

ITU

MBA Capstone Internal Assessment Analytics



Purpose

This document is an analysis of student performance as evidenced in ITU's Capstone courses administered by the Department of Business Administration. The MBA capstone program constitutes an internal benchmark of performance over time.

Introduction

A student, through their MBA program, is exposed to various learning opportunities; theoretical (e.g. core and elective courses) and practical (e.g. internships). A capstone course at ITU represents the culmination and confluence of a student's learning in the MBA program.

A student may enroll in the Capstone program upon completion of 27 credits or in the last trimester of their degree at ITU. The student has a choice of doing a capstone thesis or a capstone project, depending on their academic and practical interests.

All students, regardless of whether they are enrolled in the capstone courses (thesis or project), are required to complete the Peregrine Outbound Exam (external benchmark). The results from the Peregrine exam are beyond the scope of this report. These results are reported separately as part of the Peregrine Assessment Analytics.

Capstone Learning Outcomes

In generating this report, the following parameters have been used.

All courses in the Department of Business Administration follow a hierarchy of learning outcomes. This hierarchy is represented as follows:

Course Learning Outcomes (CLO) > Emphasis Learning Outcomes (ELO) > Program Learning Outcomes (PLO) > Institutional Learning Outcomes (ILO)

In the Department of Business Administration, ELOs are synonymous with Student Learning Outcomes (SLOs) used elsewhere.

MBA Capstone Project Course Learning Outcomes (CLOs)	MBA Capstone Thesis Course Learning Outcomes (CLOs)
Distinguish how venture capital can proactively fund entrepreneurial business plans	Distinguish business problem and establish research hypotheses.
Construct an effective and well-conceived business plan that can be presented to investors, equity or debt financiers.	Examine and set up a framework for investigating and analyzing research problem in an academic perspective.
Explain what constitutes a well-thought out business plan presentation before venture capitalists (VC) that meets expectations of a project needs, vision and strategies.	Relate their acquired knowledge to analysis, synthesis and evaluation activities encountered in their workplace.
Create a slide deck that attracts investors and VC who will invest in the venture.	Identify the current literature in the topic of study and the applicability to current issues in the workplace.
Construct Silicon Valley contacts using the strategies and the presentation of the business plan.	Generate meaningful recommendations at the end.

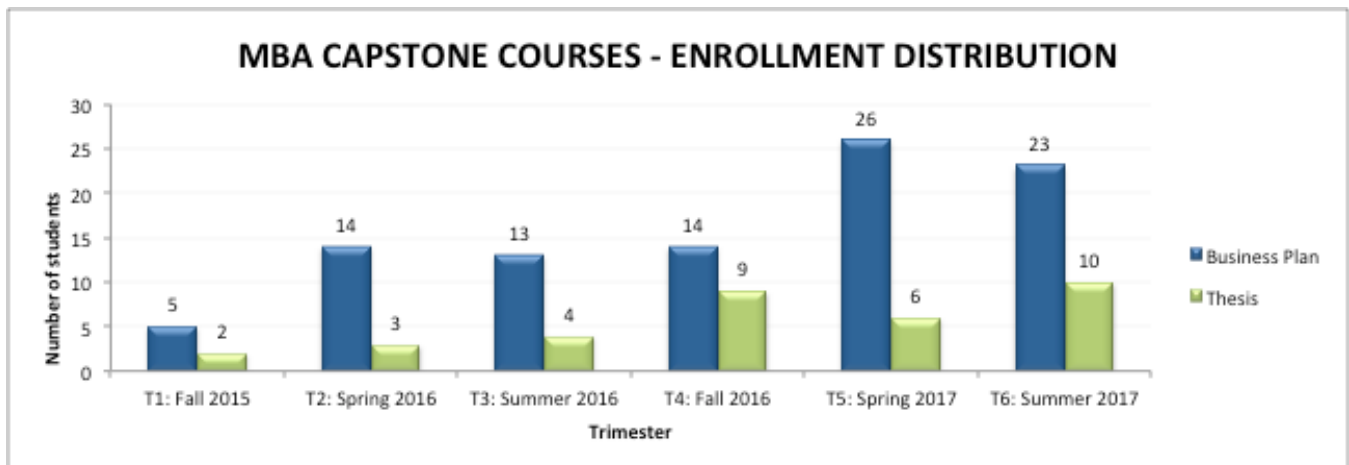
As the capstone program represents the culmination of a students learning over the program as measured by CLOs which are mapped to ELOs, the measure of performance used is average percentage scores from one trimester to another.

