Teaching Dossier

(1995-2024)

Preface

My voyage into university teaching commenced as a Graduate Assistant and Assistant Lecturer immediately after earning my B.Sc. degree in Mechanical Engineering from Addis Ababa University, Ethiopia, in 1995. Throughout my career, I've been deeply passionate about imparting knowledge to both undergraduate and graduate students. As of the academic year 2023/2024, I've had the privilege of teaching 28 distinct courses (many of them multiple times) across three esteemed institutions: Addis Ababa University, Concordia University, and the University of Guelph. These courses have been met with consistently positive evaluations from students. In Section 1, I offer a brief overview of my teaching and graduate advising endeavors. This section includes the titles of the 28 courses I've taught—from 1995 to 2024—across the three universities. Additionally, I summarize my involvement in graduate studies as an advisor/co-advisor, advisory committee member, thesis examiner, and qualifying examiner. Section 2 delves into my teaching philosophy, providing a brief exploration of my approach to education.

In Section 3, I provide a comprehensive overview of my teaching activities. Specifically, Section 3.1 delves into my contributions at the University of Guelph with four subsections. Section 3.1.1 begins by listing 10 distinct courses that I taught in the School of Engineering. I offered these courses in a total of 47 times, including **9 overload teaching instances**. Notably, when I joined the university in 2010, the mechanical engineering program was in its infancy, and I was the pioneering faculty member for the program. As a result, I developed three new undergraduate courses and one graduate course from scratch while I was a tenure track faculty. My commitment to course development also extended beyond those initial four courses. Over the years, I created three additional graduate courses. In Section 3.1.2, I briefly discuss the effort invested in developing these seven courses. Section 3.1.3 summarizes the course evaluations for all the courses I taught in the School of Engineering. Finally, Section 3.1.4 showcases positive comments from course evaluations, highlighting my teaching efforts and effectiveness in the School of Engineering. My teaching contributions at Concordia University, including summary of course evolutions and students' comments are given in Section 3.2. The last subsection, Section 3.3, provides the list of 13 different courses and the number of times taught these courses when I was a lecturer at Addis Ababa University. A summery of sample course evaluation at Addis Ababa University is also included in Section 3.3.

Since I joined the School of Engineering, I have been actively involved in the School of Engineering graduate program in various rolls. In Section 4, I offer descriptions and tabular summaries of my involvement in graduate studies, including serving as an advisor or co-advisor, being a member of graduate advisory committees, examining PhD qualifying exams, and serving as internal and external theses examiner. In Section 5, I provide detailed descriptions of the seven new courses I developed. For each of these courses, I include information such as development effort, the calendar description, course aims, learning objectives, graduate attributes, lecture schedules, and lab schedules. Finally, Section 6 contains copies of course evaluations from both **Concordia University** and **Addis Ababa University**.

Table of Contents

Preface: 2
Table of Contents 3
1 Summary of Activities in Teaching and Graduate Studies 6
1.1 Summary of Teaching 6
1.2 Summary of Activities in Graduate Studies 7
1.2.1 Graduate Students Advising/Co-advising: 7
1.2.2 Graduate Advisory Committee: 7
1.2.3 Qualifying Examination Committee: 8
1.2.4 Thesis Examination 8
2 Teaching Philosophy 9
2.1 Introduction 9
2.2 Passion 9
2.3 Delivery 9
2.4 Respect 10
2.5 Concluding Remark 10
3 Teaching Contribution 11
3.1 Teaching Contribution at University of Guelph 11
3.1.1 Summary of Courses I taught in SOE 11
3.1.2 Summery of New Course/New Lab Development 12
3.1.3 Summary of Couse Evaluation (U of G) 15
3.1.4 Sample Positive Comment in Course Evolutions – University of Guelph 20
3.2 Teaching Contribution at Concordia University 27
3.2.1 Summary of Courses I taught in Concordia University 27
3.2.2 Summary of Couse Evaluation (Concordia University) 28
3.2.3 Sample Comment in Course Evolutions (Concordia University) 29
3.3 Teaching Contribution at Addis Ababa University 30
3.3.1 Summary of Courses I taught in Addis Ababa University 30
3.3.2 Summary of Couse Evaluation (Addis Ababa University) 31
4 Graduate Studies 33
4.1 Graduate Student Advising/Co-Advising 33

4.2 Research Associate Advising 34
4.3 Graduate Advisory Committee 34
4.4 Qualifying Examinations Committee 36
4.5 Thesis Examination Committees 38
4.5.1 Theis Examination in the school of Engineering 38
4.5.2 Thesis Examination Outside University of Guelph (External Examiner) 39
5 Description of the New Courses I Developed in University of Guelph 40
5.1 Kinematics and Dramatics (ENGG*2340) 40
5.1.1 Calendar Description 40
5.1.2 Course Aims 40
5.1.3 Learning Objectives 40
5.1.4 Graduate Attributes 41
5.1.5 Lecture Schedule 41
5.1.6 Lab Schedule 42
5.2 Integrated Manufacturing Systems (ENGG*3070) 42
5.2.1 Calendar Description 43
5.2.2 Course Aims 43
5.2.3 Learning Objectives 43
5.2.4 Graduate Attributes 43
5.2.5 Lecture Schedule 44
5.2.6 Lab Schedule 46
5.3 Computer Aided Design and Manufacturing (ENGG*3120) 46
5.3.1 Calendar Description 46
5.3.2 Course Aims 47
5.3.3 Learning Objectives 47
5.3.4 Graduate Attributes 47
5.3.5 Lecture Schedule 48
5.3.6 Lab Schedule 48
5.4 Simulation Analysis of Discrete Event Systems - ENGG*6380 49
5.4.1 Course Aims 49
5.4.2 Learning Objectives 49
5.4.3 Course Topics and Schedule 49

5.4.4 Lab Schedule (evaluated during lab time) 51
5.5 Production Planning and Control (ENGG*6290) 51
5.5.1 Calendar Description 51
5.5.2 Learning Objectives 52
5.5.3 University of Guelph – Graduate Degree Learning Outcomes 52
5.5.4 Course Topics and Schedule 53
5.6 Desing of Experiments (ENGG*6090) 53
5.6.1 Calendar Description 54
5.6.2 Learning Objectives 54
5.6.3 University of Guelph – Graduate Degree Learning Outcomes 54
5.6.4 Course Topics and Schedule 54
5.7 Computer Aided Design (ENGG*6290) 55
5.7.1 Calendar Description 55
5.7.2 Learning Outcomes 56
5.7.3 Graduate Attributes 56
5.7.4 Course Topics and Schedule 56
6 Copies of Course Evaluations (Concordia and Addis Ababa University) 58
6.1 Course Evaluations (Concordia University) 58
6.2 Course Evaluation Copies (Addis Ababa University) 103

1 Summary of Activities in Teaching and Graduate Studies

1.1 Summary of Teaching

I started my university teaching career as ***Graduate Assistant and Assistant Lecturer*** immediately after my graduation with a **B.Sc.** degree in Mechanical Engineering from Addis Ababa University, Ethiopia in 1995. I have greatly enjoyed teaching undergraduate and graduate courses during my career. As of the academic year 2023/2024, I taught **28 different courses** (most of them multiple times with very good students' evaluations). The following is the list of these 28 different courses that I taught in nearly 29 years of my university teaching career.

1. Computer Aided Design and Manufacturing – ENGG*3120 (**University of Guelph**)
2. Kinematics and Dynamics – ENGG*2340 **(University of Guelph**)
3. Integrated Manufacturing Systems – ENGG*3070 (**University of Guelph**)
4. Engineering Mechanics I – ENGG*1210 (**University of Guelph**)
5. Optimization for Engineers – ENGG*3700 (**University of Guelph**)
6. Computer Aided Design – ENGG*6290 (**University of Guelph**)
7. Simulation Analysis of Discrete Event Systems – ENGG*6380 (**University of Guelph**)
8. Optimization Techniques – ENGG*6140 (**University of Guelph**)
9. Production Planning and Control – ENGG*6290 (**University of Guelph**)
10. Desing of Experiments – ENGG*6090 (**University of Guelph**)
11. Industrial Systems Simulation - INDU 311 (**Concordia University**)
12. Operations Research II - INDU 324 (**Concordia University**)
13. Advanced Operations Research - INDU 6121 (**Concordia University**)
14. Industrial Operations Research INDU 323 (**Concordia University**)
15. Production Systems and Inventory Control INDU 6211 (**Concordia University**)
16. Industrial Management and Engineering Economy – MEng 515 (**Addis Ababa University**, Ethiopia)
17. Production Engineering I (machining) – MEng 409 (**Addis Ababa University**, Ethiopia)
18. Production Engineering II (metal forming) – MEng 410 (**Addis Ababa University**, Ethiopia)
19. Statistical Quality Control (**Bahir Dar University**, Ethiopia, part-time)
20. Management Information Systems (**Bahir Dar University**, Ethiopia, part time)
21. Tool and Die Design (**Defence Engineering College**, Ethiopia, part-time)
22. Introduction to Probability and Statistics – EEng 212 (**Addis Ababa University**, Ethiopia)
23. Descriptive Geometry and Technical Drawing - MEng 201 (**Addis Ababa University**, Ethiopia)
24. Machine Drawing I – MEng 204 (**Addis Ababa University**, Ethiopia)
25. Machine Drawing II – MEng 305 (**Addis Ababa University**, Ethiopia)
26. Strength of Material II – MEng 309 (**Addis Ababa University**, Ethiopia)
27. Engineering Mechanics II (Dynamics) – MEng 202 (**Addis Ababa University**, Ethiopia)
28. Engineering Mechanics IV (Vibration) – MEng 416 (**Addis Ababa University**, Ethiopia)

Out of 28 different courses listed above, I taught **10** of them here in the School of Engineering **from which I developed 7 new courses (3 new undergraduate and 4 new graduate)** within the past fourteen years. I

taught these 10 different courses in a total of 47 times in 14 years (**including 9 overload teaching**). I have put the utmost efforts into developing and delivering many new courses. The development of these courses includes setting course objective and linking to graduate attributes, establishing contents to meet objectives, creating assignments and projects, developing both computer based and physical laboratory experiments with lab manuals. In addition to developing new courses, as the first hire of the mechanical program in the School of Engineering, I was heavily involved in revising the curriculum of the new program in its early stage. As an example, I proposed and got approved a new mechanical core course titled "Introduction to Manufacturing Process- ENGG*2180". It is important, to note that after I initiated the development of this course, the visiting members of accreditation from CEAB also suggested this course to be developed. This course was eventually offered for the first time in Winter-15 by Dr. Ibrahim Diab. As the first hire of the Mechanical Engineering program, I took pride of being part of its successes in graduating its first and second batches in 2013/2014, its first accreditation by the CEAB, and its continued growth to this very day.

1.2 Summary of Activities in Graduate Studies

Since I joined the School of Engineering as assistant professor in 2010, I have been actively involved in four core areas of graduate studies. These areas are (i) Graduate Students Advising/Co-advising, (ii) Graduate Advisory Committee, (iii) Qualifying Examination Committee, and (iv) Thesis Examination Committee.

1.2.1 Graduate Students Advising/Co-advising:

The table below summarizes my graduate student advising record in the School of Engineering.

Degree	Advisor	Co-Advisor	Total
PhD	4*	3	7
MASc	11	0	11
Research Associate	3	0	3
MENG (non-thesis)	6	0	6
Total	**24**	**3**	**27**
*** One of the 4 PhD students withdrawn after more than two years of study because of health reason.**			

1.2.2 Graduate Advisory Committee:

I am actively involved in serving as a member in many advisory committees for students for whom **I am not** the advisor or the co-advisor. In the following table, I am summarizing the advisory committees I get involved in which **I am neither the advisory nor the co-advisory.** It is an act of giving service to other professors in the school of engineering.

Degree	Number of committees served	Responsibility (not as advisor, not as co-advisor)
PhD	13	Member
MASc	7	Member
MENG	6	Member
Total	**26**	**NA**

1.2.3 Qualifying Examination Committee:

I have been involved as PhD qualifying exam committee for a total of 33 PhD students. This assignment takes approximately 4.75 hours per each student as shown below:

- 15-minutes email communications
- Two 15-minute meetings with the student (total 30 minutes)
- 30-minutes for preparing exam questions
- 30-minutes for marking written part of the QE exam
- 180 minutes for oral examination and deliberation

I spent a total of 156.75 hours in this activity. This is equivalent to the total lecture time of 4.35 graduate courses. The table below summarizes my involvement as examiner in PhD qualifying examinations.

Subject Area	Number of PhD Qualifying Examinations	Responsibility
Design of Experiments	27	Examiner
Optimization Technique	5	Examiner
Discrete Event Systems Simulation	1	Examiner
Total	**33**	**NA**

1.2.4 Thesis Examination

In the past 14 years, I have participated in thesis examinations for a total 26 students in which **I am not the advisory or the co-advisory**. These services are for students advised or co-advised by other professors. Out of the 26 examinations, six of them are outside University of Guelph where I was an external examiner both at a national and international levels. The following table summarises my involvement in thesis examination (**excluding the examinations in which I am the advisory or the co-advisor**).

Role:	PhD (thesis)	MASc (thesis)	MENG (Major Research Project)	Total
Chair (in SOE)	4	3	0	**7**
Examiner (in SOE)	1	10	2	**13**
External Examiner (in Canada, National)	3	NA	NA	**3**
External Examiner (outside Canada, International)	3	NA	NA	**3**
Total	**11**	**13**	**2**	**26**

2 Teaching Philosophy

2.1 Introduction

Being a professor comes with a great deal of responsibility. Professors are fundamental in educating today's students to become tomorrow's workforces, engineers, researchers and scientists. Professors are also fundamental in developing new techniques and technologies to address society's current and future needs through their research. Fulfilling the role of a university professor begins with a formidable and unreserved commitment to these responsibilities and values. I strongly believe that it is very important to carry out both these two responsibilities concurrently to ensure that (1) society's problems are addressed, (2) experiences from research are implemented in courses and (3) students are exposed to both fundamental and current materials in their classrooms. By including research in courses, I will also gain from being forced to interpret results and reflect on the status of the research program. This reflection is an important step when developing new research programs, shaping exiting courses and proposing new ones. With this in mind, my teaching philosophy is continued here under.

2.2 Passion

I am so passionate about my teaching and there is nothing that makes me feel proud more than seeing my students succeed in their professional career. Though, these successes are cumulative effects of the contributions of many extraordinary educators, parents and the students themselves, I will not take my part very lightly. In this endeavor, I am always committed to keep course materials current, relevant, simple, understandable and clear without losing the much-needed theoretical depth for a university level teaching. I am also devoting sufficient time and efforts in identifying appropriate delivery methods for the courses that I am teaching to keep students interested, engaged, motivated and understand and eventually benefit from taking these courses.

2.3 Delivery

There is a distinct difference between learning and memorization. I endeavor to convince students to understand concepts so that they may apply these concepts in a variety of situations, rather than memorize steps to solve a particular problem. With such endeavor, I expect students will be able to retain concepts more easily. I expect students to want to learn and do much of the work during the learning process. With this expectation, I can't accept the title of a "teacher." I try to act as a facilitator in the learning process, rather than a mere deliverer of information. I recognize that students learn in a variety of ways, and I attempt to accommodate these methods. I encourage students to find personalized methods to understand and retain concepts, and I assist them by providing my own customized examples for explanation of concepts that elude them. In addition to different learning processes, I strongly believe that students must simply be given the confidence to experiment in the application of newly gained knowledge and to ask questions to promote individual thinking. In an effort to encourage discussion, I am always available to students. Although I arrange formal office hours, students are welcome to make appointments or find me anytime.

2.4 Respect

Students deserve respect just as any other person, and there must be mutual respect between the students and me. I strive to earn students' respect in a variety of intellectual and professional ways, given that respect cannot simply be awarded. I take a sincere interest in the well-being of students and interact with them on professional and social levels. I am convinced that social interaction with students develops a rapport with them and they are more comfortable when asking for assistance while in the classroom. In everything that I do, I want to be considered a fair, reasonable and respectful person.

2.5 Concluding Remark

Finally, I would like to mention that, as many things are changing in science and technology, education, and students' backgrounds and needs, I have to always assess these changes and adapt my past and present experience to new requirements. In other words, my teaching strategy and philosophy can be adjusted based on the changing conditions, rather than adhering to a single framework. However, no matter what conditions are changing, maintaining high quality instructions and research activities are my ultimate goals.

3 Teaching Contribution

I have been involved in university level teaching in three different universities: (1) Addis Ababa University from September 1995 to September 2002, before I got my PhD, (2) Concordia University as a part-time faculty when I was research associate from May 2006 to December 2009, (3) University of Guelph as assistant professor from January 2010 to 2015, and as tenured associate professor from 2015 to present. In these appointments, I have greatly enjoyed teaching a large number of undergraduate and several graduate courses. As of this academic year (2013/2014), I taught **28 different courses** (most of them multiple times). This section, summaries my teaching contributions in these three universities mentioned above.

3.1 Teaching Contribution at University of Guelph

3.1.1 Summary of Courses I taught in SOE

Since I joined University of Guelph in 2010, I taught ten different courses in which I developed **three new undergraduate** and **four new graduate** courses within the past fourteen. These courses are summarized here under.

No.	Course Number (Course Title)	Newly developed by me	Level	Number of Times taught
1	Computer Aided Design and Manufacturing (ENGG*3120)	Yes	Undergrad	9
2	Kinematics and Dynamics (ENGG*2340)	Yes	Undergrad	8
3	Integrated Manufacturing Systems (ENGG*3070	Yes	Undergrad	10
4	Engineering Mechanics I (ENGG*1210)	NO	Undergrad	2
5	Optimization for Engineers (ENGG*3700)	No	Undergrad	1
6	Computer Aided Design (ENGG*6290)	Yes	Graduate	3
7	Simulation Analysis of Discrete Event Systems (ENGG*6380)	Yes	Graduate	4

No.	Course Number (Course Title)	Newly developed by me	Level	Number of Times taught
8	Optimization Techniques (ENGG*6140)	No	Graduate	4
9	Production Planning and Control (ENGG*6290)	Yes	Graduate	3
10	Desing of Experiments (ENGG*6090)	Yes	Graduate	3
Total		7 newly developed, and 3 existing	5 undergrad and 5 graduate	47 offering (38 assigned and 9 overload)

3.1.2 Summery of New Course/New Lab Development

The mechanical engineering program was new at the time I was hired, and I was the first to be hired for the program. As a result of this fact, I was required to develop three new undergraduate and one graduate courses from scratch before I was granted Tenure. The development of these four courses happens when I was Tenure track. During the process of granting tenure, the college T&P committee acknowledges this effort (as assessed by external reviewer) by stating "the development of so many new courses by a new faculty is very unusual".

My effort in developing and offering new courses did not stop by the four courses I developed when I was a tenure track. I also develop additional three graduate courses in the past several years. In total, I developed three new undergraduate and four graduate courses. The following subsections describe the development effort of these new courses. The contents of these new courses are provided in Section 5.

*(i) Kinematics and Dynamics-ENGG*2340 (new course and new lab)*

In winter 2011, I started a new course, Kinematics and Dynamics-ENGG*2340. The calendar description was initially set-up by the School Engineering for the new mechanical engineering program. This calendar description covers topics form three different classical mechanical engineering courses: (i) Dynamics, (ii) Mechanism of Machinery, and (iii) Mechanical Vibration. Given such a wider breadth of coverage of subject matters, finding an appropriate textbook, deciding the level of coverage of the various topics, and the preparation of lecture material was challenging task. Moreover, at the time I was assigned this course, a 3-hour lab (for 12 weeks) was supposed to be conducted in Room THRN 1007 where there was not a single equipment and the construction of the room itself was not completed. To tackle this difficult situation, I developed about nine computer-based laboratory exercises. The lab exercises were based on (1) AutoCAD for graphical kinematic and dynamic analysis and (2) using MATLAB programming and

Symbolic Toolbox for analytical kinematic and dynamic analysis of mechanism. Moreover, in these computer-based labs, I introduced the students with a new software called Working Model 2D for animation of mechanisms along with their kinematic and dynamic analysis. I was also involved in person in conducting the labs as the TAs were not quite formalized with this new course. In addition to the computer-based lab, I also set-up a physical lab with different experimental apparatus that were purchased during phase-1 of SOE expansion. These apparatuses include (1) Universal Vibration Analysis, (2) Gear Analysis, (3) Cam Analysis and (4) Dynamic Balancing. I taught this course for eight times.

*(ii) Computer Aided Design and Manufacturing - ENGG*3120 (new course and new lab)*

This is the second new course that I developed and started offering in Winter-2012 and continued to offer it up to Winter 2022. In winter 2012 and winter 2013, I was also personally involved in conducting the lab for this course in addition to preparing the laboratory exercises. As per the initial calendar description when the new mechanical engineering program was proposed, the main coverage of this course is in the areas of solid modeling of parts and assembly and computer numerical control in machining. However, given the advancement of CAD/CAM software and early introduction of CAD/CAM in Design II ENGG*2100, these concepts do not require much effort from the students. To this end, I incorporated additional material to cover design aspect mechanical components and assemblies, such as stress analysis, thermal analysis, impact analysis, buckling analysis, and flow analysis. I also incorporated computer aided sheet metal part design and computer aided injection mold design. I developed a total of 27 class exercises (each one of them with multiple tasks) and 7 lab exercises. During COVID time, I developed a total of 80 video files detailing the class exercises and the labs. In 2023, all the video files, the class and lab exercise I developed over the years were transferred to Dr. Sheng Yang. He continued to use all the materials I developed and there was smooth transition from me to Dr. Yang. During the time Dr. Sheng Yang is in maternity leave (Winter 2024), I supported the sessional instructor by providing all my materials including 80 video files that were developed by me. The course has gained popularity starting from its early offering in 2012 and currently we are discussing to make it core course for the mechanical engineering program.

