceuticals
5. Zymeworks
6. Immunovaccine
7. Microbix Biosystems
8. Bellus Health
9. Aurinia Pharmaceuticals
10. Aptose Biosciences
11. Trillium Therapeutics
12. Xenon Pharma
13. Resverlogix
14. Edesa Biotech
15. Nuvo Pharmaceuticals
16. Helix BioPharma
17. Cipher Pharmaceuticals
18. Spectral Medical
19. Medicenna Therapeutics
20. Correvio Pharma

In preparing your oral and written reports the details will vary for each company and team. All of 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 also 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 most or all of 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

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?

#### FINAL EXAMINATIONS:

There is no final exams 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? No

| COURSE TIMETABLE     |  |                               |                               |
|----------------------|--|-------------------------------|-------------------------------|
| Course Schedule Date | Topic & Reading  | Instructor                    | Assignments/Due Dates & Times |
| March 9 (Mon)        | Introduction to Course<br>Team formation & Team Charter<br>Overview of expectation | Sabiha Zaman & Guest Lecturer | Team Charter – in class       |

|                   |  |                                  |   |
|-------------------|--|----------------------------------|---|
|                   | Case Study 1<br>Class discussion and analysis                          |                                  |   |
| March 11<br>(Wed) | SWOT Analysis<br>Case Study 2<br>Class discussion and analysis         | Sabiha Zaman &<br>Guest Lecturer |   |
| March 16<br>(Mon) | Business Model Canvas<br>Case Study 3<br>Class discussion and analysis | Sabiha Zaman &<br>Guest Lecturer | Business Model Canvas – in<br>class   |
| March 18<br>(Wed) | Student Team Presentations<br>Class discussion and analysis            | Sabiha Zaman                     | Investor’s Checklist – in<br>class  |
| March 20<br>(Fri) | -  | -                                | Recommendation Report<br>(Individual) - email<br>snzaman@ucalgary.ca by<br><b>11 PM</b> |
| March 27<br>(Fri) | -  | -                                | Written Report (Group) -<br>email<br>snzaman@ucalgary.ca by<br><b>11 PM</b>             |

#### 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/electronic-communicationspolicy.pdf>.

#### MEDIA AND RECORDING IN LEARNING ENVIRONMENTS

##### Media recording for lesson capture

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 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/](http://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 <http://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

### **COPYRIGHT**

It is the responsibility of students and professors to ensure that materials they post or distribute to others comply with the Copyright Act and the University's Fair Dealing Guidance for Students ([library.ucalgary.ca/files/library/guidance\\_for\\_students.pdf](http://library.ucalgary.ca/files/library/guidance_for_students.pdf)). Further information for students is available on the Copyright Office web page ( <https://library.ucalgary.ca/copyright>)

### **A NOTE REGARDING INSTRUCTOR INTELLECTUAL PROPERTY**

Generally speaking, 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

### **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 <http://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 (<http://www.ucalgary.ca/provost/students/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 (Room 370, MacEwan Student Centre), <https://www.ucalgary.ca/wellnesscentre/services/mental-health-services> and the Campus Mental Health Strategy website <https://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/](http://www.ucalgary.ca/ombuds/) or email [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca)

**Student Union:** The SU Vice-President Academic can be reached at (403) 220-3911 or [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca); Information about the SU, including elected Faculty Representatives can be found here: <https://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](mailto:gsa.vpa@ucalgary.ca); Information about the GSA can be found here: <https://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 <http://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.