In this report, we present data for six (6) data points. These data points constitute average percentage scores from Fall 2015 to Summer 2017 (both inclusive).

Capstone results at a glance

- In general, the Capstone Business Plan attracts more students per trimester than the Capstone thesis course. However, the thesis courses are slowly increasing in enrollment.
- Despite differences in class size, course aims and teaching methodology, students have historically performed at similar levels (between 90% and 95%) until and including Summer 2016. After this, a slight decrease has been noted in student grades in the thesis courses.
- The only exception to the trend of spectacular performance in the Capstone project course has been noted in Fall 2015. In this term, a much lower class average of 52% was recorded. This may be attributed to a different member of faculty administering the course and potentially different teaching methodology. The sections below contain an analysis of results in greater detail.

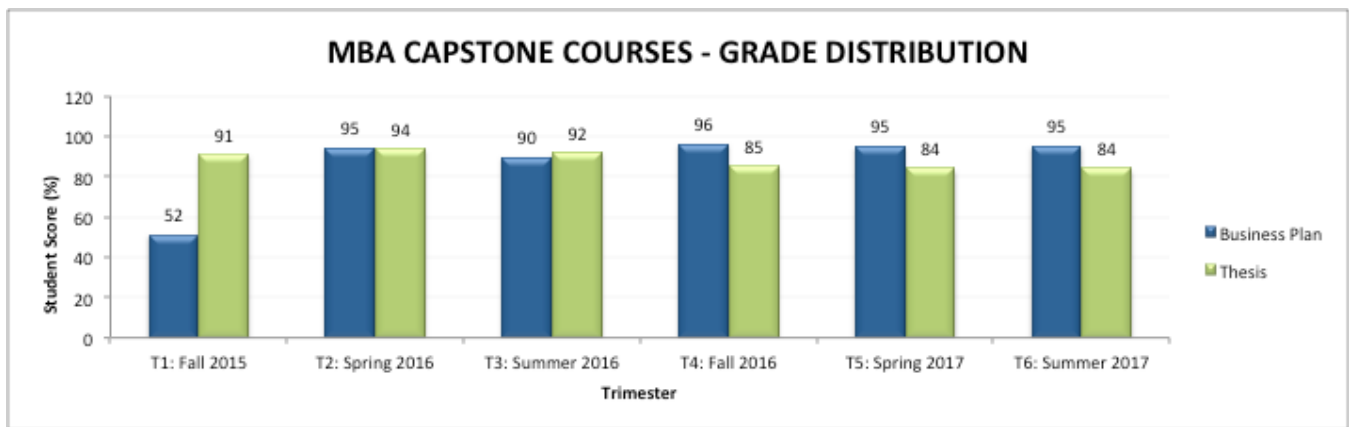
Analysis of results



- Between Fall 2015 and Summer 2017, the numbers of students opting to take the Capstone project have steadily increased from 5 students to 23 in Summer 2017. It must be noted that there has been a slight decrease in this number between Spring 2017 and Summer 2017. This declining trend must be observed closely for signs of decline in course and/or teaching quality. Further, this decline may be an indication of