*(iii) Integrated Manufacturing Systems - ENGG*3070 (new course and new lab)*

This is the third new undereducated course that I developed and started teaching in Fall-2012. In addition to preparing a new lecture material, I was leading the process of the acquisition, installation, and commissioning of an integrated manufacturing systems laboratory at the School of Engineering, University of Guelph. This system has CNC milling and turning machine tools, Robot, Gantry system, Conveyor, assembly station, computer aided inspection, and human-machine-interface system. I was also fully involved in conducting the lab by myself since it was difficult to find TAs with the required skill in operating this lab. In 2014, I am developed a small-scale assembly cell that was used to provide a direct hand-on experience in automation and system integration to students taking this course. The enrollment number of this course grew from 28 students in Fall-2012 to more than 125 students in 2021. Because of curriculum changes in other programs (outside mechanical), the number of students enrolled in this course drops to 73 in 2022 where most of the students are from the mechanical engineering program. Given the fact that this is an elective course for the mechanical program, the enrollment size of 73 can be considered large as it represents more than 50% of mechanical engineering intake.

*(iv) Simulation Analysis of Discrete Event Systems - ENGG*6380*

This is a new graduate course that I developed in Fall-2013. Many complex engineering, operations, and business systems can be modeled as discrete-event systems. These include multi-teller banks; computer networks; automated manufacturing systems; hospital emergency rooms; call center; airport terminals; traffic control systems and so on. To efficiently manage and operate these systems, it is often necessary to apply simulation to study their performance since no closed-form analytical solutions exist for such problems. This course deals with this category of systems. On completion of this course, students were able to demonstrate an understanding of the principles and methodologies of discrete event simulation. Also, they were able to develop simulation models using a general-purpose programming language (C++) or python and the state-of-art simulation package called Rockwell ARENA. I offered this course in Fall-2013, Fall-2019 and Fall-2021. A total of 38 graduate students completed this course in three offerings. I will also be teaching this course for the fourth time in Fall-2024 as it is listed in my 2024-2025 DOE.

*(v) Design of Experiments - ENGG*6090*

Many of our graduate students have experimental components in their research. As evidence, out of a total of 33 occasions in which I served in PhD qualifying examinations, 27 of them are in experimental design. I was also requested by some colleagues to develop a course on Design of Experiments. As a result, a of these facts, I developed this new graduate course in Fall 2017 in SOE and offered it for a total of three times in which 34 students completed the course. This course introduces the principles of experimental design and the techniques of analysis of variance in a manner that emphasizes it engineering applications such as material science, manufacturing process, measurement, and chemical processing.

*(vi) Production Planning and Control - ENGG*6290*

This is third new graduate course I developed offered in Winter 2026, Fall 2020 and Winter 2023. A total of 32 graduate students successfully completed this course in three offerings. The course deals with integrated production planning and control. Models for inventory control, determination of order quantities and safety stocks, and various deterministic and probabilistic inventory replenishment systems are discussed in depth. It also covers model development for demand forecasting, materials requirements planning and manufacturing resource planning (MRP/MRPII), lot sizing, dispatching, and scheduling. Supply chain management, Just-in-Time systems, lean and Agile manufacturing are also introduced in this course. Because of the relevance of the course in Engineering Management, the course is now listed as required course for the newly proposed SOE-LANG joint master's program in Engineering Management. If the new program is approved, this course will be offered with a course number ENGG*6280. The conversion process of this course from special topic to regular course has been already initiated and currently it is under review.

*(vii) Computer Aided Desing - ENGG*6290*

As a result of the success of ENGG*3120 (Computer aided design and Manufacturing) which I developed from scratch and offered for many years, I was having a desire to develop a related course to graduate students for quite some time. As a coincidence, in Fall 2022, I was approached by the graduate program of the School of Engineering to develop and offer a CAD course to the MENG students. I took that opportunity to develop this graduate course and taught it in Winter 2023, Fall 2023 and Winter 2024 as

overloads. A total of 64 MENG graduate students successfully completed this course in these three offerings. As a result of this strong enrollment, I initiated the process of converting this special topic course to a regular course under a new course number ENGG*6430. The conversion process is currently under review.

3.1.3 Summary of Couse Evaluation (U of G)

Course evaluation questionnaires were changing over time in the University of Guelph. These variations can be categorized into three groups:

Group No. #1 – Course evaluation in F20, F21 and afterwards.
Group No. #2 – Course evaluation in W21.
Group No. #3 – Course evaluations in W20 and before.

The following three tables provide the summaries of the course evaluations.

Summery of Group No. #1 Course evaluation (F20, F21 and afterwards) at the University of Guelph
➢ **Q1 I found the course intellectually stimulating.** ➢ **Q2 The course afforded me the opportunity to develop a deeper understanding of the subject matter.** ➢ **Q3 Course projects, assignments, and tests provided opportunities for me to demonstrate an understanding of the course material.** ➢ **Q4 The course afforded me the opportunity to achieve its goals and objectives as stated in the course outline.** ➢ **Q5 The quality of the learning experience offered to me in this course was:** ➢ **Q6 The instructor tried to create a learning environment that was conducive to my learning.** ➢ **Q7 The instructor was available to answer questions during posted hours.** ➢ **Q8 The instructor presented materials clearly.** ➢ **Q9 The instructor encouraged me to think critically about the subject matter.** ➢ ~~**Q10 What is your semester level in your current program?**~~ ➢ ~~**Q11 What was the amount of effort that you put into the course, measured by average number of hours per week, including class time?**~~
Response type to Q1 to Q4: **(5) I strongly agree; (4) I agree; (3) I neither agree nor disagree; (2) I disagree; (1) I strongly disagree.** **Response type to Q5:** **(5) Outstanding; (4) Very Good; (3) Good; (2) Poor; (1) Very Poor** **Response type to Q6 to Q9:** **(5) I strongly agree; (4) I agree; (3) I neither agree nor disagree; (2) I disagree; (1) I strongly disagree.** **Q10 and Q11 are not summarized in this table. Please see the actual course evaluation file.**

No.	Term	Course Number (Course Title)	Enrollment Number	Mean students' response								
				Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
1	F23	Computer Aided Design (ENGG*6290)	23	4.9	4.8	4.7	4.7	4.6	4.7	4.7	4.6	4.5
2	W23	Kinematics and Dynamics (ENGG*2340)	142	4.0	4.0	4.3	4.1	3.6	4.0	4.3	4.1	3.6
3	W23	Production Planning and Control (ENGG*6290)	5	4.4	4.4	4.6	4.6	4.4	4.6	4.6	4.6	4.6
4	W23	Computer Aided Design (ENGG*6290)	24	4.7	4.9	4.8	4.8	4.3	4.7	4.6	4.8	4.7
5	F22	Integrated Manufacturing Systems (ENGG*3070)	73	3.6	3.7	4.0	4.1	3.5	4.2	4.4	3.6	4.1
6	W22	Kinematics and Dynamics (ENGG*2340)	116	4.1	4.0	4.0	4.0	3.5	4.1	4.3	3.5	4.1
7	F21	Simulation Analysis of Discrete Event Systems (ENGG*6380)	5	4.4	4.4	4.6	4.8	4.6	4.8	4.8	4.6	4.8
8	F21	Integrated Manufacturing Systems (ENGG*3070)	125	3.5	3.7	4.0	3.8	3.2	3.9	3.9	3.3	3.6
9	F20	Integrated Manufacturing Systems (ENGG*3070)	118	4.2	4.2	4.3	4.0	3.7	4.1	4.1	3.9	4.1

Summery of Group No. #2 Course evaluation (Only W21) at the University of Guelph

- **Q1 I found the course intellectually stimulating.**
- **Q2 The course afforded me the opportunity to develop a deeper understanding of the subject matter.**
- **Q3 Course projects, assignments, and tests provided opportunities for me to demonstrate an understanding of the course material.**
- **Q4 The course afforded me the opportunity to achieve its goals and objectives as stated in the course outline.**
- **Q5 The quality of the learning experience offered to me in this course was:**
- ~~**Q6 Please provide additional comments regarding the course**~~
- **Q7 The instructor tried to create a learning environment that was conducive to my learning.**
- **Q8 The instructor was available to answer questions during posted hours.**
- **Q9 The instructor presented materials clearly.**
- **Q10 The instructor encouraged me to think critically about the subject matter.**
- ~~**Q11 Please provide additional comments regarding the instructor**~~
- ~~**Q12 What is your semester level in your current program?**~~
- ~~**Q13 What was the amount of effort that you put into the course, measured by average number of hours per week, including class time?**~~

Response type to Q1 to Q4:
(5) I strongly agree; (4) I agree; (3) I neither agree nor disagree; (2) I disagree; (1) I strongly disagree.

Response type to Q5:
(5) Outstanding; (4) Very Good; (3) Good; (2) Poor; (1) Very Poor

Response type to Q7 to Q10:
(5) I strongly agree; (4) I agree; (3) I neither agree nor disagree; (2) I disagree; (1) I strongly disagree.

Q6, Q11, Q12 and Q13 are not summarized in this table. Please see the actual course evaluation file.

No.	Term	Course Number (Course Title)	Enrolment Number	Mean students' response								
				Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q7**	**Q8**	**Q9**	**Q10**
10	W21	Design of Experiments (ENGG*6290)	9	3.7	4.3	4.0	4.2	3.6	4.4	4.1	3.3	3.9
11	W21	Computer Aided Design and Manufacturing (ENGG*3120)	85	4.1	4.5	3.9	4.0	3.8	4.1	4.3	3.9	3.7

Summery of Group No. #3 Course evaluation (W20 and before) at the University of Guelph

- **Q1** The instructor provided a clear statement of course objective and requirements.
- **Q2** The instructor presented the course in a well-organized manner.
- **Q3** Where appropriate, the instructor encouraged response from the class and was responsible to the viewpoints, interest and questions of the students.
- **Q4** The instructor's evaluation of my performance was fair.

- **Q5** The instructor was available for consultation during office hours.

Response type to Q1 to Q6:
(5) I strongly agree; (4) I agree; (3) I neither agree nor disagree; (2) I disagree; (1) I strongly disagree.

- **Q6** My overall rating of the instructor of this course is ____.
- **Q7** My overall rating of the course is _____.

Response type to Q6 to Q7:
(5) Much better than average; (4) Better than average; (3) Average; (2) Worse than average; (1) Much worse than average.

- **Q8** The intellectual effort was _____ for this level.
- **Q9** The work load was _____ for this course.

Response type to Q8 to Q9:
(5) To high, too much; (4) Somewhat high; (3) Just right – best answer; (2) Somewhat low, slightly too little; (1) Too low, too little.

No.	Term	Course Number (Course Title)	Enrolment Number	Mean students' response								
				Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**
12	W20	Computer Aided Design and Manufacturing (ENGG*3120)	63	3.4	3.0	3.0	3.1	3.1	2.9	3.0	3.1	3.6
13	F19	Simulation Analysis of Discrete Event Systems (ENGG*6380)	22	4.4	4.0	4.3	4.5	4.7	4.3	4.3	3.4	3.6
14	F19	Optimization for Engineers (ENGG*3700)	114	4.1	4.0	4.0	4.0	3.7	3.6	3.5	3.2	3.1
15	F19	Integrated Manufacturing Systems (ENGG*3070)	107	3.9	3.7	3.7	4.0	3.8	3.5	3.4	3.0	3.0
16	W19	Production Planning and Control (ENGG*6290)	21	4.7	4.4	4.5	4.5	4.8	4.5	4.4	3.8	4.1
17	W19	Computer Aided Design and Manufacturing (ENGG*3120)	64	3.9	4.1	3.3	3.9	3.7	3.5	3.6	3.1	4.3
18	F18	Integrated Manufacturing Systems (ENGG*3070)	66	4.4	4.3	4.2	4.3	4.1	3.9	3.7	3.0	3.0
19	F18	Simulation Analysis of Discrete Event Systems (ENGG*6380)	16	4.6	4.5	4.0	4.8	4.7	4.4	4.2	3.3	3.6
20	W18	Computer Aided Design and Manufacturing (ENGG*3120)	62	4.1	4.0	3.8	4.0	3.8	3.7	3.9	3.3	4.0
21	F17	Design of Experiments (ENGG*6290)	30	4.6	4.7	4.6	4.8	4.6	4.7	4.4	3.6	3.5
22	F17	Integrated Manufacturing Systems (ENGG*3070)	71	3.9	4.0	4.0	3.8	3.9	3.4	3.2	3.5	3.2

23	W16	Kinematics and Dynamics (ENGG*2340)	164	3.9	3.7	3.5	4.0	3.8	3.3	3.2	3.6	3.7
24	W16	Computer Aided Design and Manufacturing (ENGG*3120)	63	3.6	3.7	3.3	3.6	3.6	3.3	3.4	3.5	4.5
25	W15	Computer Aided Design and Manufacturing (ENGG*3120)	53	4.2	4.1	3.9	4.2	4.1	3.8	3.9	3.3	3.9
26	F15	Integrated Manufacturing Systems (ENGG*3070)	91	3.6	3.8	3.9	3.7	3.9	3.4	3.3	3.2	3.3
27	W15	Optimization Techniques (ENGG*6140)	19	4.3	4.2	4.3	4.3	4.6	4.2	4.1	3.8	3.7
28	W15	Kinematics and Dynamics (ENGG*2340)	163	4.1	4.0	4.0	3.9	3.9	3.6	3.4	3.6	3.8
29	F14	Integrated Manufacturing Systems (ENGG*3070)	56	2.7	2.8	2.5	2.3	3.2	2.2	2.5	3.8	3.8
30	W14	Computer Aided Design and Manufacturing (ENGG*3120)	52	4.7	4.0	3.8	4.2	4.0	4.1	4.0	3.4	3.6
31	W14	Kinematics and Dynamics (ENGG*2340)	160	3.8	3.5	3.8	3.6	3.9	3.3	3.2	3.6	3.7
32	F13	Integrated Manufacturing Systems (ENGG*3070	56	4.1	4.2	4.3	4.2	4.1	4.1	3.6	3.2	3.2
33	F13	Simulation Analysis of Discrete Event Systems (ENGG*6090)	11	4.9	4.8	4.9	4.8	4.9	4.7	4.6	3.4	3.1
34	W13	Kinematics and Dynamics (ENGG*2340)	102	3.9	3.8	4.1	3.6	3.8	3.5	3.3	3.6	3.7
35	W13	Computer Aided Design and Manufacturing (ENGG*3120)	33	3.4	3.6	3.8	4.2	3.8	4.0	4.1	3.1	3.1
36	F12	Integrated Manufacturing Systems (ENGG*3070)	28	3.1	2.9	3.0	3.6	3.8	2.8	2.9	3.1	3.1
37	S12	Optimization Techniques (ENGG*6140)	8	4.7	4.7	4.7	4.7	4.6	4.3	4.1	3.4	3.1
38	W12	Computer Aided Design and Manufacturing (ENGG*3120)	8	4.3	4.0	3.8	4.8	4.5	4.0	3.8	2.8	3.0
39	W12	Kinematics and Dynamics (ENGG*2340)	94	4.5	4.5	4.5	4.3	4.2	4.2	3.9	3.5	3.2
40	S11	Optimization Techniques (ENGG*6140)	6	3.8	4.0	4.3	4.2	4.3	3.7	3.7	2.8	2.8
41	W11	Kinematics and Dynamics (ENGG*2340)	67	4.1	3.9	4.1	4.4	4.4	3.8	3.8	3.5	3.2
42	F10	Engineering Mechanics I (ENGG*1210)	164	3.8	3.8	3.6	3.7	3.7	2.9	2.9	3.8	3.5

43	W10	Engineering Mechanics I (ENGG*1210)	45	4.0	4.3	4.3	4.4	4.5	3.8	3.1	3.9	3.9

3.1.4 Sample Positive Comment in Course Evolutions – University of Guelph

Course	Sample of Positive Comments
ENGG*6290 – Computer Aided Design Fall-2023 All comments were positive	Abdullah Shah Quadri Syed: With a background in designing, I had a great experience learning the course. From the class modules to the level of instruction, everything was more than expected.
	Mitarth Umakant Panchal: It was a good experience
	Kavish Akshaykumar Shah: Very good professor and subject
	Nirav Patel: Great course for me as a mechanical engineer it is a practical course which can be implemented in real life. I have fun learning this course as well as interesting course.
	Ankit Suman: I got the opportunity of learning the software deeply and it helped me understand it fully.
	Jeet Sanjaybhai Patel: CAD is not my cup of tea before taking this subject but now i am able to draw and understand drawing. all thanks to professor who taught me in well methods and techniques. Even course outline and expertise of professor made this course more interesting and easy. thank you so much professor.
	Kaushalkumar Gunvantbhai Patel: Course outline is perfectly structured , which provides proficient learning of the CAD software along with theoretical and practical application of CAD software.
	Christopher Smuck: – Excellent course organization
	Abdullah Shah Quadri Syed: The professor is truly a master in designing. As I had experience in designing, I almost knew the content but there were a lot of things to learn which resulted in advancement in my designing skills. All thanks to the professor for always being there to clear my questions and teaching us so well that we have gained a lot of advanced knowledge of the software
	Mitarth Umakant Panchal: Very Supportive
	Kavish Akshaykumar Shah: Thank you sir, for taking this course
	Nirav Patel: Great and polite nature. Especially, that all time smiling face which gave us confidence to ask any single question without hesitation.
ENGG*2340 – Kinematics and Dynamics Winter-2023	Thomas Hunter: I thought that the course was well done and focused on making sure that students had a strong understanding of the content and could demonstrate this on tests and quizzes. The format of take–home assessments provided the opportunity to see whether students understood the content.
	Nicolas Bertolo: great set up for the course. diverse learning aspects to play to our strengths as students
	Kevin Barber: The course was very fair and covered all aspects stated in the course outline. The professor was clear and concise with the content covered. Overall, this course was run incredibly well, assignments gave me a chance to practice and refine the concepts introduced in class. The one small bit of feed back I can provide is the quiz's sometimes would take longer than expected and this lead to the next class overlapping in the final moments.
	Daniel Mounir Mekhael: Overwhelming course but the professor was great and had a different efficient way of teaching compared to other professors that have taught me before

Course	Sample of Positive Comments
	Gage Gonsalves: Prof Defersha is a very king hearted man that really loves what he teaches. The course itself is dry and hard to comprehend but he made it more enjoyable.
	Thomas Zupan: Decent course. Professor was passionate about our understanding. Assessments were fair but forced you to understand the content.
	Andrew Geist: The prof made it easy for me to succeed academically in the course despite the material being very content heavy and demanding.
	Benjamin Gerrits: The course material was very interesting and the evaluations were very fair and allowed me to apply and show what I learned in the course.
	Thomas Hunter: I think the prof for this course understands what resources students need in a course like this with subject matter that is more complex than a typical math class and wanted to make sure we succeeded.
	Nicolas Bertolo: very nice person. loved his teaching and loved his students.
	Griffin Miller: His energy and passion for the subject really shine through! Thank you Dr. Defersha!
	Dylan Cox: The course material that you provided and taught was amazing. From the quizzes, assignments, labs, and midterm have allowed me to have an amazing understanding of this material. The university is lucky to have a professor like yourself. Thank you for a great semester!
	Kevin Barber: Professor Defersha was an incredibly good professor. His lectures seemed confusing at first but then when attempting questions everything fell into place. The class is one of a hard nature but with the professors slides it becomes much easier. The professor was always available for office hours and willing to sit and explain questions or difficulties I had, this included going into depth on how I answered quiz or midterm problems. Overall I would say professor Defersha is an amazing professor who knows his content very well and is always available for help. If you do end up reading this you did an amazing job teaching this semester and it has been one of my most enjoyed classes.... hopefully this is anonymous
	Daniel Mounir Mekhael: Great professor special character. Different way of teaching. I enjoyed his course this semester
	Gage Gonsalves: He is a very kind–hearted and happy man
	Andrew Geist: Prof made a good effort to provide a inclusive learning environment, although his accent and lack of clarification made it hard for me to understand the concepts. He made up for this in other ways.
	Kaelyn Bellamy: Incredibly kind, but I think the material was presented in a bit of a confusing way in lecture. However, his presentation in office hours is much more cohesive and understandable. I think he really shines in one on one discussion and his office hours are so helpful. I think if the course content was presented in a way that was a bit more interactive, like maybe with fill in the blanks, or partly completed examples that become fully completed in lecture, it might help with understanding and engagement in lecture.
	Sukhpal Garcha: Thanks prof, your a cool dude and passionate about teaching
	Nicolas Miller: The instructor is a very nice person and really passionate about the course material, but his style of teaching really just doesn't work for me. I really could've used some assigned homework or textbook questions to practice the concepts taught in the lectures, and there was none assigned.
	Jonathan Aseerwatham: His accent made him difficult to understand a lot of the time which made this course a lot like a self study – but he was enthusiastic about it and did want to see students do well
	Benjamin Gerrits: Fantahun was a fantastic professor and he taught the content very well. He was very enthusiastic about the material and I could tell he wanted