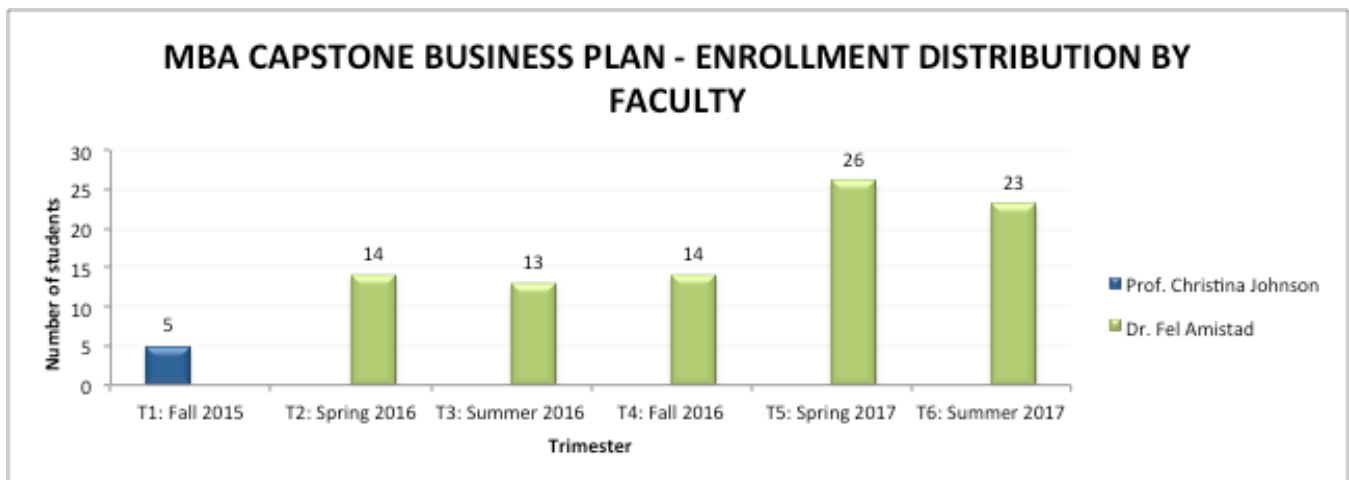
lower enrollments in general, and students opting to defer graduation, and take breaks among others.

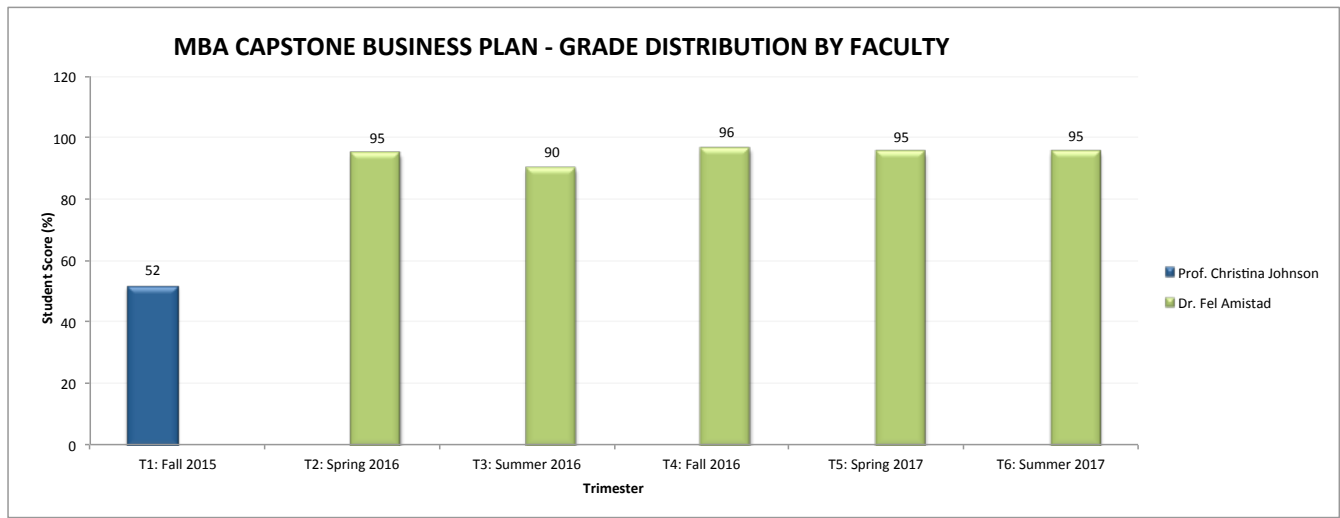
- Historically, the number of students opting into the thesis course has been lower than the project course. Potential reasons for this trend are the perceived difficulties in completing a thesis to satisfaction within one (1) trimester (four months), students' perceived fears of not being able to juggle a full course load (nine credits) and/or internships with the demands of completing a thesis. However, the number of students enrolled in the thesis courses is steadily increasing. This is a testament to the excellent faculty and the amount of efforts expended by faculty while they advise thesis students. Some faculty also encourages students with stellar theses to publish their work in reputed academic journals.



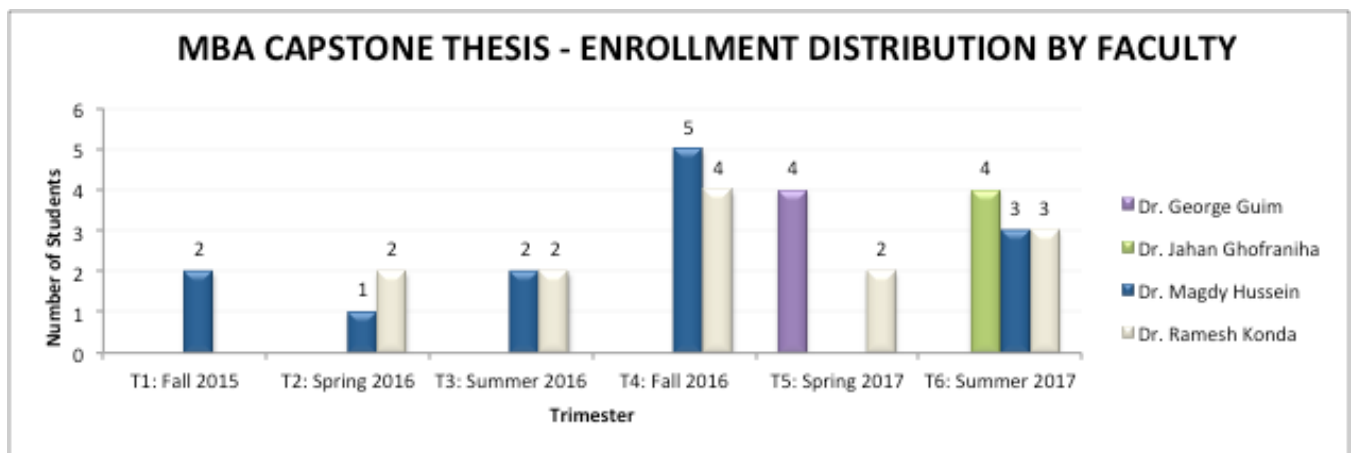
- The Capstone courses are generally graded as a “Pass” (P) or a “No Pass” (NP). However, a score that is denoted as a percentage accompanies this grade.
- Despite the perceived difficulty in completing a thesis in a single trimester, grades earned by project and thesis students are on par with each other. Exceptions are Fall 2015 scores for the business plan. It must be noted that this is an outlier as the faculty advising this section was different from the faculty members advising in the subsequent offerings of the capstone project.

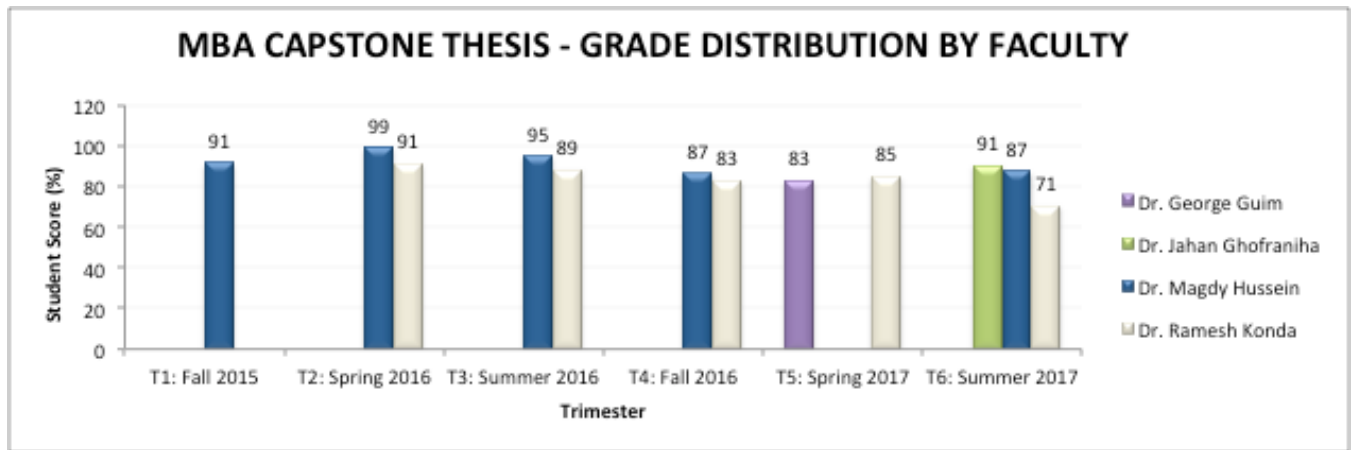
- Capstone project scores between Spring 2016 and Summer 2017 are relatively consistent at 95%. However, thesis grades, which were above 90%, have displayed a declining trend since Fall 2016. This could be due to the rigor of the thesis course, and faculty expectations. While the capstone courses display consistent scores from term to term, there is more variation in student scores in the thesis course. As opposed to the Capstone project course, which is taught by the same faculty member each term (since Spring 2016), students are advised by different faculty members in the thesis course. This may also contribute to the variation noted. However, this also may indicate the need for a closer look at the grading in the project course. We explore this variation further.