Course	Sample of Positive Comments
	the class to learn so it made the class very enjoyable. He gave everything that was needed to do well in the course.
	Michael Van Dyke: Very nice man, although he is hard to understand and doesn't convey the information particularly well. Also trash teaching style and bad slides.
	Mariya Elson: Very knowledgeable, can talk too fast sometimes though
	Derek Gillett: Very nice and knowledgeable. Seems very passionate about the course and the content.
	Bartek Zdun: The lectures were taught very well. Even when topics were complicated, the many examples that the professor went through made it easy to understand.
ENGG*6290 – Computer Aided Design Winter-2023	Kuldeep Dipakkumar Gopani: Excellent
	Sohang Rakeshbh Patel: This very useful from the designing perspective and industrial applications
	Prerakkumar Mehta: Course is so helpful for jobs in future. As well as professor and TA are so good that they helped towards journey.
	Dhruv Sohit Muni: One of the most humble person and of a very helping nature. Created a perfect atmosphere for increasing the involvement in the course.
	Sohang Rakeshbh Patel: Class exercise and assignment helped a lot to learn the software.
	Vipul Patel: I really enjoyed learning with the professor, as I mentioned in the comments for the course, TA's involvement might take a different approach. Again these are my personal thoughts. Thank you for providing knowledge and opportunity to learn CAD.
	Prerakkumar Mehta: He is so good. And tried to make contact with all students.
ENGG*6290 – Production Planning and Control Winter-2023	Mitul Gohil: The depth of course is really good. Specification of course is outstanding.
	Mohammed Abdul Rafey Mohammed Abdul Rafey: The passion, interest and ability to explain the course material in simple terms by Prof Defersha made the course enjoyable and easy to grasp.
	Mitul Gohil: Professor is really well versed with the knowledge of the subject. The maturity expected from a masters course is up to mark.
ENGG*2340 – Kinematics and Dynamics Winter-2022	Andrew Bassili: The course was well taught. Assessments were fair and lectures went well
	Yuvraj Saini: The course outline was strucutrued perfectly. There is a great blend of assignments, quizzes, labs with an even distribution on many things which is favourable.
	Aidan Bogner: The course seemed very tough at first but the assignments and labs really helped me develop a thorough understanding of all the concepts.
	Emma Starratt: The course content was very interesting and I found that there was ample opportunity to apply what we learned in class.
	Emma Starratt: The course content was very interesting and I found that there was ample opportunity to apply what we learned in class.
	Francesco Filippone: Really did enjoy this class, I came to lectures everyday ready to learn something new and exciting.
	Mehul Saini: This course is very interesting
	Robin Horsfield: Great prof and got better as time went on.
	MacKenzie Taylor: The professor did a great job of giving a fair opportunity to show our understanding on difficult questions.
	Muhammad Mahsam: Wonderful professor that cares about the students, and makes the lectures livening with a happy mood.
	Andrew Bassili: Professor Defersha cared for his students and ensured that we were always paying attention. He wanted us to do well in this course. He knew

Course	Sample of Positive Comments
	it was a heavy and difficult course and that's why he was always open to answering questions and making additional zoom times.
	Yuvraj Saini: Professor Defersha is very caring and extremely nice. He wants his students to succeed and is very accomodating.The only issue I faced was sometimes I wouldn't understand the material becasue it was a bit fast paced at times. Overall, a very caring and intelligent Professor
	Aidan Bogner: Professor Defersha is one of the best professor's I've had so far. At first, he was hard to understand and follow along with but I was able to adjust to his accent, pace and teaching style fairly quickly. After that, I found myself very engaged in the lectures and able to clearly understand what he was explaining. He is extremely approachable, personable and always had the success of the class as his top priority. Near the end of the semester he started to make a few more subtle jokes and funny remarks about the content of the course, I encourage him to continue this as it kept me engaged and made the lectures very enjoyable to attend. Professor Defersha was always extremely thorough whenever he answered a question and always went the extra distance to ensure that he could explain the concept as best he could, often simplifying it into something that was very obvious to us. I have the upmost respect for Professor Defersha and would be extremely happy to have him as a professor again.
	Emma Starratt: Defersha was a great prof, he was very engaging and evidently enjoyed what he was teaching. The only point of improvement could be working on being able to explain things in more than one way. This class has been my favourite to attend this semester and has been a very positive experiece.
	Sean Donker: This guy is great
	Braeden Sears: Really seems to care about his students success, although the class was confusing he found a way to make it fun and I really appreciated that. He also did his best to help each student succeed on assessments.
	Francesco Filippone: Professor was always there after class to answer questions and answered them perfectly for my understanding. He is very understanding and just really enjoys teaching which is clearly displayed during his lectures. He is fun and engaging keeping students focused on the topics he is discussing. He wants everyone to do well and will do everything he can to make sure everyone succeeds. Amazing class overall.
	Troy Larmer: The content was difficult, and it was difficult wrapping my head around what I was being taught. Once I got around the learning curve I realized the content was being taught well.
	Mehul Saini: The instructor is a lovely person always there to support his students, encourages to take up challenging problems and gives hint to enhance learning experience. Would love to have Professor Deferesha again.
	Marcus Reuss: When going over the notes the class was a little hard to follow but the second you talk one on one Mr. Defersha clears up every question you have about a given subject
	Michael Brunetti: Kind and passionate professor, course slides were hard to understand when reviewing before lectures.
	Conall Gillett: You are a great instructor, but at times you just read the page. At times I found that I needed more to fully grasp the material at hand.
	MacKenzie Taylor: He was an engaging and wicked prof. Cannot complain, he wants to challenge his students and wants them to succeed.
	Ashwin Jai Ganesh: In the beginning, the course started out as very difficult to understand and almost non–comprhendable. But after the first assignments and quiz, I was able to learn the material very quickly and was finally able to understand what the professor was trying to teach us the whole time.
	Muhammad Mahsam: One of the Best professors.

Course	Sample of Positive Comments
ENGG*3120 Computer Aided Design and Manufacturing Winter-2021 (During COVID lockdown)	Lars Botter: I really liked the online format of this course; it worked well since it was all CAD. This course should adopt a fully online format going forward post-covid as well because having in class lectures and labs for SolidWorks content really doesnt make sense.
	John Poulsen: This course should 100% stay in an online (or mostly online) format after covid restrictions are lifted and things return to normal. The asynchronous lectures and labs are very helpful as opposed to having them in person. If something goes wrong in SolidWorks or I do something incorrectly, I can rewind or pause the video and fix things before I continue. This would not be possible in person and I think the quality of my learning experience using SolidWorks would have been significantly worse if it were not online.
	Devin Houston: Course structure is great for learning. Instructional videos provided to work at own pace are great.
	Madeleine Michaud: Video recordings were easy to follow and allowed me to get my work done at my own pace - I appreciated that the most about this
	Jasjeet Gill: The course was very nicely structured and taught
	Ibrahim Alatrach: The course was taught extremely well, the TA and professor were super helpful and supportive.
	George Soliman: amazing professor, TA,s and overall course structure. My favourite course i have taken so far
	Olivia Burdett: I believe that having posted videos that allowed me to go through the exercises and labs at my own pace was supper beneficial. I believe that in the future the course should follow this online format as it allows students to rewind the video when they miss a step or even reference a video when working on an assignment. It also allows student to restart if something goes wrong and the end product isn't preforming in the way it should.
	Ayodeji Abiodun: While this course is an insane amount of work, it is a 0.75 credit course and was very good for knowledge for our future careers.
	Thomas Bengert: The asynchronous learning method was very effective for this course.
	Cindy Seke: This course allowed me to deepen my understanding of SolidWorks modelling and strengthen my skillset for future careers.
ENGG*3070 – Integrated Manufacturing Systems Fall-2020	Raihana Said Amir: Great course and this instructor makes it interesting by bringing real life examples
	Karim Khafagy: I found the labs to be extremely useful. They provided a deeper understanding of the material. Especially because Arena has an animation component. It made the material in the lecture notes easier to understand through visualization and application. The assignments provided good practice for the midterms as well.
	Ahmed Soomro: This professor is an absolute GEM! He helps all of his students throughout the course!
	Erik Pitt: It was a good course and the professor was great. My only dislike was that there were a few labs that were not clearly stated in the course outline as to if they were running, and what the marking weight was. The professor did allow us extended time on these lab assignments which was appreciated. Overall, a good course, would recommend!
	Martin Peric: very nice course enjoyed the learning experience
ENGG*6090 – Production Planning and Control	Kunj Panchal: Good experience
	Lutfur Rahman: course materials were well organized and easy to understand

Course	Sample of Positive Comments
Fall-2020	Kunj Panchal: Excellent work by instructor
	Lutfur Rahman: Way to the teaching was excellent, as long as you concentrate in the class
ENGG*1210 Engineering Mechanics I Winter-2010 A total of 15 student provided comments and 11 of them were very positive as summarized here.	Great professor, really took the initiative to go through every detail
	Teacher was very helpful and encourage the students to learn
	Hard course, but the prof was very organized and helpful
	Instructor was good in understanding that the course load was a bit too much and tried to work around it
	Great teacher, hard course
	Great job teaching the course for your first time
	100 times better this semester, easier to understand concepts because they were well explained
	Awesome course
	Prof. Defersha was an excellent instructor, and made himself available for help outside of lecture hours, which greatly enhanced my learning for a difficult course.
	With the professor help, I was able to be successful.
	Very helpful and willing to help …
ENGG*2340 Kinematics and Dynamics Winter-2011 A total of 7 student provided comments and 4 of them were very positive as summarized here.	Fantahun is a great teacher and great at lectures. He really applies himself and gives a lot of effort in class for everyone to follow and understand.
	A great first run for a new course, Fantahun could do speak a little slower but he can be understood without much trouble. The professor makes for an interesting and engaging class.
	Great prof. Smart man, can explain things in detail when needed or simply if the topic is not difficulty. Fantahun Defersha is a great professor overall and is very dedicated to his course and students to ensure a better education and understanding.
	I really enjoyed the material in this course as well as the way the material was taught by the professor. This course did an excellent job of combining mechanical theory with practical applications in an intuitive and understandable manner. I learned much more from this course than I ever expected and it has made me very excited to expand on my studies of mechanical engineering.
ENGG*2340 Kinematics and Dynamics Winter-2012 A total of 21 student provided comments and 11 of them were very positive as summarized here.	Hard to understand your English sometime, but good other than that.
	By far one of my favourite professor, keeps course material relative and interesting while challenging students to understand instead of memorize.
	You are amazing teacher
	Fanta is an awesome prof. Very fair and explained everything very well, very enthusiastic and friendly.
	Professor is the best
	FANTA was great! Truly cares about his students and tries to make it easier!! FANTAstic.
	FANTAstic
	Amazing job; very enthusiastic – good; Always Enjoy his class; Learn a lot; Applicable material –good; Really encouraged learning – good; Always has a smile –good; Very fair; Great Prof
	Professor Defersha is one of the Kindest, most friendly people, I have ever crossed paths with, and his class is always interesting and very well structured.
	Great course. Professor actually cares about course and students. Slight language barrier which Fanta overcomes very effectively by repeating different topics. A+ proff.
	The professor takes his time going through course material. He is strong …

Course	Sample of Positive Comments
ENGG*3120 Computer Aided Design and Manufacturing. Winter-2012 Two student provided comments and, one was positive.	Great course! Loved every minute of it, came to as many classes as I could! Great Prof. really cares about the students success.
ENGG*3120 Computer Aided Design and Manufacturing. Winter-2013 Two student provided comments and, one was positive.	Fantahun Defersha. The prof was amazing, did a great job. Perfect environment for him to excel as a prof.
ENGG*6090 Simulation Analysis of Discrete Event Systems. Fall-2013 Four students provided comments and all of them were positive.	This is first time this course offered and I found the material and delivered lectures are very useful. He motivates students to work hard to get good grasp of course concept. He is very master in both programming language and the software used in the semester.
	He is an excellent professor. He knows a lot and help us to be the best.
	ENGG*6090 is a very good course. The best part of the course was that we were introduced to the latest modelling software. Assignments were well organized with practical problems, which helped us to get familiar with many new modelling techniques. Moreover, Dr. Defersha is very approachable and always looking forward to help the students.
	Professor Defersha is really one of the talented professors in university of Guelph. I get to learn lot of things from this course and I believe it is just because of him. I looked forward do some other course with him in future semesters.
ENGG*3120 Computer Aided Design and Manufacturing. Winter-2014 Six student provided comments and fore of them were very positive.	Fanta – Good job! Keep up the excitement about teaching
	Dr. Fantahun Defersha – He was a good at teaching!
	A little unorganized but a very practical and enjoyable course.
	DEFERSHA STICK TO TEACHING THIS CLASS.

3.2 Teaching Contribution at Concordia University

After I completed my PhD in May 2006 from Concordia University, I was hired by my PhD supervisor (Dr. Mingyuan Chen) as a Post-Doctoral/ Research Associate in the same university (May 2006 to December 2009). During this time, I taught five courses (for a total of 7 times) in the Department of Mechanical and Industrial Engineering at this university. The department was willing to offer me this much part-time teaching opportunity in that short period of time because of (1) my prior strong academic standing as a PhD student in the department as a result which I was awarded many scholarship (one of which was sub-titled: ***In Recognition of Superior Academic Achievement***), (2) the very impressive course evaluations in every course I was assigned to teach in this university, and (3) extensive teaching experience before starting my PhD.

3.2.1 Summary of Courses I taught in Concordia University

The courses I taught at Concordia University are listed below.

No.	Course Title	Year	Number of time s taught
1	Industrial Systems Simulation - INDU 311	2009	1
2	Operations Research II - INDU 324	2009	1
3	Advanced Operations Research - INDU 6121	2009	1
3	INDU 323 (Industrial Operations Research)	2008 and 2009	2
5	INDU 6211 (Production Systems and Inventory Control)	2006 and 2007	2
Total	NA	NA	7

3.2.2 Summary of Couse Evaluation (Concordia University)

The following table summarizes the course evaluations for the courses I taught at Concordia University. The complete copies of these course evaluations are given in Section 6.

Questions	Descriptions of questions	Year/Course No./Course Title					
		2009 INDU 311 (Industrial Systems Simulation)	**2009**-INDU 324/ INDU 6121 (Operations Research II/ Advanced Operations Research)	**2008** INDU 323 (Industrial Operations Research)	**2007** INDU 323 (Industrial Operations Research)	**2007** INDU 6211 (Production Systems and Inventory Control)	**2006** INDU 6211 (Production Systems and Inventory Control)
Q1	Overall, this course has been...	4.50	4.09	4.60	4.66	4.08	4.35
Q2	Overall, the instructor has been...	4.55	4.43	4.68	4.67	4.17	4.50
Q3	Overall, my learning has been...	4.35	4.06	4.33	4.55	4.08	4.27
Q4	Course outline and syllabus are clear, complete and well explained.	4.65	4.26	4.57	4.69	4.00	4.32
Q5	Course materials, text book or readings are useful or relevant.	4.40	4.35	4.47	4.55	4.08	4.44
Q6	I have found this course intellectually challenging and stimulating.	4.65	4.12	4.20	4.55	3.92	4.44
Q7	The course met the objectives as stated in the course outline.	4.55	4.00	4.53	4.67	4.00	4.40
Q8	Instructor demonstrates a comprehensive knowledge of the subject matter.	4.75	4.53	4.80	4.69	4.33	4.64
Q9	The instructor's explanations are clear.	4.35	4.41	4.33	4.45	4.00	4.16
Q10	The instructor provides feedback in the form of exams and/or assignment grading.	4.10	4.09	4.60	4.67	4.25	4.40
Q11	Students are encouraged to ask questions.	4.50	4.38	4.50	4.73	3.92	4.64
Q12	Students are encouraged to share their ideas and knowledge.	4.40	4.17	4.33	4.67	3.92	4.56
Q13	The instructor is approachable.	4.86	4.47	4.80	4.87	4.27	4.69

Note: 2009-INDU 324/ INDU 6121 (Operations Research II/ Advanced Operations Research) is a combined Undergrad and Grad Course

Type of Responses:

- **Q1 to Q4**: (5) Very good; (4) Good; (3) Fair; (2) Poor; (1) Very Poor

- **Q5 to Q13**: (5) Strongly Agree; (4) Agree; (3) Neither agree nor disagree; (2) Disagree; (1) Strongly disagree

Overall average in 13 questions over 6 courses = 4.41 out of 5

3.2.3 Sample Comment in Course Evolutions (Concordia University)

The following table summarizes the **positive** comments (full comments are provided as the Appendix) given by students in the evaluation of the course INDU 323 (Industrial Operations Research) that I taught at Concordia University in 2008.

No	Comment
1	Good
2	He is amazing, love the jokes
3	No comments. The instructor was productive and feedback was good, learned well from him.
4	Everything was fine.
5	Thanks a lot sir, very nice course, love you, a lot of interaction.
6	Ok
7	It is alright. I can't complain
8	None. He is a very good professor, approachable and understanding.
9	Very good.
10	Everything is good. Nice class.
11	Excellent instructor, I had very nice learning experience.
12	Perfect for a good atmosphere.
13	None, one of the best instructor, cares about his students.
14	You are an amazing teacher. Keep it up sir! A+A+
15	Ok
16	Very good
17	The professor knows his material perfectly, and teaches it in an interesting way.
18	The teacher was excellent. Explains very well. Very impressed with his method of teaching, very active.
19	Perfect, no complaints or suggestions.
20	Everything was great, do not change anything.
21	Excellent.
22	The professor is excellent. Keep him as long as possible.
23	Continue the same way
24	He has a great way of teaching. He makes the students get involved and get them interested.
25	As you can see from the evaluation. I couldn't stress more on how excellent this professor was. Excellent in teaching, very close to students, makes us feel that he is there whenever we need him. I don't mind taking all courses with him, and I hope he will be teaching other course. AMAZING PROFESSOR!!
26	Excellent professor the best so far. Wish he can give more undergraduate industrial engineering courses.
27	It is okay
28	This teacher is amazing. KEEP IT UP!
29	Proper
30	Excellent instructor would absolutely take other course with him. Very helpful and always in a good mood which motivates students. Thank you for everything.

3.3 Teaching Contribution at Addis Ababa University

I started my university level teaching career in Addis Ababa University, immediately after I graduate with B.Sc. Degree from this university in 1995. I worked in this university with the capacity of a graduate assistant (with teaching responsibility) from September 1995 to September 1996 and as an assistant lecturer from September 1996 to August 1998. In September 1998, I went to India to pursue a master degree in production and industrial systems engineering and returned to Addis Ababa University in January 2000 and continued to serve this university as a full lecturer till I came to Canada in August 2002 to peruse a PhD degree. During those time periods, I was also serving other two University as a par-time lecturer. In all the above appointments, I taught 12 different courses for a total of 25 times. These teaching contribution is summarised in the following section.

3.3.1 Summary of Courses I taught in Addis Ababa University

The table below summarizes the course I taught while I was an employ of Addis Ababa University

No.	Course Title	No of times taught
1	Industrial Management and Engineering Economy – MEng 515	2
2	Production Engineering I – MEng 409	2
3	Production Engineering II – MEng 410	2
4	Statistical Quality Control (**Bahir Dar University, part-time**)	2
5	Management Information Systems (**Bahir Dar University, part time**)	2
6	Tool and Die Design (**Defence Engineering College, part-time**)	1
7	Introduction to Probability and Statistics – Eeng 212	1
8	Descriptive Geometry and Technical Drawing - MEng 201	3
9	Machine Drawing I – MEng 204	2
10	Machine Drawing II – MEng 305	2
11	Strength of Material II – MEng 309	2
12	Engineering Mechanics II (Dynamics) – MEng 202	3
13	Engineering Mechanics IV (Vibration) – MEng 416	1
Total		25

3.3.2 Summary of Couse Evaluation (Addis Ababa University)

The following table summarizes the course evaluations for the courses I taught in Addis Ababa University. The complete copies of these course evaluations are given in Section 6.

Questions	Descriptions of questions	Sample course evaluation averages						
		MEng 515 - Industrial Management and Engineering Economy	MEng 202 – Engineering Mechanics II (Dynamics)	MEng 416 – Engineering mechanics IV (Vibration)	EE212 – Probability and statistics	MEng 409 – Production Technology I	ME 202 – Machine Drawing I	MED 235 – Machine Drawing
Q1	Clarification of the statement of general objectives of the course	4.83	4.84	4.79	4.67	4.72	4.71	4.71
Q2	Presentation and clarification of course plan and course outline	4.76	4.89	4.76	4.7	4.72	4.75	4.59
Q3	Clarification of the statement of specific objectives at the beginning of each chapter or unit	4.76	4.79	4.52	4.52	4.72	4.76	4.53
Q4	Instructor knowledge of the subject matter	4.73	4.81	4.54	4.47	4.64	4.76	4.75
Q5	Preparation of classes	4.90	4.95	4.76	4.76	4.72	4.57	4.59
Q6	Presentation of subject matter clearly in the language of instruction (English)	4.72	4.76	4.52	4.52	4.6	4.8	4.59
Q7	Presentation of subject matter	4.73	4.86	4.66	4.48	4.67	4.81	4.59
Q8	Willingness to encourage students to ask or answer questions in class	4.63	4.74	4.74	4.52	4.67	4.62	4.81
Q9	Willingness to let students express their options about the course in the classroom	4.73	4.75	4.61	4.35	4.64	4.6	4.59
Q10	Availability during consultation hours.	4.81	4.79	4.78	4.72	4.65	4.56	4.65
Q11	Punctuality for class	4.77	4.92	4.69	4.88	4.76	4.71	4.59
Q12	Meeting classes regularly (non-absenteeism)	4.82	4.95	4.86	4.76	4.68	4.75	4.65
Q13	Ability to arouse students interest and provoke their thinking	4.87	4.7	4.71	4.3	4.52	4.52	4.53
Q14	Ability to encourage student participation in the classroom	4.70	4.69	4.83	4.42	4.54	4.67	4.65
Q15	Appropriate use of available and relevant instructional materials (blackboard, maps, …)	4.83	4.66	4.69	4.5	4.72	4.43	4.71
Q16	Provide feedback on homework, tests and or assignments on time	4.83	4.4	4.64	4.4	4.46	4.55	4.76
Q17	Usefulness of homework and /or assignments for course work	4.87	4.5	4.54	4.28	4.6	4.55	4.76

Q18	Presence of questions in tests, exams, or homework that requires reasoning.	4.80	4.56	4.59	4.52	4.56	4.61	4.6
Q19	Amount of time allowed for test, assignments, or mid-semester exams	4.71	4.5	4.62	4.5	4.68	4.2	4.41
Q20	Coverage of course content in tests, or mid-term exams	4.83	4.69	4.59	4.67	4.67	4.53	4.59
Q21	Fairness in marking/grading	4.87	4.63	4.61	4.04	4.56	4.22	4.5
Q22	Clarification of methods of assessing students	4.84	4.48	4.64	4.43	4.67	4.5	4.76
Q23	Converge of content according course outline	4.81	4.62	4.55	4.59	4.4	4.59	4.5
Q24	Providing/giving a list of reference for the course	4.81	4.63	4.69	3.97	4.4	4.67	4.4
Q25	Use of class period for teaching or discussion of subject and related matters	4.74	4.86	4.81	4.67	4.84	4.63	4.5
Q26	Respect of students	4.85	4.92	4.85	4.84	4.88	4.63	4.63
Q27	Willingness to listen to a student's problem	4.88	4.72	4.74	4.69	4.8	4.61	4.5
Q28	Ability to maintain appropriate discipline in the class	4.81	4.84	4.71	4.75	4.71	4.47	4.56
Q29	Clarity of questions in tests, and or/midterm	4.77	4.57	4.71	4.48	4.44	4.56	4.5
Q30	Overall assessment of instructor's teaching effectiveness	4.77	4.83	4.68	4.73	4.6	4.74	4.69

Types of responses: (5) Very Good; (4) Good; (3) Fair; (2) Poor; (1) Very Poor

Overall Average in 30 questions over 7 courses = 4.66 out of 5

4 Graduate Studies

Since I joined the School of Engineering, I have been actively involved in the graduate program as graduate student advisor, co-advisor and member of advisory, qualifying examinations, and thesis defense committees. The following subsections provide the summaries of these contributions.

4.1 Graduate Student Advising/Co-Advising

No	Name of Student	Degree	Responsibility	Start Date	Completion Date
1	Mohammad Kaviyani-Charati	PhD	**Advisor**	Sept. 2023	In Progress
2	Danial Rooyani	PhD	**Advisor**	Jan. 2017	Apr. 2023
3	Seyedfarhad Shafigh	PhD	**Advisor**	Sep. 2021	Apr. 2015
4	Majed Alzahrani	PhD	**Advisor**	Sep. 2010	Withdraw because of health on April 2012
5	Ahmad Nase	PhD	**Co-Advisor**	Jan. 2021	Dec. 2023
6	Wisam Al-Wajidi	PhD	**Co-Advisor**	May 2024	Dec. 2019
7	Subhash Paul	PhD	**Co-Advisor**	Sep. 2013	Aug. 2017
8	Amin Amouzadeh	MASc	**Advisor**	May 2022	Apr. 2023
9	Ammar Sulaimani	MASc	**Advisor**	May 2021	Dec. 2022
10	Syeda Manjia Tahsien	MASc	**Advisor**	Sep. 2019	Dec. 2020
11	Dolapo Obimuyiwa	MASc	**Advisor**	Jan. 2019	Aug. 2020
12	Dhruv Pater	MASc	**Advisor**	Sep. 2018	Dec. 2019
13	Debela Tadele	MASc	**Advisor**	Sep. 2017	Dec. 2019
14	Mohammad Jalalian	MASc	**Advisor**	Jan. 2017	Aug. 2018
15	Hayson Ko	MASc	**Advisor**	Sep. 2016	Dec. 2017

No	Name of Student	Degree	Responsibility	Start Date	Completion Date
16	Fatemeh Mohebalizadehgashti	MASc	**Advisor**	Sep. 2014	Apr. 2016
17	Abenet Hodiya	MASc	**Advisor**	Sep. 2013	Apr. 2015
18	Saber Bayat-Movahed	MASc	**Advisor**	Sep. 2012	Apr.2014
19	Ananya Prajapti	MENG	**Advisor**	Jan. 2018	Jun. 2019
20	Kaushal Pandya	MENG	**Advisor**	May 2018	Dec. 2019
21	Krunal Prajapati	MENG	**Advisor**	Jan. 2018	Jun. 2019
22	Narinderpal Singh	MENG	**Advisor**	Mar. 2017	Aug. 2018
23	Aakash Miya	MENG	**Advisor**	Mar. 2017	Aug. 2018
24	Nishima Mehindru	MENG	**Advisor**	Jan. 2013	Apr. 2014

4.2 Research Associate Advising

No	Name of Student	Status	Responsibility	Start Date	Completion Date
1	Poritosh Roy (PhD)	Part-time	**Advisor**	Feb. 2018	May 2020
2	Mohammad Jalalian (MASc)	Part-time	**Advisor**	Dec. 2018	Jul. 2019
3	Abnet Hodiya (MASc)	Part-time	**Advisor**	May 2015	Aug. 2015

4.3 Graduate Advisory Committee

The following table lists the advisory committees I served in which **I am neither the advisory nor the co-advisory**. These services are for students advised or co-advised by other professors.

No	Name of Student	Degree	Responsibility	Status
1	Ehsan Pesaranhajiabbas	PhD	Member	In progress
2	Chong Liu	PhD	Member	Completed
3	Bottega Pergher, Bruno	PhD	Member	Completed
4	Mateo Gonzalez de Gortari	PhD	Member	Completed
5	Al-Doori, Shatha	PhD	Member	Completed
6	Mehari, Beraki	PhD	Member	Completed
7	Khalil, Mohamed	PhD	Member	Completed
8	Lashkari, Negin	PhD	Member	Completed
9	Shahriari, Mohammadali	PhD	Member	Completed
10	Acharya, Bima	PhD	Member	Completed
11	Vadori, Ryan	PhD	Member	Completed
12	Cai, Yifan	PhD	Member	Completed
13	Zarrinbakhsh, Nima	PhD	Member	Completed
14	Mary Hedrick	MSc	Member	Completed
15	Maisyn Picard	MSc	Member	Completed
16	Parmar Dilip	MSc	Member	Completed
17	Bikramjeet Singh	MSc	Member	Completed
18	Xie, Lin	MSc	Member	Completed
19	Aikenhead, Graham	MSc	Member	Completed
20	Parmar, Dilip, Status	MSc	Member	Completed
21	Sarthak Vasanth	MENG	Member	Completed
22	Farzana, Maisha	MENG	Member	Completed
23	Dong, Yingcai	MENG	Member	Completed
24	Wang, Xiaochuan	MENG	Member	Completed

No	Name of Student	Degree	Responsibility	Status
25	Yu, Xuefei	MENG	Member	Completed
26	Wessel, Pieter	MENG	Member	Completed

4.4 Qualifying Examinations Committee

I have been involved as PhD qualifying exam committee for a total of 33 PhD students. This assignment takes approximately 4.75 hours per each student as shown below:

- 15-minutes email communications
- Two 15-minute meetings with the student (total 30 minutes)
- 30-minutes for preparing exam questions
- 30-minutes for marking written part of the QE exam
- 180 minutes for oral examination and deliberation

I spent a total of total of 156.75 hours in these assignments. This is equivalent to the total lecture time of **4.35 graduate** courses. The list of students for whom I served as qualifying examiner is given in the table below.

No	Name of Student	Role	Subject Area	Exam Date
1	Debarshi Nath	Examiner	Design of Experiments	09-Nov-2023
2	Vahid Haseltalab	Examiner	Design of Experiments	25-Oct-2023
3	Beraki Mehari	Examiner	Design of Experiments	19-Aug-2020
4	Ahmad Naser	Examiner	Optimization Techniques	14-Dec-2023
5	Pesaranhajiabbas Ehsan	Examiner	Design of Experiments	30-Nov-2022
6	Kasra Ghasemi	Examiner	Design of Experiments	09-Sep-2022
7	Donatelli Justin	Examiner	Design of Experiments	19-May-2022
8	Mohammadi Rouzbahani Hossein	Examiner	Optimization Techniques	22-April-2021
9	Precious Arku	Examiner	Design of Experiments	24-Nov-2020
10	Mohamed Elhamahmy	Examiner	Design of Experiments	21-May-2020

No	Name of Student	Role	Subject Area	Exam Date
11	Mateo Gonzalez de Gortari	Examiner	Design of Experiments	5-Dec-2019
12	Subhash Paul QE	Examiner	Design of Experiments	27-Nov-2015
13	Danial Royani	Examiner	Design of Experiments	07-Nov-2019
14	Edwin Castilla Rodriguez	Examiner	Design of Experiments	25-July-2017
15	Yu Hou	Examiner	Design of Experiments	27-July-2017
16	Wisam Al-Wajidi	Examiner	Design of Experiments	15-Mar-2017
17	Abdelkrem Eltaggaz	Examiner	Design of Experiments	28-Feb-2027
18	Anand Gupta	Examiner	Design of Experiments	26-July-2016
19	Ghodsieh Mashouf	Examiner	Design of Experiments	26-Aug-2015
20	Ryan Vadori	Examiner	Design of Experiments	13-Mar-2015
21	Ronil Robari	Examiner	Design of Experiments	Summer 2014
22	Mohammad Tushar	Examiner	Design of Experiments	Summer 2014
23	Jenifer Spencer	Examiner	Design of Experiments	21-Jul-2014
24	Rajendran Muthuraj	Examiner	Design of Experiments	10-Mar-2014
25	David Wood	Examiner	Design of Experiments	10-Dec-2013
26	Farhad Shafigh	Examiner	Simulation of Discrete Event systems	18-Oct-2013
27	Poritosh Roy	Examiner	Design of Experiments	06-Aug-2013
28	Rakib Hossain	Examiner	Design of Experiments	02-Aug-2013
29	Vida Pour Sorh Abi Sharif Abad	Examiner	Design of Experiments	20-Feb-2013
30	Wei Zhang	Examiner	Optimization Techniques	15-Jan-2013
31	Yifan Cai	Examiner	Optimization Techniques	24-May-2012

No	Name of Student	Role	Subject Area	Exam Date
32	Nima Zarrinbakhsh	Examiner	Design of Experiments	07-Nov-2011
33	Muhammad Uzair	Examiner	Optimization Techniques	07-Sep-2011

4.5 Thesis Examination Committees

In the past 14 years, I have participated in thesis examinations for a total 26 students in which **I am not the advisory or the co-advisory**. These services are for students advised or co-advised by other professors. Out of the 26 examinations, six of them are outside University of Guelph where I was an external examiner both at a national and international levels.

4.5.1 Theis Examination in the school of Engineering

The following table lists the examination committees I served withing the school of engineering in which **I am neither the advisor not the co-advisory**.

No	Name of Student	Degree	Responsibility	Exam Date
1	Junfie Li	PhD	Chair	23-Aug-23
2	Carter Powell	MASc	Member	21-Aug-23
3	Timothy Mills	MASc	Chair	18-Aug-23
4	Zhe Xu	PhD	Chair	14-Apr-23
5	Mary (Mal) Hedrick	MASc	Member	15-Dec-20
6	Beraki Mehari	PhD	Chair	19-Aug-20
7	Maisyn Picard	MASC	Member	6-Aug-20
8	Philip De Boer	MASC	Chair	15-Aug-19
9	Alison Gowman	MASc	Member	2-Apr-19
10	Anand Gupta	PhD	Chair	11-Dec-18
11	Connor Cooper	MASc	Member	23-Aug-18
12	Dylan Jubinville	MASc	Member	13-Aug-18
13	Xuefei Yu	MEng	Member	26-May-14

No	Name of Student	Degree	Responsibility	Exam Date
14	Nima Zarrinbakhsh	PhD	Member	5-May-14
15	Pieter Wessel	MEng	Member	24-Apr-14
16	Cynthia Mason	MASc	Chair	30-Apr-13
17	Graham Aikenhead	MASc	Member	7-Jan-13
18	Lin Xie	MASc	Member	18-Apr-12
19	Dilip Parmar	MASc	Member	25-Mar-11
20	Aws Abu-Khudhair	MASc	Member	18-Oct-10

4.5.2 Thesis Examination Outside University of Guelph (External Examiner)

Once I was promoted to Associate Professor in 2015, I started serving as an external examiner in six occasions. The following table lists the occasions I served as an external examiner both at a national and international levels.

No	Name of Student	Degree	University	Responsibility	Exam Date
1	Amirreza Hooshyar Telegraphi	PhD	Concordia University, Montreal, Canada	External Examiner	23-Mar-2020
2	Alejandro Vital Soto	PhD	University of Windsor, Windsor, Canada	External Examiner	14-Jan-2019
3	Anubhuti Parajuli	PhD	Concordia University, Montreal, Canada	External Examiner	15-Oct-2018
4	Yichalew Goshimie	PhD	Addis Ababa University, Ethiopia	External Examiner	24-May-2022
5	Shimelis Tilahun	PhD	Addis Ababa University, Ethiopia	External Examiner	15-Jan-2021
6	Alie Wube Dametew	PhD	Addis Ababa University, Ethiopia	External Examiner	29-Jun-2020

5 Description of the New Courses I Developed in University of Guelph

In this section, the descriptions of the **four new courses I developed** in the University of Guelph are outlined. The descriptions provide course aims, learning objectives, graduate attributes, and lecture/lab schedule.

5.1 Kinematics and Dramatics (ENGG*2340)

In winter 2011, I started a new course, Kinematics and Dynamics-ENGG*2340. The calendar description was initially set-up by the School Engineering for the new mechanical engineering program. This calendar description covers topics form three different classical mechanical engineering courses: (i) Dynamics, (ii) Mechanism of Machinery, and (iii) Mechanical Vibration. Given such a wider breadth of coverage of subject matters, finding an appropriate textbook, deciding the level of coverage of the various topics, and the preparation of lecture material was challenging task. Moreover, at the time I was assigned this course, a 3-hour lab (for 12 weeks) was supposed to be conducted in Room THRN 1007 where there was not a single equipment and the construction of the room itself was not completed. To tackle this difficult situation, I developed about nine computer-based laboratory exercises. The lab exercises were based on (1) AutoCAD for graphical kinematic and dynamic analysis and (2) using MATLAB programming and Symbolic Toolbox for analytical kinematic and dynamic analysis of mechanism. Moreover, in these computer-based labs, I introduced the students with a new software called Working Model 2D for animation of mechanisms along with their kinematic and dynamic analysis. I was also involved in person in conducting the labs as the TAs were not quite formalized with this new course. In addition to the computer-based lab, I also set-up a physical lab with different experimental apparatus that were purchased during phase-1 of SOE expansion. These apparatuses include (1) Universal Vibration Analysis, (2) Gear Analysis, (3) Cam Analysis and (4) Dynamic Balancing. I taught this course for eight times.

5.1.1 Calendar Description

The course will cover kinematics and dynamic analysis including graphical and analytical methods for kinematics analysis of mechanisms and elementary body motion, static and dynamic force analyses of mechanisms, gyroscopic forces, dynamics of reciprocating/rotating machinery, cam and gear mechanisms and specifications. Vibration analysis will deal with free and forced vibration of underdamped lumped systems with millidegrees of freedom, analytical and numerical techniques of solution, viscous damping, vibration isolation, vibration measurement and control. Prerequisite(s): ENGG*2160

5.1.2 Course Aims

The course is aimed at introduction students the fundamentals of kinematics and dynamics analysis of mechanism.

5.1.3 Learning Objectives

At the successful completion of this course, the student will have demonstrated the ability to:

1. Understand motion generated by different types mechanisms

2. Construct displacement, velocity and acceleration vector diagrams and solve them graphically and analytically
3. Apply the concepts of displacement, velocity, and acceleration to solve mechanical problems
4. Analyse both static and dynamic forces on machine components
5. Analyze the Design of cams
6. Understand the fundamentals of gears and gear trains
7. Understand the dynamics of vibration and its isolation
8. Use MATLAB and Working Model 2D for kinematics and dynamics analysis of mechanisms.

5.1.4 Graduate Attributes

Successfully completing this course will contribute to the following CEAB Graduate Attributes:

Graduate Attribute	Learning Objectives	Assessment
1. Knowledge Base for Engineering	1	Assignment , Quizzes, Exams
2. Problem Analysis	2, 3, 4	Assignment , Quizzes, Exams
3. Investigation	3, 7	Assignment , Quizzes, Exams
4. Design	5, 6	Assignment , Quizzes, Exams
5. Use of Engineering Tools	8	Lab, Assignment
6. Communication		Assignment
7. Individual and Teamwork		
8. Professionalism		
9. Impact of Engineering on Society and the Environment		
10. Ethics and Equity		
11. Environment, Society, Business, & Project Management		
12. Life-Long Learning		

5.1.5 Lecture Schedule

Week	Lecture Topics	References	Learning Objectives
1	Revision of kinematics of rigid bodies from ENGG*1210	Lecture Slide	1, 2, 3
1, 2	Graphical and Vector Analysis of Relative Velocity	Chapter 2, Chapter 3, Lecture Note	1, 2, 3
3-5	Graphical and Vector Analysis of Relative Acceleration	Chapter 2, Chapter 3, Lecture Note	1, 2, 3
6	Complex Vector Analysis of planar mechanism	Chapter 4	1, 2, 3

Week	Lecture Topics	References	Learning Objectives
7	Dynamic Force Analysis	Lecture Note	4
8	Cam Analysis and Design	Chapter 7, Lecture Slide	5
9	Gears	Chapter 6	6
10	Gear Train	Chapter 7	6
11-12	Vibration analysis	Lecture Note	7

5.1.6 Lab Schedule

Week	Theme
3	Graphical Position and Velocity Analysis using AutoCAD
4	Graphical Acceleration Analysis using AutoCAD
5	Position and Velocity Analysis using AMATLAB
6	Complete Motion Analysis using AMATLAB
7	Introduction to Working Model 2D
8	Exercise on Working Model 2D
9	Experimental Dynamic Balancing
10	Experimental Cam Analysis
11	Experimental Vibration
12	Experimental Gear Analysis

5.2 Integrated Manufacturing Systems (ENGG*3070)

This is the second new undereducated course that I developed and started teaching in Fall-2012. In addition to preparing a new lecture material, I was leading the process of the acquisition, installation, and commissioning of an integrated manufacturing systems laboratory at the School of Engineering, University of Guelph. This system has CNC milling and turning machine tools, Robot, Gantry system, Conveyor, assembly station, computer aided inspection, and human-machine-interface system. I was also fully involved in conducting the lab by myself since it was difficult to find TAs with the required skill in operating this lab. In 2014, I developed a small-scale assembly cell that was used to provide a direct hand-on experience in automation and system integration to students taking this course. The enrollment number of this course grew from 28 students in Fall-2012 to more than 125 students in 2021. Because of curriculum changes in other programs (outside mechanical), the number of students enrolled in this course drops to 73 in 2022 where most of the students are from the mechanical engineering program. Given the fact that this is an elective course for the mechanical program, the enrollment size of 73 can be considered large as it represents more than 50% of mechanical engineering intake.

5.2.1 Calendar Description

Common production machines and manufacturing systems are dealt with, particularly automated systems, robotics, computer control and integration techniques, materials handling, inspection processes and process control. The course addresses societal and environmental issues related to manufacturing.

5.2.2 Course Aims

The course is aimed at introducing students with production automation and the role of the computer in modern manufacturing systems and providing understanding to the various topics in the operations of modern manufacturing systems. These include: automation and control technologies, material handling and identification technologies, single stations manufacturing cells, manual assembly lines, automated production lines, cellular manufacturing and group technology, flexible manufacturing systems, process planning and concurrent engineering, production planning and control systems, just-in-time and lean production, six-sigma, value stream mapping and process improvement.