- As previously mentioned, the distribution of student grades from trimester to trimester is reasonably consistent. The only exception is Fall 2015, where the capstone project course was administered by a different faculty member and grades were a little suppressed. This may be attributed to teaching methodology. Since, Dr. Amistad took over teaching students in this course, however, grades have been consistently high. However, an internal audit process is recommended to gauge the quality of student submissions in this course.





- In comparison to the capstone project course, the capstone thesis course is administered in several sections per term. This is predominantly due to the one on one advising requirements between faculty advisors and students.
- Key things to be noted are the increase in student interest to take on the thesis, even if it is challenging to complete the thesis within the four (4) month time frame. Second, over time, there has been some variation in student performance. This may be attributed to the varying levels of rigor brought to the thesis advising process by well-qualified faculty and also by the motivations of students to achieve their research goals.
- In viewing grade distribution by faculty for Summer 2017, it may be noted that between the sections advised by Dr. Ghofraniha and the sections advised by Dr. Konda, there is significant variation. It is recommended that some sort of an overall quality assurance process be instituted so that grading mechanisms are consistently applied over what is a very subjective area.

Further considerations

- In future, ITU and the Business Department are working on more in-depth analyses on mapping performance of individual students at ELO level. This project is currently underway from a systems perspective.

- Noting the trend of consistently high performance in the capstone project course over a longer time frame has indicated the need for an internal audit. This is to ensure quality outcomes in this course.
- Additionally, due to the increase in the number of faculty advising students in the thesis course, it is recommended that an overall quality assurance process be instituted to eliminate the variations in grading between faculty.
- To include a more robust learning outcomes assessment component to this report, we recommend that faculty consider the students' final submissions (business plan project and/or thesis) as a "signature assignment". This implies that students in these courses will be graded along CLOs on the signature assignment. This assessment is mandatory for all courses in the MBA degree program.

Conclusions

- It has been observed that students in the MBA program prefer the Capstone business plan course to the thesis class. The number of students enrolling in this course evidences this. This preference may be attributed to several factors:
 - The practical and application based nature of building business plans
 - The ability of tuning into the entrepreneurial spirit of Silicon Valley
 - The degree of alignment or fit between their current internships and/or future career aspirations
- Despite this strong student preference for the capstone project courses, the number of students wishing to take on the thesis courses is steadily increasing.
- Student performance on the capstone projects has been consistently high, necessitating a quality assurance check. Similarly, variations have been noted in the grades earned by students in the thesis courses, requiring a centralized quality assurance authority.

- Lastly, additional considerations to make this analysis more meaningful have been provided.

Results of Grading Quality Assurance

- As previously mentioned that we noted that the Capstone project students consistently received high scores (90% and above). The department chair, on review, requested a response from the faculty member. Following are excerpts from the professor's response:

"The students have been adhering to needed higher standards given the group work they have to carry out as a "group."... But with group performance, I am sure students performed best as a group putting in their fair share.... I evaluated students according to both group project performance and tests/exam results to ensure fairness.

Since this Capstone is the ultimate or very last course at ITU, many students have improved their presentation and written graduate writing skills compared to entry level students who perform under different levels. I believe many of our ITU grad students deserve their grades. As a team or group I have already warned students about failure or F grades due to plagiarism and cheating....

I do see a marked improvement in our students' achievement and I do ensure that they earn their grades."

- Based on the above, the department chair recommends that we create an evaluation form for peer work in the course. This will ensure that a 360 degree evaluation is considered as part of the students' grade in this culminating experience.