5.2.3 Learning Objectives

At the successful completion of this course, the student will have demonstrated the ability to:

1. Identify the basic components of integrated manufacturing systems
2. Understand the fundamental of automation and control technologies in manufacturing
3. Develop Ladder Logic Programming,
4. Know the techniques how different components (machine tools, material handling, robots, inspection, storage) of a manufacturing system can be integrated
5. Understand the role of material handling systems(e.g. conveyors, automated guided vehicles), material storage and retrieval systems, automatic identification and data capture in integrated manufacturing systems
6. Understand the design criteria of single station manufacturer cells, assembly lines, cellular manufacturing, flexible manufacturing systems
7. Investigate performance issues in assembly and
8. Apply optimization techniques in the design and analysis of assembly and transfer lines, cellular manufacturing, automated guided vehicle and facility layout
9. Understand the fundamental of manufacturing support systems such as process planning, production planning and control, just-in-time and lean production.
10. Master the basic techniques of production and inventory control.
11. Develop simulation models for manufacturing systems

5.2.4 Graduate Attributes

Successfully completing this course will contribute to the following CEAB Graduate Attributes:

Graduate Attribute	Learning Objectives	Assessment
1. Knowledge Base for Engineering	8, 10	Assignment , Quizzes, Exams
2. Problem Analysis	3, 6, 7, 8, 10	Assignment , Quizzes, Exams
3. Investigation	6, 7, 11	Assignment , Quizzes, Exams

Graduate Attribute	Learning Objectives	Assessment
4. Design	6, 8	Assignment , Quizzes, Exams
5. Use of Engineering Tools	2, 8,11	Lab, Assignment
6. Communication		Assignment
7. Individual and Teamwork		
8. Professionalism		
9. Impact of Engineering on Society and the Environment		
10. Ethics and Equity		
11. Environment, Society, Business, & Project Management		
12. Life-Long Learning		

5.2.5 Lecture Schedule

Lecture	Lecture Topics	References	Learning Objectives
1, 2	**Introduction** • Automation in Production Systems • Manual Labor in Production Systems • Types Manufacturing Operations and Production Facilities • Basic Elements of Automation • Level of Automation • Components of Manufacturing Systems • Classification Scheme for Manufacturing Systems	Chapters 1, 2, 3, 4, 13	1
3, 4	**Discrete Control Using Programmable Logic Controller** • Discrete Process Control • Ladder Logic Diagrams • Programmable Logic Controller	Chapter 9	2, 3
5	**Single Station Manufacturing Cells** • Single Station Manned Cells • Single Station Automated Cells • Application of Single Station Cells	Chapter 14	1
6, 7	**Introduction to Optimization** • Fundamentals of linear programming • Modelling techniques • Introduction to LINGO	Other resources, lecture note	1, 5
8-12	**Manual and Automated Production and Assembly Lines** • Fundamental of Manual Assembly Lines		2, 3, 4

Lecture	Lecture Topics	References	Learning Objectives
	• Analysis of Single Model Assembly Lines • Line Balancing Algorithms • Mixed Model Assembly Lines • Fundamentals of Automated Production and Assembly Lines • Applications of Automated Production and Assembly Lines • Analysis of Transfer Lines and Assembly Systems		
13, 14, 15	**Cellular Manufacturing System** • Part families • Part Classification and Coding • Production Flow Analysis • Cellular Manufacturing • Application of Group Technology • Quantitative Analysis in Group Technology	Chapter 18, Other resources, lecture note	2, 3, 4
16, 17, 18	**Flexible Manufacturing Systems** • FMS Components • FMS Applications and Benefits • FMS Planning and Implementation Issues • Quantitative Analysis of Flexible Manufacturing Systems	Chapter 19, Other resources, lecture note	2, 3, 4
19, 20	**Introduction to Discrete Event Systems Simulation** • Fundamentals of Simulation • Time Advance Event Scheduling Algorithm • Basic Simulation Modeling	Other resources, lecture note	1, 5
21-24	**Material Handling and Storage Systems** • Introduction to Material Handling • Material Transport Equipment • Analysis of Material Transport Systems • Storage systems Performance and Locations Strategies • Conventional Storage and Methods and Equipment • Automated Storage Systems • Engineering Analysis of Storage Systems	Chapter 10, 11 and other resources	2, 3
25-36	**Manufacturing Support Systems** • Process Planning and inventory control • Just-in-time and Lean Production • Order Release • Flow Shop Sequencing • Job Shop Sequencing	Chapter 24, 25, 26 and other relevant resources, lecture notes	2, 3

Lecture	Lecture Topics	References	Learning Objectives
	• Six-sigma and value stream-mapping		

5.2.6 Lab Schedule

Topic	Date
Complete overview of Integrated Manufacturing Systems	Week 3
Ladder Logic Programming of Material Feeder (Group 1A, 2A, 3A)	Week 4
Ladder Logic Programming of Material Feeder (Group 1B, 2B, 3B)	Week 5
Feeder, Robot, Gantry Integration	Week 6
Simulation (Basic Processes)	Week 7
Simulation (Advanced Processes)	Week 8
Simulations (Transporter-I)	Week 9
Simulations (Transporter -II)	Week 10
Optimization (Assembly Line and Cellular Manufacturing)	Week 11
Optimization (AGV and Flexible Manufacturing)	Week 12

5.3 Computer Aided Design and Manufacturing (ENGG*3120)

This is the third new course that I developed and started offering in Winter-2012 and continued to offer it up to Winter 2021. In winter 2012 and winter 2013, I was also personally involved in conducting the lab for this course in addition to preparing the laboratory exercises. As per the initial calendar description when the new mechanical engineering program was proposed, the main coverage of this course is in the areas of solid modeling of parts and assembly and computer numerical control in machining. However, given the advancement of CAD/CAM software and early introduction of CAD/CAM in Design II ENGG*2100, these concepts do not require much effort from the students. To this end, I incorporated additional material to cover design aspect mechanical components and assemblies, such as stress analysis, thermal analysis, impact analysis, buckling analysis, and flow analysis. I also incorporated computer aided sheet metal part design and computer aided injection mold design. I developed a total of 27 class exercises (each one of them with multiple tasks) and 7 lab exercises. During COVID time, I developed a total of 80 video files detailing the class exercises and the labs. In 2022, all the video files, the class and lab exercise I developed over the years were transferred to Dr. Sheng Yang. He continued to use all the materials I developed and there was smooth transition from me to Dr. Yang. During the time Dr. Sheng Yang is in maternity leave (Winter 2024), I supported the sessional instructor by providing all my materials including 80 video files that were developed by me. The course has gained popularity starting from its early offering in 2012 and currently we are discussing to make it core course for the mechanical engineering program.

5.3.1 Calendar Description

The course presents the elements of solid modeling, creation of parts of increasing complexity and the assembly of parts to form a final design, along with mechanism simulation. The operation and programming of CNC machines is covered.

5.3.2 Course Aims

The course aims at exploring and understanding the area that is commonly referred to as CAD/CAM. The general objectives of the course are outlined in the following section.

5.3.3 Learning Objectives

At the successful completion of this course, the student will have demonstrated the ability to:

1. Model the 3-D geometric information of machine components including assemblies, and automatically generate 2-D production drawings,
2. Understand the basic analytical fundamentals that are used to create and manipulate geometric models in a computer program,
3. Visualize machine components and assemblies before their actual fabrication through modeling, animation, shading, rendering, lighting and coloring,
4. Model complex shapes including freeform curves and surfaces,
5. Understand the possible applications of the CAD/CAM systems in motion analysis, structure analysis, optimization, rapid prototyping, reverse engineering and virtual engineering,
6. Implement CNC programs for milling and turning machining operations,
7. Create a computer aided manufacturing (CAM) model and generate the machining codes automatically using the CAM system,
8. Integrate CAD and CAM systems by using the CAD system for modeling design information and converting the CAD model into a CAM model for modeling the manufacturing information,
9. Use full-scale CAD/CAM software systems designed for geometric modeling of machine components and automatic generation of manufacturing information.

5.3.4 Graduate Attributes

Successfully completing this course will contribute to the following CEAB Graduate Attributes:

Graduate Attribute	Learning Objectives	Assessment
1. Knowledge Base for Engineering	2	Assignment , Project, Exams
2. Problem Analysis	5	Assignment , Project, Exams
3. Investigation	5	Assignment , Project, Exams
4. Design	3,4, 5	Assignment , Project, Exams
5. Use of Engineering Tools	1, 3, 4,7, 8, 9	Assignment , Project, Exams
6. Communication	1	Assignment , Project, Exams
7. Individual and Teamwork		
8. Professionalism		
9. Impact of Engineering on Society and the Environment		
10. Ethics and Equity		
11. Environment, Society, Business, & Project Management		
12. Life-Long Learning		

5.3.5 Lecture Schedule

This course is mainly delivered using practical exercises during the lecture and the lab in a computer room. As such the lecture and the lab are continuum and very integrated. The exercises cover:

- Drawing, editing and modifying sketches
- Adding Relations and dimensions to sketches
- Creating reference geometries
- Creating, editing and modifying features
- Advanced part modeling (with complex geometries)
- Assembly modeling
- Working with drawings, views, dimensions and tolerances.
- Sheet metal design
- Mold Design
- Introduction to geometric modeling (parametric curves, surfaces and solids)
- Coordinate transformations (translation, rotation, scaling, reflection)
- Surface Modeling
- Simulation using Finite Element Method (stress and deformation analysis)
- Motion and mechanism simulation
- Introduction to numerical control machines and part programming
- Creation of tool path and automatic generation of part programming using CAM system
- Several advanced CAD/CAM applications will be covered as time permits

5.3.6 Lab Schedule

Topic	Date
Part/ Assembly Modeling	Week 2
Part/ Assembly Modeling	Week 3
Part/ Assembly Modeling	Week 4
Stress/thermal/flow Analysis	Week 5
Stress/thermal/flow Analysis	Week 6
Stress/thermal/flow Analysis	Week 7
Motion Analysis	Week 8
Sheet Metal/Weldment/Surface modeling	Week 9
Sheet Metal/Weldment/Surface modeling	Week 10
MasterCAM	Week 11
MasterCAM	Week 12
Laboratory attendance and activities will be graded at the end each lab section.	

5.4 Simulation Analysis of Discrete Event Systems - ENGG*6380

This is a new graduate course that I developed in Fall-2013. I offered this course in Fall-2013, Fall-2019 and Fall-2021. A total of 38 graduate students completed this course in three offerings. I will also be teaching this course for the fourth time in Fall-2024 as it is listed in my 2024-2025 DOE.

5.4.1 Course Aims

Many complex engineering, operations, and business systems can be modeled as discrete-event systems. These include multi-teller banks; computer networks; automated manufacturing systems; hospital emergency rooms; call center; airport terminals; traffic control systems and so on. In order to efficiently manage and operate these systems, it is often necessary to apply simulation to study their performance since no closed-form analytical solutions exist for such problems. This course deals with this category of systems. On completion of this course, successful students should be able to demonstrate an understanding of principles and methodologies, of discrete event simulation. Also, they will be able to develop simulation models using a general purpose programming language (such as C++) and ARENA Simulation Environment.

5.4.2 Learning Objectives

At the successful completion of this course, the student will have demonstrated the ability to:

1. Describe the role of important elements of simulation and modeling paradigm.
2. Analyze discrete-event systems and design simulation models.
3. Develop and apply appropriate random number and random variable generation techniques;
4. Analyze, model, and select appropriate input distributions of discrete-event systems
5. Apply appropriate simulation statistical output techniques.
6. Use general purposed pogromming language and simulation package for discrete-event systems simulation modelling and analysis.

5.4.3 Course Topics and Schedule

Topic	Contents	Nominal Weeks
General Principles	Concepts in Discrete-Event Simulation; The Event Scheduling/Time Advance Algorithm; World Views; Manual Simulation Using Event Scheduling; List Processing; Lists: Basic Properties and Operations;	1-3
Statistical Models in Simulation	Review of Terminology and Concepts; Useful Statistical Models; Discrete Distributions; Continuous Distributions; Poisson Process; Properties of a Poisson Process; Non-stationary Poisson Process; Empirical Distributions	4

Topic	Contents	Nominal Weeks
Queuing Models	Characteristics of Queuing Systems; The Calling Population; System Capacity; The Arrival Process; Queue Behavior and Queue Discipline; Service Times and the Service Mechanism; Queuing Notation; Long-Run Measures of Performance of Queuing Systems; Steady-State Behavior of Infinite-Population Markovian Models; Single-Server Queues with Poisson Arrivals and Unlimited Capacity: M/G/1; Multiserver Queue: M/M/c/∞/∞; Multiserver Queues with Poisson Arrivals and Limited Capacity: M/M/c/N/**∞;** Steady-State Behavior of Finite-Population Models (M/M/c/K/K); Networks of Queues	5-6
Random Number Generation	Properties of Random Numbers; Generation of Pseudo-Random Numbers; Techniques for Generating Random Numbers; Linear Congruential Method; Combined Linear Congruential Generators; Random-Number Streams; Tests for Random Numbers; Frequency Tests; Tests for Autocorrelation.	7-8
Random-Variate Generation	Inverse-Transform Technique; Exponential Distribution; Uniform Distribution; Weibull Distribution; Triangular Distribution; Empirical Continuous Distributions; Continuous Distributions without a Closed-Form Inverse; Discrete Distributions; Acceptance—Rejection Technique; Poisson Distribution; Nonstationary Poisson Process; Gamma Distribution; Special Properties; Direct Transformation for the Normal and Lognormal Distributions; Convolution Method.	8-9
Input Modeling	Data Collection; Identifying the Distribution with Data; Histograms; Selecting the Family of Distributions; Quantile-Quantile Plot; Parameter Estimation; Preliminary Statistics: Sample Mean and Sample Variance; Suggested Estimators; Goodness-of-Fit Tests; Chi-Square Test; Chi-Square Test with Equal Probabilities; Kolmogorov—Smirnov Goodness-of-Fit Test; *p*-Values and "Best Fits"; Fitting a Nonstationary Poisson Process; Selecting Input Models without Data; Multivariate and Time-Series Input Models; Covariance and Correlation; Multivariate Input Models; Time-Series Input Models; The Normal-to-Anything Transformation	10-11
Output Analysis	Types of Simulations with Respect to Output Analysis; Stochastic Nature of Output Data; Measures of Performance and Their	11-12

Topic	Contents	Nominal Weeks
	Estimation; Point Estimation; Confidence-Interval Estimation; Output Analysis for Terminating Simulations;	

5.4.4 Lab Schedule (evaluated during lab time)

Week	Topic
2	Simulation with Spreadsheet and basic modelling using ARENA
3	Time-Advance Event Scheduling algorithm in C++
5	Intermediate Modelling using ARENA
7	Advanced Modelling using ARENA
9	Advanced Modelling using ARENA
10	Input and Output Analysis using ARENA

5.5 Production Planning and Control (ENGG*6290)

This is third new graduate course I developed offered in Winter 2026, Fall 2020 and Winter 2023. A total of 32 graduate students successfully completed this course in three offerings. The course deals with integrated production planning and control. Models for inventory control, determination of order quantities and safety stocks, and various deterministic and probabilistic inventory replenishment systems are discussed in depth. It also covers model development for demand forecasting, materials requirements planning and manufacturing resource planning (MRP/MRPII), lot sizing, dispatching, and scheduling. Supply chain management, Just-in-Time systems, lean and Agile manufacturing are also introduced in this course. Because of the relevance of the course in Engineering Management, the course is now listed as required course for the newly proposed SOE-LANG joint master's program in Engineering Management. If the new program is approved, this course will be offered with a course number ENGG*6280. The conversion process of this course from special topic to regular course has been already initiated and currently it is under review.

5.5.1 Calendar Description

The course deals with integrated production planning and control. Models for inventory control, determination of order quantities and safety stocks, and various deterministic and probabilistic inventory replenishment systems are discussed in depth. It also covers model development for demand forecasting, materials requirements planning and manufacturing resource planning (MRP/MRPII), lot sizing,

dispatching, and scheduling. Supply chain management, Just-in-Time systems, lean and Agile manufacturing are also introduced in this course.

5.5.2 Learning Objectives

By the end of this course, students should be able to:

1. Describe the importance of inventory management and production planning and scheduling in manufacturing industries.
2. Describe (write) the frameworks for inventory management and production planning and scheduling.
3. Develop qualitative and quantitative forecasting techniques that can be used in short, medium, and long-range forecasting of production requirements.
4. Develop quantitative models to manage individual items inventory when demand is (a) approximately level, (b) varying over time in a deterministic way, or (c) probabilistic.
5. Develop quantitative models to manage inventory when ordering/production of multiple items need to be coordinated in several stocking points.
6. Develop master production schedules (MPSs) and perform rough-cut capacity planning to determine if the MPSs are realizable.
7. Develop material requirements plans (MRP) and manufacturing resource plans (MRP-II) and capacity requirements plans (CRP) as part of resource requirements planning systems.
8. Understand and apply the underlying concepts and methods in Just-in-Time production and Optimized Production Technology
9. Understand and develop short-range production scheduling for a single machine and for a general job shop environment.

5.5.3 University of Guelph – Graduate Degree Learning Outcomes

Successfully completing this course will contribute to the following:

Outcome	Learning Objectives
Literacy	1, 2, 3, 5, 7, 9
Quantitative Literacy	3, 5, 7, 9
Technological Literacy	1, 2, 9
Communication Skills	1, 2
Oral Communication	1, 2
Written Communication	2
Reading Comprehension	1, 2
Professional and Ethical Behaviour	3, 5, 7
Intellectual Independence	3, 5, 7
Critical and Creative Thinking	3, 5, 7, 9
Independent Inquiry and Analysis	3, 5, 7, 9
Problem Solving	3, 5, 7, 9
Creativity	3, 5, 7, 9
Depth and Breadth of Understanding	3, 5, 7, 9

5.5.4 Course Topics and Schedule

Topic	Contents	Nominal Weeks
Introduction	The importance of production planning and control in modern industries, general overview of production planning and control models.	Week 1
Managing Individual-Item Inventories	• Order Quantities When Demand is Approximately Level • Lot Sizing for Individual Items with Time-Varying Demand • Individual Items with Probabilistic Demand	Weeks 1, 2, 3, 4
Multiple Items and Multiple Locations Inventory System	• Coordinated Replenishments at a Single Stocking Point • Supply Chain Management and Multi-echelon Inventories	Weeks 5, 6
Forecasting	• The Components of Time-Series Analysis • Individual-Item, Short-Term Forecasting: Models and Procedures • Measuring the Performance of a Forecasting Process • Demand management	Weeks 7, 8
Production Planning and Scheduling	• Medium-Range Aggregate Production Planning • Material Requirements Planning and its Extensions • Just-in-Time and Optimized Production Technology • Short-Range Production Scheduling	Weeks 8, 9, 10, 11

5.6 Desing of Experiments (ENGG*6090)

Many of our graduate students have experimental components in their research. As evidence, out of a total of 33 occasions in which I served in PhD qualifying examinations, 27 of them are in experimental design. I was also requested by some colleagues to develop a course on Design of Experiments. As a result, a of these facts, I developed this new graduate course in Fall 2017 in SOE and offered it for a total of three times in which 34 students completed the course. This course introduces the principles of experimental design and the techniques of analysis of variance in a manner that emphasizes it engineering applications such as material science, manufacturing process, measurement, and chemical processing.

5.6.1 Calendar Description

This course introduces the principles of experimental design and the techniques of analysis of variance in a manner that emphasizes it engineering applications such as material science, manufacturing process, measurement, and chemical processing.

5.6.2 Learning Objectives

By the end of this course, students should be able to:

1. Increase the breadth and depth of knowledge in the statistical analysis of data.
2. Design and conduct experiments efficiently and effectively and analyze the resulting data to obtain objective conclusions.
3. Analyse data using statistical software.

5.6.3 University of Guelph – Graduate Degree Learning Outcomes

Successfully completing this course will contribute to the following:

Graduate Attribute	Learning Objectives
Literacy	2, 3
Quantitative Literacy	3
Technological Literacy	3
Critical and Creative Thinking	1, 2
Independent Inquiry and Analysis	2
Depth and Breadth of Understanding	1

5.6.4 Course Topics and Schedule

Topic	Contents	Nominal Weeks
Introduction	Busic Principles, Guidelines for Design of Experiments	1
Simple Comparative experiments	Basic statistical concepts, Sampling and sample distributions, Inference about the difference in mean (Randomized design), Paired comparison design, Inference about the variances of normal distribution	1-3

Topic	Contents	Nominal Weeks
Experiments with a Single Factor: The Analysis of Variance	The analysis of variance, analysis of the fixed effects model, model adequacy checking, Practical interpretation of results, Determining sample size	3-4
Randomized blocks, Latin Squares	The randomized complete block design; The Latin square design, The Graeco-Latin square design; Balanced incomplete block design	5-6
Factorial Designs	Basic principles and definitions; The two-factor factorial design; The general factorial design	7-8
The 2K Factorial Design	The 2^2 design; The 2^3 design; The general 2^k design; A single replication of the 2^k design	9-10
Fitting Regression Models	Linear regression models; Estimation of parameters in linear regression models; Hypothesis testing in multiple regression models	11
Response Surface Methods and Designs	Introduction to Response Surface Method; The method of steepest assent; Analysis of second order response surfaces.	11-12

5.7 Computer Aided Design (ENGG*6290)

As a result of the success of ENGG*3120 (Computer aided design and Manufacturing) which I developed from scratch and offered for many years, I was having a desire to develop a related course to graduate students for quite some time. As a coincidence, in Fall 2022, I was approached by the graduate program of the School of Engineering to develop and offer a CAD course to the MENG students. I took that opportunity to develop this graduate course and taught it in Winter 2023, Fall 2023 and Winter 2024 as overloads. A total of 64 MENG graduate students successfully completed this course in these three offerings. As a result of this strong enrollment, I initiated the process of converting this special topic course to a regular course under a new course number ENGG*6430. The conversion process is currently under review.

5.7.1 Calendar Description

The course presents solid modeling of parts with increasing complexity and their assembly to form a final design. The simulation analysis of components and assemblies will be also covered in the course. The course also presents the underlying mathematics of geometric modeling of curves and surfaces.

5.7.2 Learning Outcomes

By the end of this course, you should be able to:

1. Model the 3D geometric information of machine components including assemblies, and automatically generate 2D production drawings.
2. Understand the basic analytical fundamentals that are used to create and manipulate geometric models in a computer program.
3. Visualize machine components and assemblies before their actual fabrication through modeling, animation, shading, rendering, lighting, and coloring.
4. Model complex shapes including freeform curves and surfaces.
5. Understand the possible applications of the CAD/CAM systems in motion analysis, structure analysis, optimization, rapid prototyping, reverse engineering, and virtual engineering.

5.7.3 Graduate Attributes

Successfully completing this course will contribute to the following CEAB Graduate Attributes:

Graduate Attribute	Learning Objectives
Literacy	1, 2, 3, 4, 5
Quantitative Literacy	1, 2, 3, 4, 5
Technological Literacy	1, 2, 3, 4, 5
Critical and Creative Thinking	1, 2, 3, 4, 5
Independent Inquiry and Analysis	5
Problem solving	1, 2, 3, 4, 5
Creativity	5
Depth and Breadth of Understanding	1, 2, 3, 4, 5

5.7.4 Course Topics and Schedule

Topic	Contents	Nominal Weeks
Geometric Modeling	Mathematical modeling of curves and surfaces	1-5
Part Modelling	Drawing, editing, and modifying sketches; Adding Relations and dimensions to sketches; Creating reference geometries; Creating, editing, and modifying features	1-3
Advanced Part Modeling	Surface modeling, sheet metal modeling, weldment, mold design	4-5
Assembly Desing	Mating and constraints; Top-down design; Assembly using Layout;	6

Topic	Contents	Nominal Weeks
Motion Analysis	Animation; Basic Motion; Motion Analysis; P	7, 8
Simulation	Stress analysis, thermal analysis, buckling, drop test	9
Virtual Machining	Introduction to CNC; G-codes; Automating G-code generation and Virtual Machining	10-11

6 Copies of Course Evaluations (Concordia and Addis Ababa University)

As the school of engineering has copies of the student evaluation for the courses I taught in SOE, I presented here the copies of the course evaluations only for courses I taught in Concordia University and Addis Ababa University.

6.1 Course Evaluations (Concordia University)

2009 INDU 311 (Industrial Systems Simulation)

Print | Notes | Back

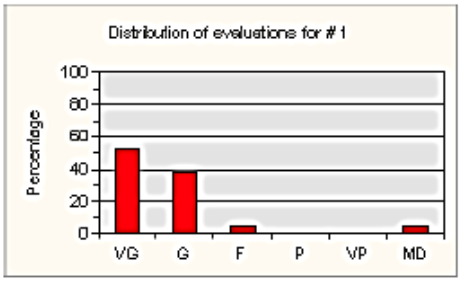
Concordia University Course Evaluation Report

CUPFA

PROF: FANTAHUN MELAKU DEFERSHA **DEPT:** MECHANICAL & INDUSTRIAL ENGINEERING **COURSE:** INDU 311 **SECTION:** T **YEAR:** 2009 **TERM:** 2F

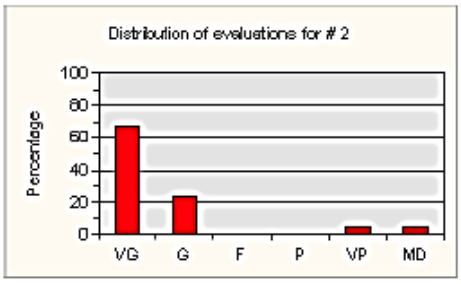
NUMBER OF EVALUATIONS: 1
NUMBER OF STUDENTS: 46
STUDENTS RESPONDING: 21
PERCENTAGE OF STUDENTS RESPONDING: 45.65%

1. Overall, this course has been...						
Median:	1					
Assessment:	Well above average					
Student	VG	G	F	P	VP	MD
Responses:	11	8	1	0	0	1



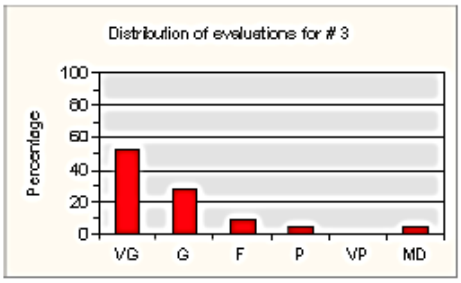
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

2. Overall, the instructor has been...						
Median:	1					
Assessment:	Well above average					
Student	VG	G	F	P	VP	MD
Responses:	14	5	0	0	1	1



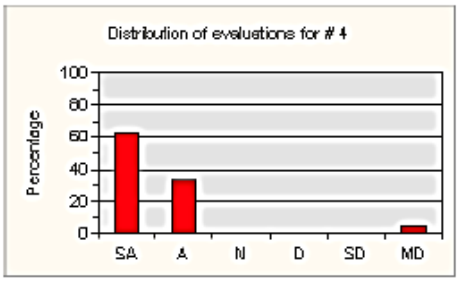
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

3. Overall, my learning has been...						
Median:	1					
Assessment:	Well above average					
Student	VG	G	F	P	VP	MD
Responses:	11	6	2	1	0	1



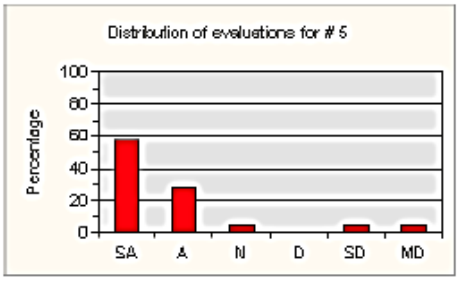
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

4. Course outline and syllabus are clear, complete and well explained.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	13	7	0	0	0	1



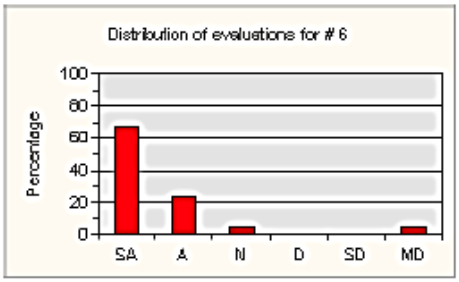
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

5. Course materials, text book or readings are useful or relevant.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	12	6	1	0	1	1



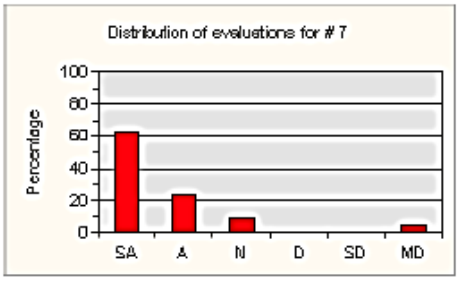
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

6. I have found this course intellectually challenging and stimulating.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	14	5	1	0	0	1



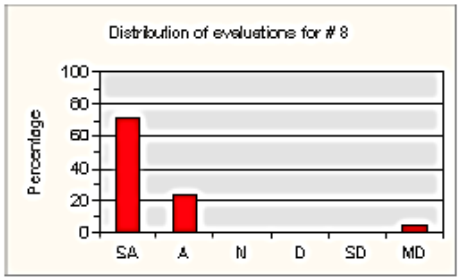
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

7. The course met the objectives as stated in the course outline.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	13	5	2	0	0	1



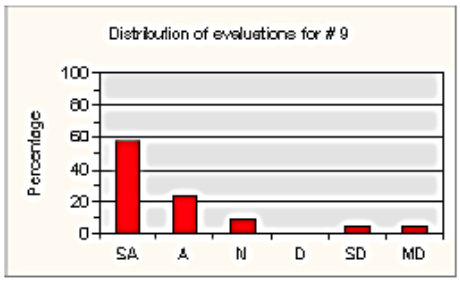
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

8. Instructor demonstrates a comprehensive knowledge of the subject matter.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	15	5	0	0	0	1



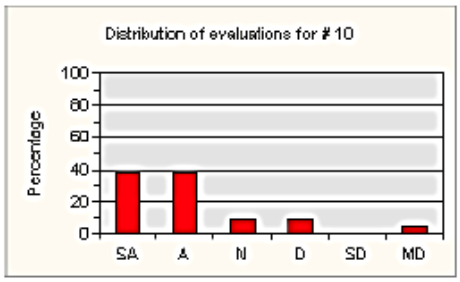
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

9. The instructor's explanations are clear.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	12	5	2	0	1	1



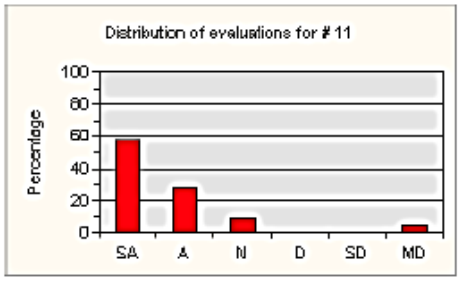
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

10. The instructor provides feedback in the form of exams and/or assignment grading.						
Median:	2					
Assessment:	Above average					
Student Responses:	SA	A	N	D	SD	MD
	8	8	2	2	0	1



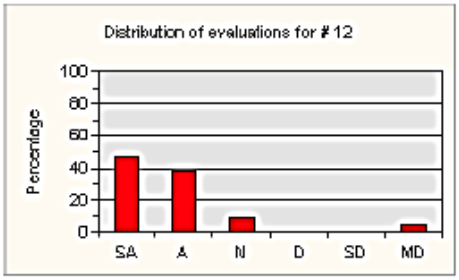
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

11. Students are encouraged to ask questions.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	12	6	2	0	0	1



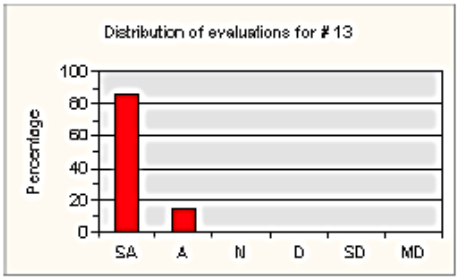
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

12. Students are encouraged to share their ideas and knowledge.						
Median:	1.5					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	10	8	2	0	0	1



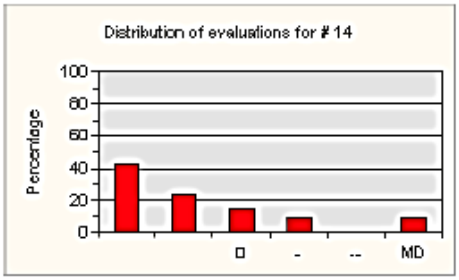
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

13. The instructor is approachable.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	18	3	0	0	0	0



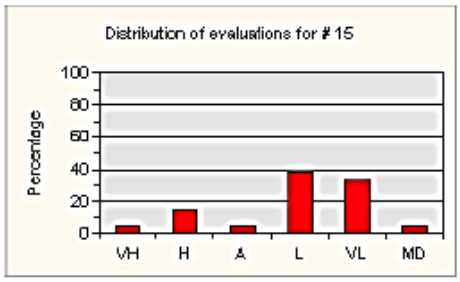
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

14. Overall, my involvement in this course has been...						
Median:	2					
Assessment:	Above average					
Student	++	+	±	-	--	MD
Responses:	9	5	3	2	0	2



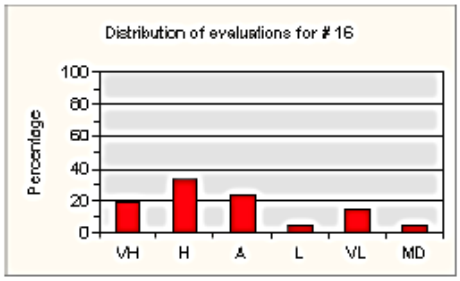
++=Well-Above Average, +=Above Average, ±=Average, -=Below Average, --=Well-Below Average, MD=Missing Data

15. What was your level of knowledge of the subject prior to taking this course?						
Median:	4					
Assessment:	Well below average					
Student	VH	H	A	L	VL	MD
Responses:	1	3	1	8	7	1



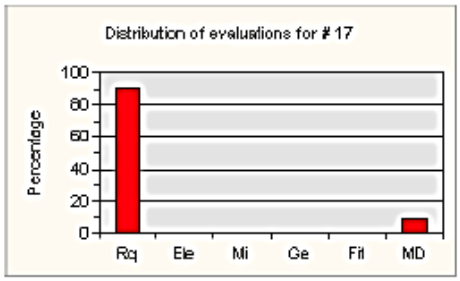
VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

16. What was your level of interest in the subject prior to taking this course?						
Median:	2					
Assessment:	Above average					
Student	VH	H	A	L	VL	MD
Responses:	4	7	5	1	3	1



VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

17. What was your reason for taking the course?						
Median:	1					
Assessment:	Well above average					
Student	Rq	Ele	Mi	Ge	Fit	MD
Responses:	19	0	0	0	0	2



Rq=Required for Major or Specialization, Ele=Elective for Major or Specialization, Mi=Elective or Minor, Ge=General Interest, Fit=Fit into Schedule, MD=Missing Data

LEGEND:

The term 'N/A' stands for 'Not Applicable'
The term 'MD' stands for 'Missing Data'

STATISTICS:

The total number students participating in the evaluations and the total number of classes used in the comparisons for this particular report are listed in the following table:

TOTALS	DEPARTMENT		FACULTY	
	Current Semester	All	Current Semester	All

# of Classes	10	393	41	2178
# of Participants	320	10630	1380	68239

NOTES:

1. The numbers quoted are actual numbers of respondents.

- For more detailed information please click on this link: Centre for Teaching & Learning Services (CTLS).
- Scanned version of the Questionnaire Forms are also available at the CTLS website.
- To print this page click here

Note: *Please use the **"Print Preview"** function in your browser to ensure the full contents will be printed. You may need to change the page setup (in your browser options) or even change the default values for the **margins** in order for the contents to fit within the page. Also, in order to print the charts properly, you need to activate the **"Print background colors and images"** option. The option is accessible via the Advanced tab from the Internet Options in Microsoft Internet Explorer.*

Return to top

Copyright © 2001-2014, Concordia University
Send comments and questions to FCMS-Support

2009-INDU 324/ INDU 6121 (Operations Research II/ Advanced Operations Research)

Print | Notes | Back

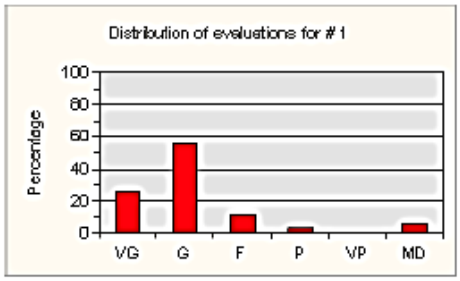
Concordia University Course Evaluation Report

CUPFA

PROF: FANTAHUN MELAKU DEFERSHA **DEPT:** MECHANICAL & INDUSTRIAL ENGINEERING **COURSE:** INDU 324 **SECTION:** TT **YEAR:** 2009 **TERM:** 2F

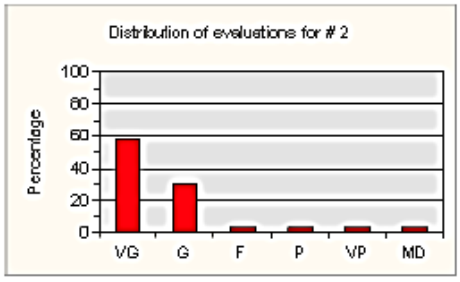
NUMBER OF EVALUATIONS: 1
NUMBER OF STUDENTS: 67
STUDENTS RESPONDING: 36
PERCENTAGE OF STUDENTS RESPONDING: 53.73%

1. Overall, this course has been...						
Median:	2					
Assessment:	Above average					
Student	VG	G	F	P	VP	MD
Responses:	9	20	4	1	0	2



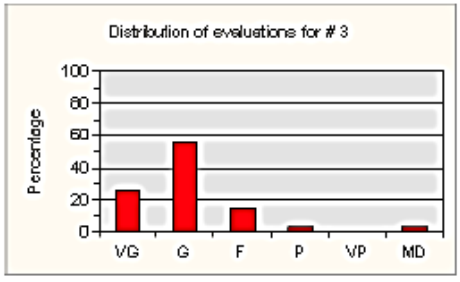
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

2. Overall, the instructor has been...						
Median:	1					
Assessment:	Well above average					
Student	VG	G	F	P	VP	MD
Responses:	21	11	1	1	1	1



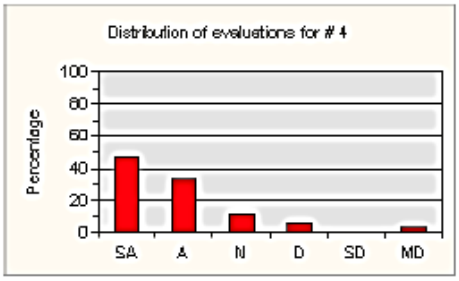
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

3. Overall, my learning has been...						
Median:	2					
Assessment:	Above average					
Student	VG	G	F	P	VP	MD
Responses:	9	20	5	1	0	1



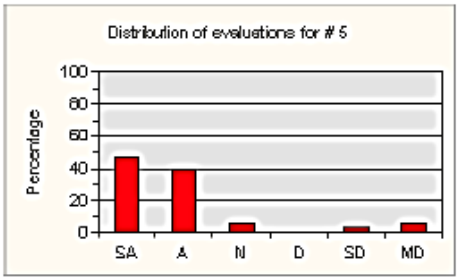
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

4. Course outline and syllabus are clear, complete and well explained.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	17	12	4	2	0	1



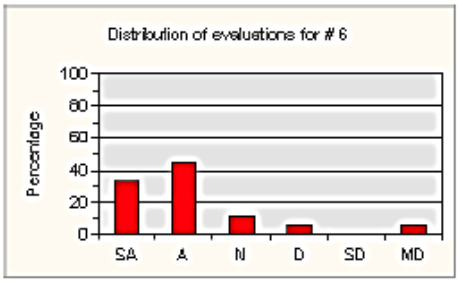
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

5. Course materials, text book or readings are useful or relevant.						
Median:	1.5					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	17	14	2	0	1	2



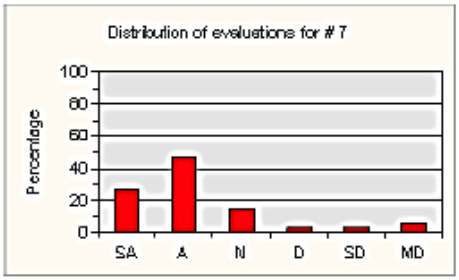
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

6. I have found this course intellectually challenging and stimulating.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	12	16	4	2	0	2



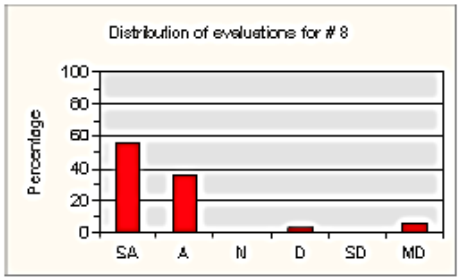
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

7. The course met the objectives as stated in the course outline.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	10	17	5	1	1	2



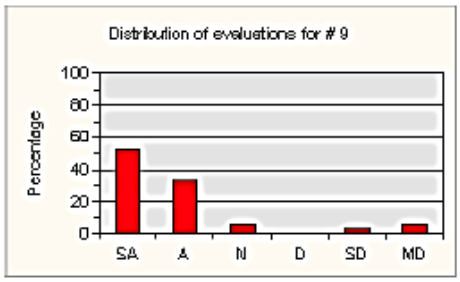
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

8. Instructor demonstrates a comprehensive knowledge of the subject matter.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	20	13	0	1	0	2



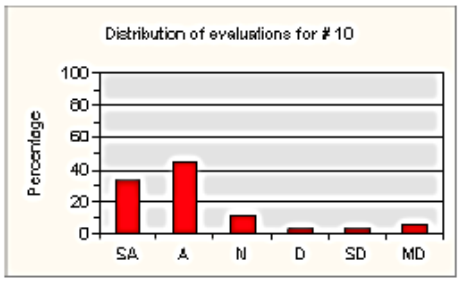
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

9. The instructor's explanations are clear.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	19	12	2	0	1	2



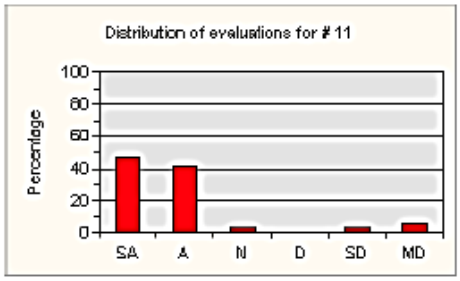
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

10. The instructor provides feedback in the form of exams and/or assignment grading.						
Median:	2					
Assessment:	Above average					
Student Responses:	SA	A	N	D	SD	MD
	12	16	4	1	1	2



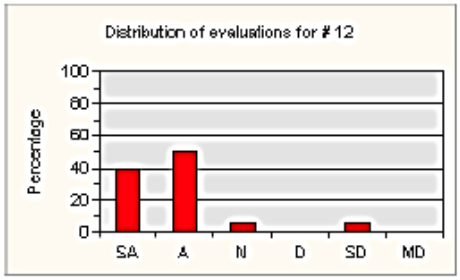
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

11. Students are encouraged to ask questions.						
Median:	1.5					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	17	15	1	0	1	2



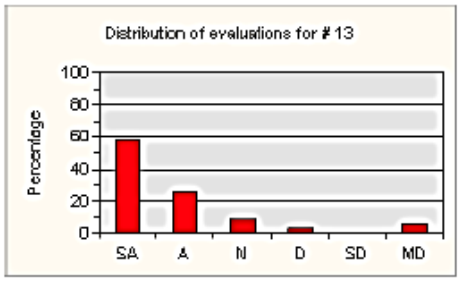
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

12. Students are encouraged to share their ideas and knowledge.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	14	18	2	0	2	0



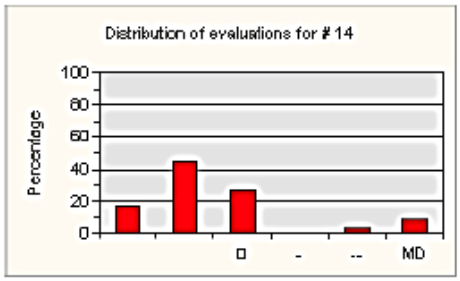
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

13. The instructor is approachable.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	21	9	3	1	0	2



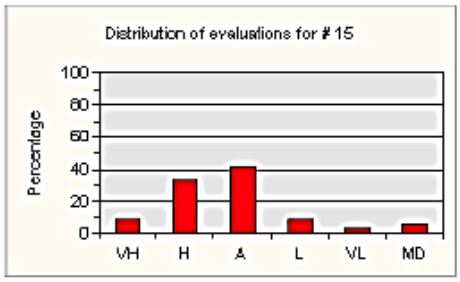
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

14. Overall, my involvement in this course has been...						
Median:	2					
Assessment:	Above average					
Student	++	+	±	-	--	MD
Responses:	6	16	10	0	1	3



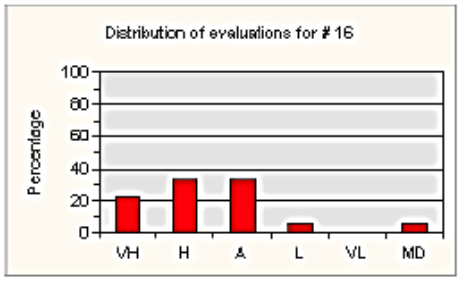
++=Well-Above Average, +=Above Average, ±=Average, -=Below Average, --=Well-Below Average, MD=Missing Data

15. What was your level of knowledge of the subject prior to taking this course?						
Median:	3					
Assessment:	Average					
Student	VH	H	A	L	VL	MD
Responses:	3	12	15	3	1	2



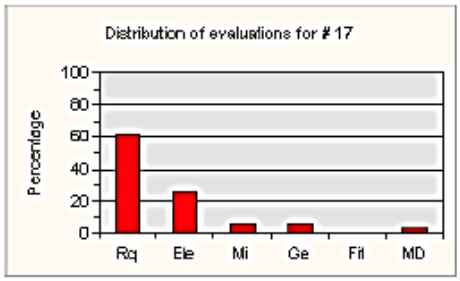
VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

16. What was your level of interest in the subject prior to taking this course?						
Median:	2					
Assessment:	Above average					
Student	VH	H	A	L	VL	MD
Responses:	8	12	12	2	0	2



VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

17. What was your reason for taking the course?						
Median:	1					
Assessment:	Well above average					
Student	Rq	Ele	Mi	Ge	Fit	MD
Responses:	22	9	2	2	0	1



Rq=Required for Major or Specialization, Ele=Elective for Major or Specialization, Mi=Elective or Minor, Ge=General Interest, Fit=Fit into Schedule, MD=Missing Data

LEGEND:

The term 'N/A' stands for 'Not Applicable'
The term 'MD' stands for 'Missing Data'

STATISTICS:

The total number students participating in the evaluations and the total number of classes used in the comparisons for this particular report are listed in the following table:

TOTALS	DEPARTMENT		FACULTY	
	Current Semester	All	Current Semester	All

# of Classes	10	393	41	2178
# of Participants	320	10630	1380	68239

NOTES:

1. The numbers quoted are actual numbers of respondents.

- For more detailed information please click on this link: Centre for Teaching & Learning Services (CTLS).
- Scanned version of the Questionnaire Forms are also available at the CTLS website.
- To print this page click here

Note: *Please use the **"Print Preview"** function in your browser to ensure the full contents will be printed. You may need to change the page setup (in your browser options) or even change the default values for the **margins** in order for the contents to fit within the page. Also, in order to print the charts properly, you need to activate the **"Print background colors and images"** option. The option is accessible via the Advanced tab from the Internet Options in Microsoft Internet Explorer.*

Return to top

Copyright © 2001-2014, Concordia University
Send comments and questions to FCMS-Support

Couse Evaluation for INDU 323 (Industrial Operations Research), Concordia University

Year: 2008

Print | Notes | Back

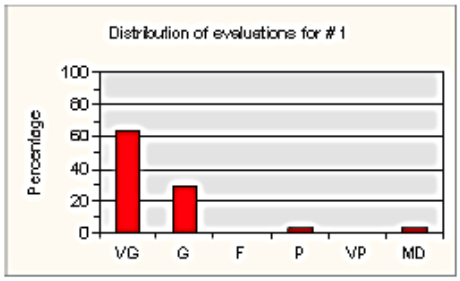
Concordia University Course Evaluation Report

CUPFA

PROF: FANTAHUN MELAKU DEFERSHA **DEPT:** MECHANICAL & INDUSTRIAL ENGINEERING **COURSE:** INDU 323 **SECTION:** X **YEAR:** 2008 **TERM:** 4W

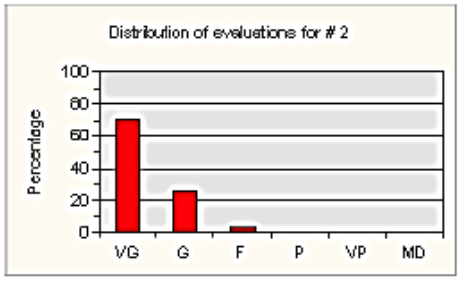
NUMBER OF EVALUATIONS: 1
NUMBER OF STUDENTS: 39
STUDENTS RESPONDING: 31
PERCENTAGE OF STUDENTS RESPONDING: 79.49%

1. Overall, this course has been...						
Median:	1					
Assessment:	Well above average					
Student Responses:	VG	G	F	P	VP	MD
	20	9	0	1	0	1



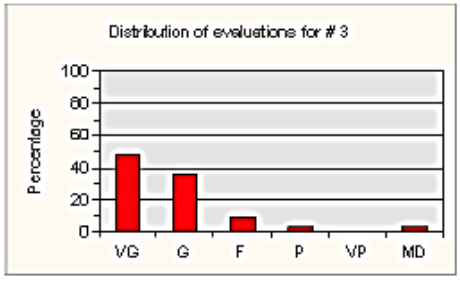
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

2. Overall, the instructor has been...						
Median:	1					
Assessment:	Well above average					
Student Responses:	VG	G	F	P	VP	MD
	22	8	1	0	0	0



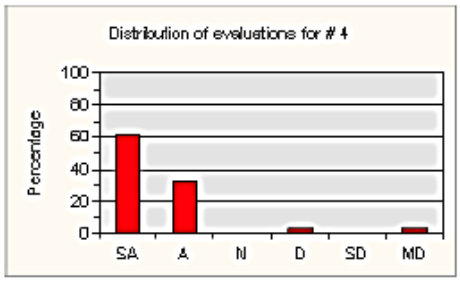
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

3. Overall, my learning has been...						
Median:	1.5					
Assessment:	Well above average					
Student Responses:	VG	G	F	P	VP	MD
	15	11	3	1	0	1



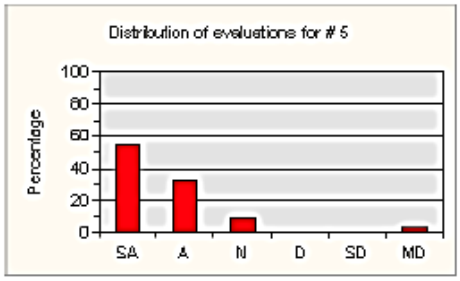
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

4. Course outline and syllabus are clear, complete and well explained.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	19	10	0	1	0	1



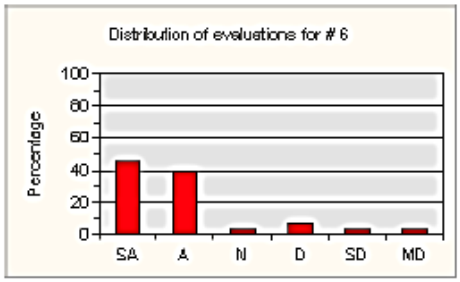
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

5. Course materials, text book or readings are useful or relevant.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	17	10	3	0	0	1



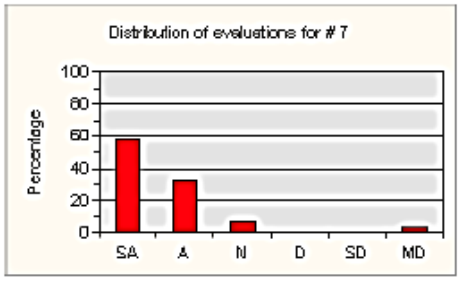
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

6. I have found this course intellectually challenging and stimulating.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	14	12	1	2	1	1



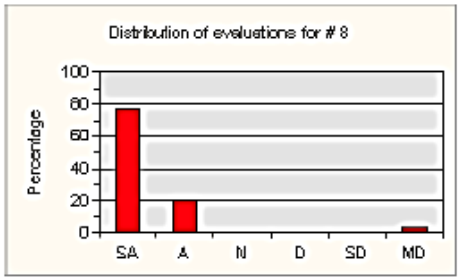
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

7. The course met the objectives as stated in the course outline.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	18	10	2	0	0	1



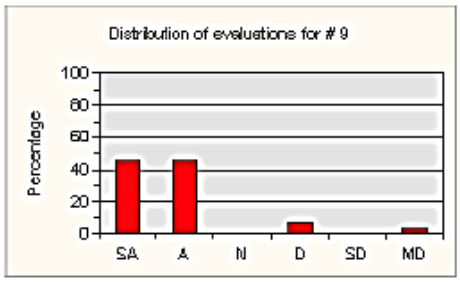
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

8. Instructor demonstrates a comprehensive knowledge of the subject matter.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	24	6	0	0	0	1



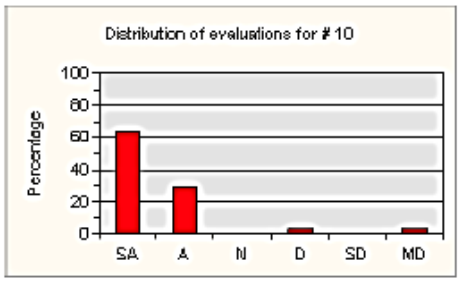
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

9. The instructor's explanations are clear.						
Median:	2					
Assessment:	Above average					
Student Responses:	SA	A	N	D	SD	MD
	14	14	0	2	0	1



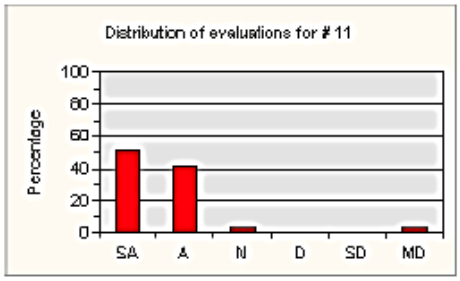
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

10. The instructor provides feedback in the form of exams and/or assignment grading.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	20	9	0	1	0	1



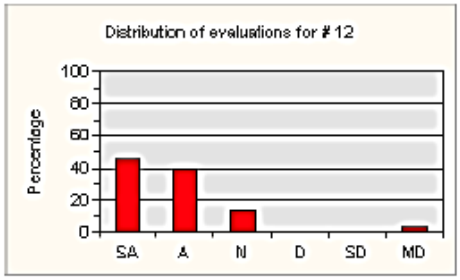
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

11. Students are encouraged to ask questions.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	16	13	1	0	0	1



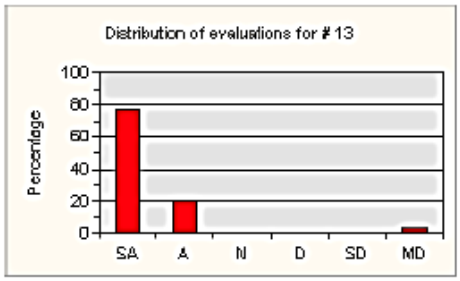
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

12. Students are encouraged to share their ideas and knowledge.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	14	12	4	0	0	1



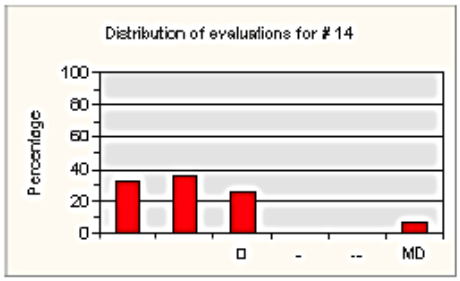
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

13. The instructor is approachable.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	24	6	0	0	0	1



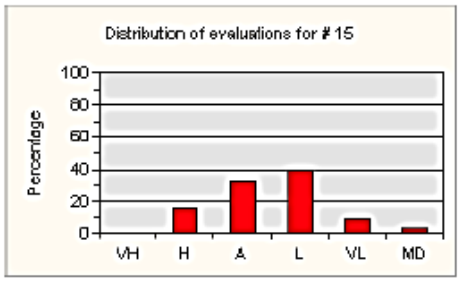
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

14. Overall, my involvement in this course has been...						
Median:	2					
Assessment:	Above average					
Student	++	+	±	-	--	MD
Responses:	10	11	8	0	0	2



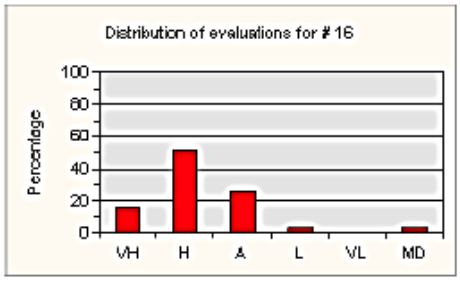
++=Well-Above Average, +=Above Average, ±=Average, -=Below Average, --=Well-Below Average, MD=Missing Data

15. What was your level of knowledge of the subject prior to taking this course?						
Median:	3.5					
Assessment:	Below average					
Student	VH	H	A	L	VL	MD
Responses:	0	5	10	12	3	1



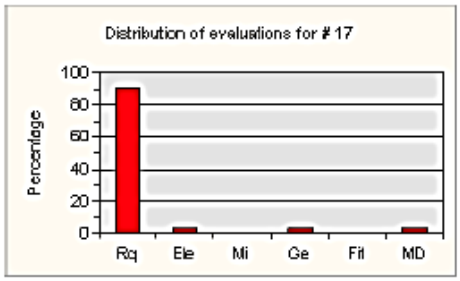
VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

16. What was your level of interest in the subject prior to taking this course?						
Median:	2					
Assessment:	Above average					
Student	VH	H	A	L	VL	MD
Responses:	5	16	8	1	0	1



VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

17. What was your reason for taking the course?						
Median:	1					
Assessment:	Well above average					
Student	Rq	Ele	Mi	Ge	Fit	MD
Responses:	28	1	0	1	0	1



Rq=Required for Major or Specialization, Ele=Elective for Major or Specialization, Mi=Elective or Minor, Ge=General Interest, Fit=Fit into Schedule, MD=Missing Data

LEGEND:

The term 'N/A' stands for 'Not Applicable'
The term 'MD' stands for 'Missing Data'

STATISTICS:

The total number students participating in the evaluations and the total number of classes used in the comparisons for this particular report are listed in the following table:

TOTALS	DEPARTMENT		FACULTY	
	Current Semester	All	Current Semester	All

# of Classes	14	393	44	2178
# of Participants	477	10630	1660	68239

NOTES:

1. The numbers quoted are actual numbers of respondents.

- For more detailed information please click on this link: Centre for Teaching & Learning Services (CTLS).
- Scanned version of the Questionnaire Forms are also available at the CTLS website.
- To print this page click here

Note: *Please use the **"Print Preview"** function in your browser to ensure the full contents will be printed. You may need to change the page setup (in your browser options) or even change the default values for the **margins** in order for the contents to fit within the page. Also, in order to print the charts properly, you need to activate the **"Print background colors and images"** option. The option is accessible via the Advanced tab from the Internet Options in Microsoft Internet Explorer.*

Return to top

Copyright © 2001-2014, Concordia University
Send comments and questions to FCMS-Support

Course Evaluation for INDU 323 (Industrial Operations Research)

Year: 2007

Print | Notes | Back

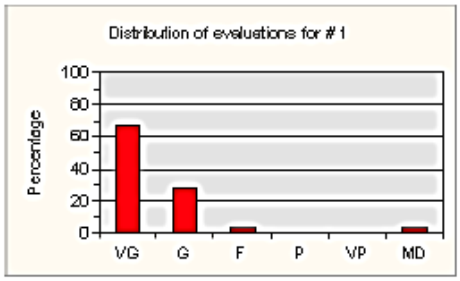
Concordia University Course Evaluation Report

CUPFA

PROF: FANTAHUN MELAKU DEFERSHA **DEPT:** MECHANICAL & INDUSTRIAL ENGINEERING **COURSE:** INDU 323 **SECTION:** X **YEAR:** 2007 **TERM:** 4W

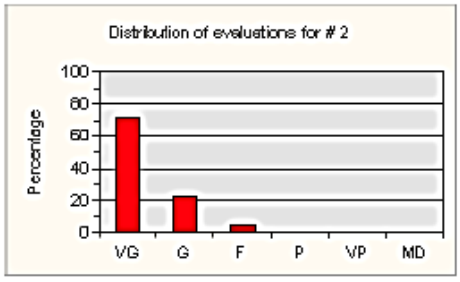
NUMBER OF EVALUATIONS: 1
NUMBER OF STUDENTS: 57
STUDENTS RESPONDING: 39
PERCENTAGE OF STUDENTS RESPONDING: 68.42%

1. Overall, this course has been...						
Median:	1					
Assessment:	Well above average					
Student Responses:	VG	G	F	P	VP	MD
	26	11	1	0	0	1



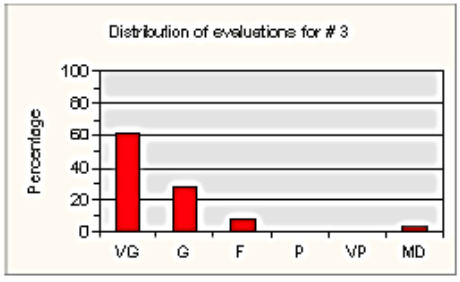
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

2. Overall, the instructor has been...						
Median:	1					
Assessment:	Well above average					
Student Responses:	VG	G	F	P	VP	MD
	28	9	2	0	0	0



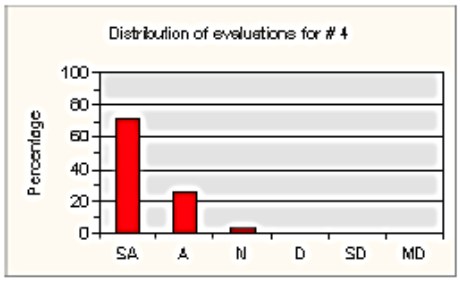
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

3. Overall, my learning has been...						
Median:	1					
Assessment:	Well above average					
Student Responses:	VG	G	F	P	VP	MD
	24	11	3	0	0	1



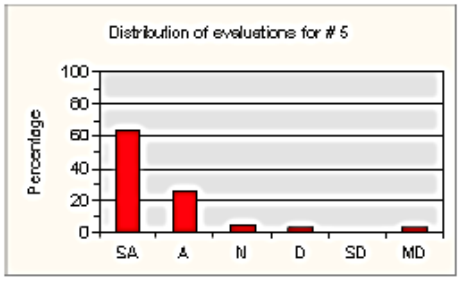
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

4. Course outline and syllabus are clear, complete and well explained.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	28	10	1	0	0	0



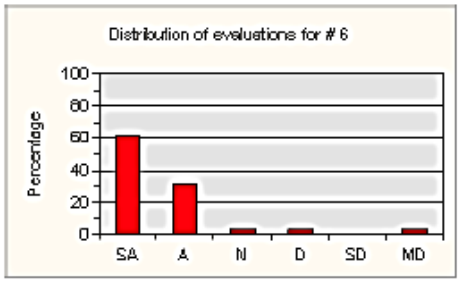
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

5. Course materials, text book or readings are useful or relevant.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	25	10	2	1	0	1



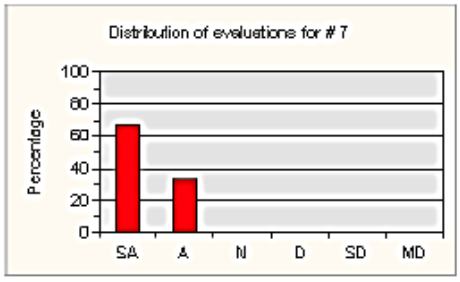
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

6. I have found this course intellectually challenging and stimulating.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	24	12	1	1	0	1



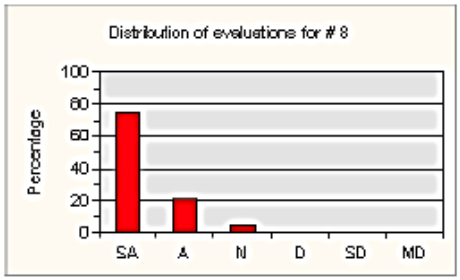
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

7. The course met the objectives as stated in the course outline.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	26	13	0	0	0	0



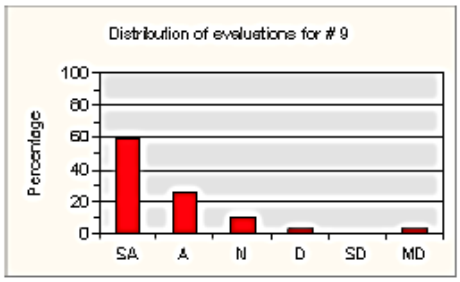
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

8. Instructor demonstrates a comprehensive knowledge of the subject matter.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	29	8	2	0	0	0



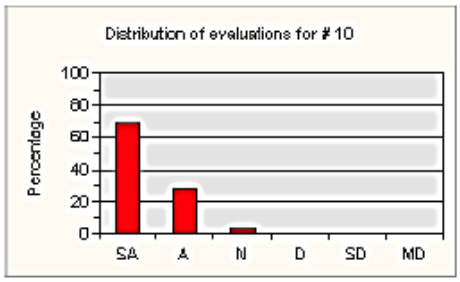
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

9. The instructor's explanations are clear.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	23	10	4	1	0	1



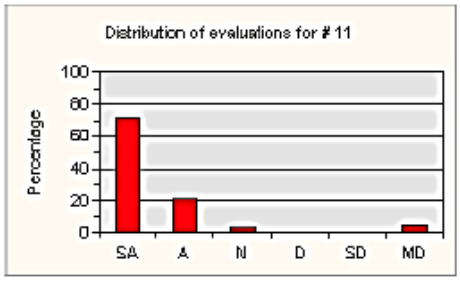
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

10. The instructor provides feedback in the form of exams and/or assignment grading.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	27	11	1	0	0	0



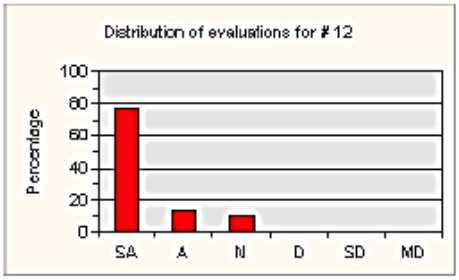
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

11. Students are encouraged to ask questions.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	28	8	1	0	0	2



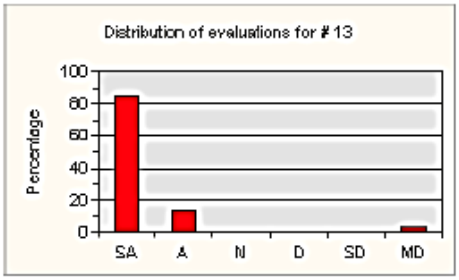
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

12. Students are encouraged to share their ideas and knowledge.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	30	5	4	0	0	0



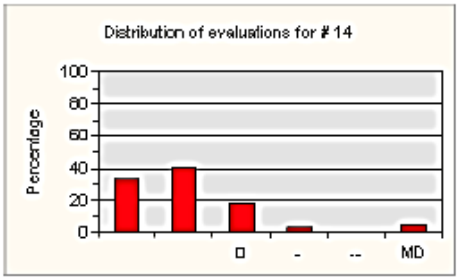
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

13. The instructor is approachable.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	33	5	0	0	0	1



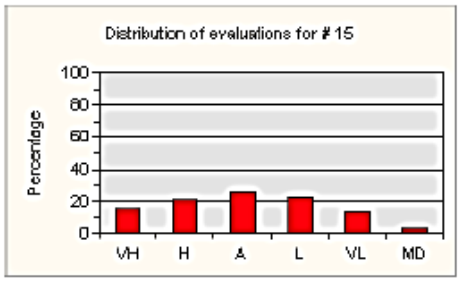
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

14. Overall, my involvement in this course has been...						
Median:	2					
Assessment:	Above average					
Student	++	+	±	-	--	MD
Responses:	13	16	7	1	0	2



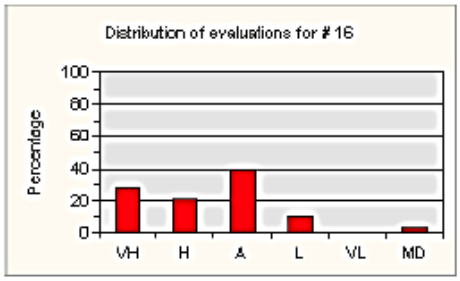
++=Well-Above Average, +=Above Average, ±=Average, -=Below Average, --=Well-Below Average, MD=Missing Data

15. What was your level of knowledge of the subject prior to taking this course?						
Median:	3					
Assessment:	Average					
Student	VH	H	A	L	VL	MD
Responses:	6	8	10	9	5	1



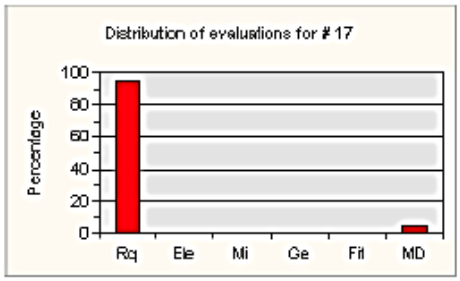
VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

16. What was your level of interest in the subject prior to taking this course?						
Median:	2.5					
Assessment:	Average					
Student	VH	H	A	L	VL	MD
Responses:	11	8	15	4	0	1



VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

17. What was your reason for taking the course?						
Median:	1					
Assessment:	Well above average					
Student	Rq	Ele	Mi	Ge	Fit	MD
Responses:	37	0	0	0	0	2



Rq=Required for Major or Specialization, Ele=Elective for Major or Specialization, Mi=Elective or Minor, Ge=General Interest, Fit=Fit into Schedule, MD=Missing Data

LEGEND:

The term 'N/A' stands for 'Not Applicable'
The term 'MD' stands for 'Missing Data'

STATISTICS:

The total number students participating in the evaluations and the total number of classes used in the comparisons for this particular report are listed in the following table:

TOTALS	DEPARTMENT		FACULTY	
	Current Semester	All	Current Semester	All

# of Classes	8	393	26	2178
# of Participants	181	10630	747	68239

NOTES:

1. The numbers quoted are actual numbers of respondents.

- For more detailed information please click on this link: Centre for Teaching & Learning Services (CTLS).
- Scanned version of the Questionnaire Forms are also available at the CTLS website.
- To print this page click here

Note: *Please use the **"Print Preview"** function in your browser to ensure the full contents will be printed. You may need to change the page setup (in your browser options) or even change the default values for the **margins** in order for the contents to fit within the page. Also, in order to print the charts properly, you need to activate the **"Print background colors and images"** option. The option is accessible via the Advanced tab from the Internet Options in Microsoft Internet Explorer.*

Return to top

Copyright © 2001-2014, Concordia University
Send comments and questions to FCMS-Support

Course Evaluation for INDU 6211 (Production Systems and Inventory Control)

Year: 2007

Print | Notes | Back

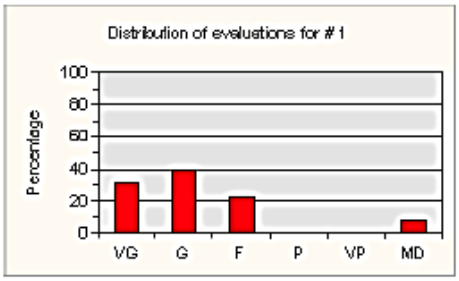
Concordia University Course Evaluation Report

CUPFA

PROF: FANTAHUN MELAKU DEFERSHA **DEPT:** MECHANICAL & INDUSTRIAL ENGINEERING **COURSE:** INDU 6211 **SECTION:** TT **YEAR:** 2007 **TERM:** 4W

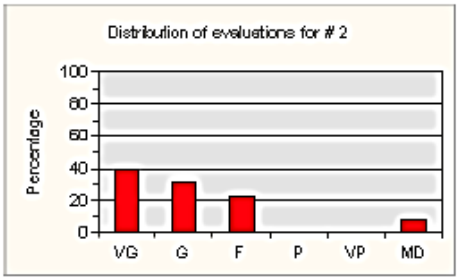
NUMBER OF EVALUATIONS: 1
NUMBER OF STUDENTS: 19
STUDENTS RESPONDING: 13
PERCENTAGE OF STUDENTS RESPONDING: 68.42%

1. Overall, this course has been...						
Median:	2					
Assessment:	Above average					
Student	VG	G	F	P	VP	MD
Responses:	4	5	3	0	0	1



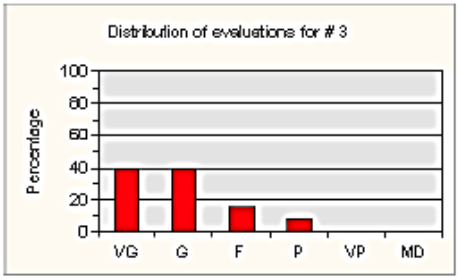
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

2. Overall, the instructor has been...						
Median:	2					
Assessment:	Above average					
Student	VG	G	F	P	VP	MD
Responses:	5	4	3	0	0	1



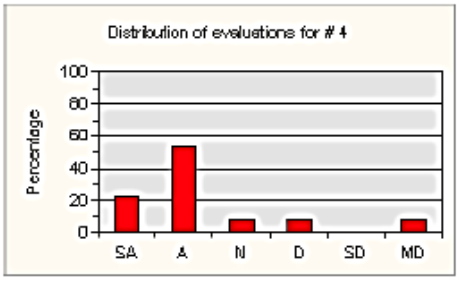
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

3. Overall, my learning has been...						
Median:	2					
Assessment:	Above average					
Student	VG	G	F	P	VP	MD
Responses:	5	5	2	1	0	0



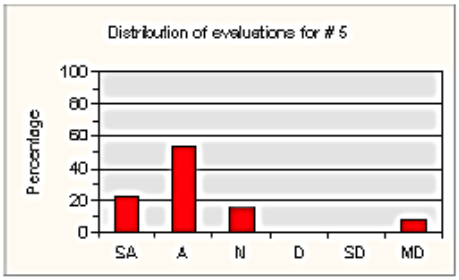
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

4. Course outline and syllabus are clear, complete and well explained.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	3	7	1	1	0	1



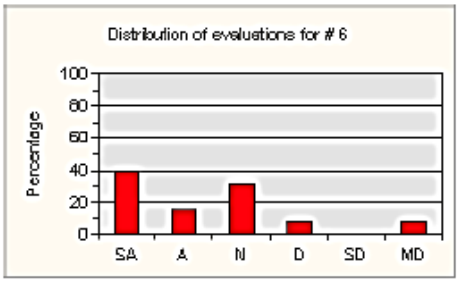
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

5. Course materials, text book or readings are useful or relevant.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	3	7	2	0	0	1



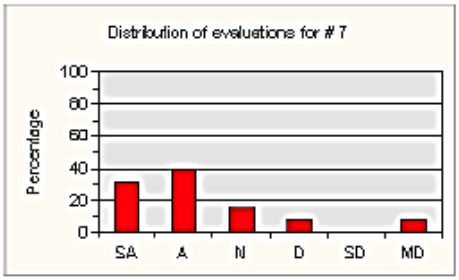
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

6. I have found this course intellectually challenging and stimulating.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	5	2	4	1	0	1



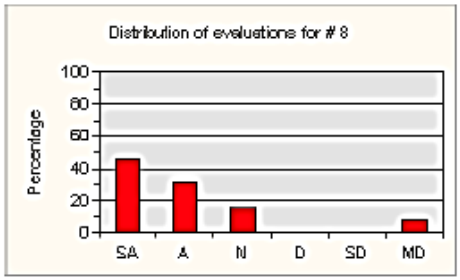
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

7. The course met the objectives as stated in the course outline.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	4	5	2	1	0	1



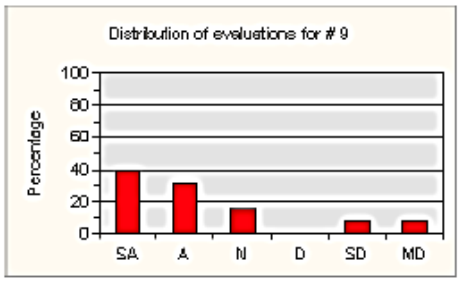
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

8. Instructor demonstrates a comprehensive knowledge of the subject matter.						
Median:	1.5					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	6	4	2	0	0	1



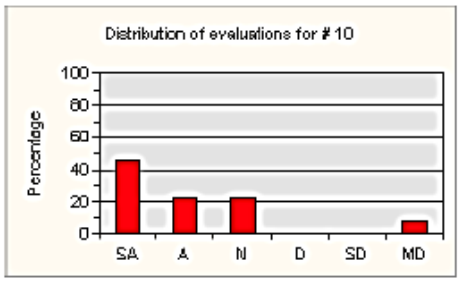
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

9. The instructor's explanations are clear.						
Median:	2					
Assessment:	Above average					
Student Responses:	SA	A	N	D	SD	MD
	5	4	2	0	1	1



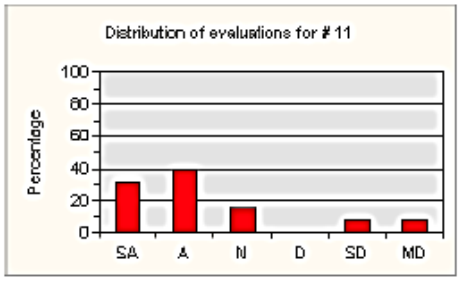
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

10. The instructor provides feedback in the form of exams and/or assignment grading.						
Median:	1.5					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	6	3	3	0	0	1



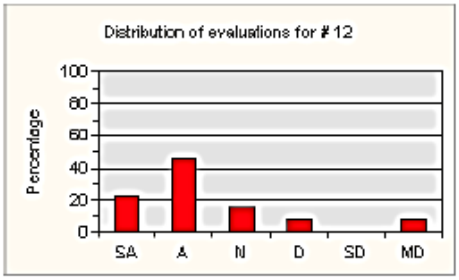
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

11. Students are encouraged to ask questions.						
Median:	2					
Assessment:	Above average					
Student Responses:	SA	A	N	D	SD	MD
	4	5	2	0	1	1



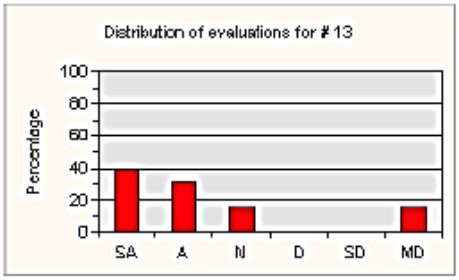
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

12. Students are encouraged to share their ideas and knowledge.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	3	6	2	1	0	1



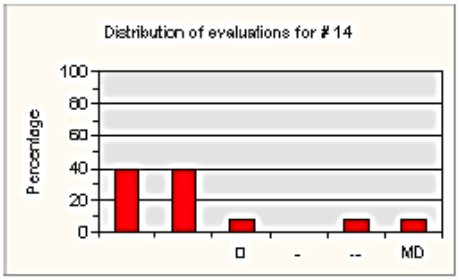
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

13. The instructor is approachable.						
Median:	2					
Assessment:	Above average					
Student	SA	A	N	D	SD	MD
Responses:	5	4	2	0	0	2



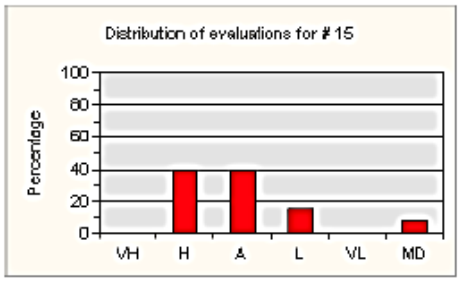
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

14. Overall, my involvement in this course has been...						
Median:	2					
Assessment:	Above average					
Student	++	+	±	-	--	MD
Responses:	5	5	1	0	1	1



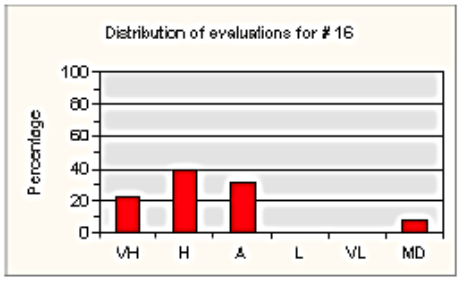
++=Well-Above Average, +=Above Average, ±=Average, -=Below Average, --=Well-Below Average, MD=Missing Data

15. What was your level of knowledge of the subject prior to taking this course?						
Median:	3					
Assessment:	Average					
Student	VH	H	A	L	VL	MD
Responses:	0	5	5	2	0	1



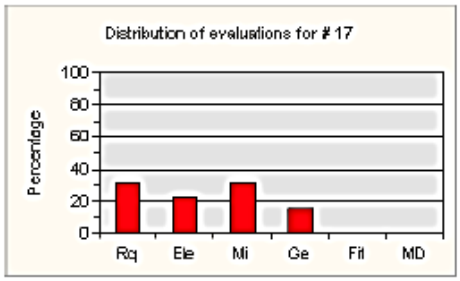
VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

16. What was your level of interest in the subject prior to taking this course?						
Median:	2					
Assessment:	Above average					
Student	VH	H	A	L	VL	MD
Responses:	3	5	4	0	0	1



VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

17. What was your reason for taking the course?						
Median:	2					
Assessment:	Above average					
Student	Rq	Ele	Mi	Ge	Fit	MD
Responses:	4	3	4	2	0	0



Rq=Required for Major or Specialization, Ele=Elective for Major or Specialization, Mi=Elective or Minor, Ge=General Interest, Fit=Fit into Schedule, MD=Missing Data

LEGEND:

The term 'N/A' stands for 'Not Applicable'
The term 'MD' stands for 'Missing Data'

STATISTICS:

The total number students participating in the evaluations and the total number of classes used in the comparisons for this particular report are listed in the following table:

TOTALS	DEPARTMENT		FACULTY	
	Current Semester	All	Current Semester	All

# of Classes	8	393	26	2178
# of Participants	181	10630	747	68239

NOTES:

1. The numbers quoted are actual numbers of respondents.

- For more detailed information please click on this link: Centre for Teaching & Learning Services (CTLS).
- Scanned version of the Questionnaire Forms are also available at the CTLS website.
- To print this page click here

Note: *Please use the **"Print Preview"** function in your browser to ensure the full contents will be printed. You may need to change the page setup (in your browser options) or even change the default values for the **margins** in order for the contents to fit within the page. Also, in order to print the charts properly, you need to activate the **"Print background colors and images"** option. The option is accessible via the Advanced tab from the Internet Options in Microsoft Internet Explorer.*

Return to top

Copyright © 2001-2014, Concordia University
Send comments and questions to FCMS-Support

Course Evaluation for INDU 6211 (Production Systems and Inventory Control)

Concordia University

Year: 2006

Print | Notes | Back

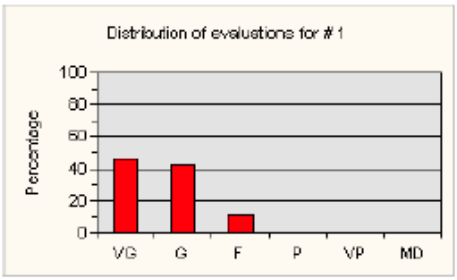
Concordia University Course Evaluation Report

CUPFA

PROF: FANTAHUN MELAKU DEFERSHA **DEPT:** MECHANICAL & INDUSTRIAL ENGINEERING **COURSE:** INDU 6211 **SECTION:** TT **YEAR:** 2006 **TERM:** 4W

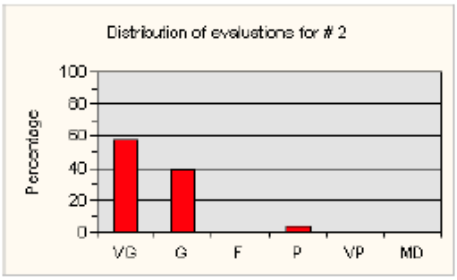
NUMBER OF EVALUATIONS: 1
NUMBER OF STUDENTS: 29
STUDENTS RESPONDING: 26
PERCENTAGE OF STUDENTS RESPONDING: 89.66%

1. Overall, this course has been...						
Median:	2					
Assessment:	Above average					
Student Responses:	VG	G	F	P	VP	MD
	12	11	3	0	0	0



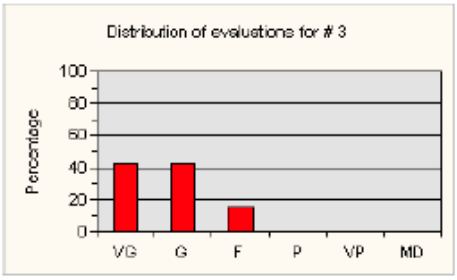
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

2. Overall, the instructor has been...						
Median:	1					
Assessment:	Well above average					
Student Responses:	VG	G	F	P	VP	MD
	15	10	0	1	0	0



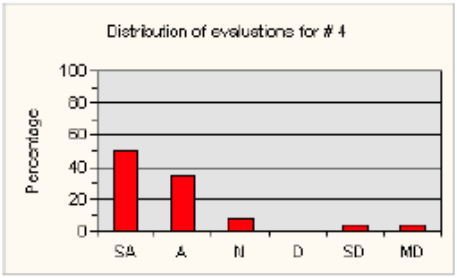
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

3. Overall, my learning has been...						
Median:	2					
Assessment:	Above average					
Student Responses:	VG	G	F	P	VP	MD
	11	11	4	0	0	0



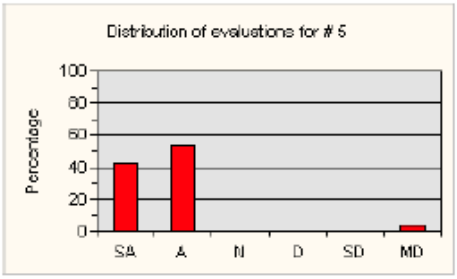
VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, MD=Missing Data

4. Course outline and syllabus are clear, complete and well explained.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	13	9	2	0	1	1



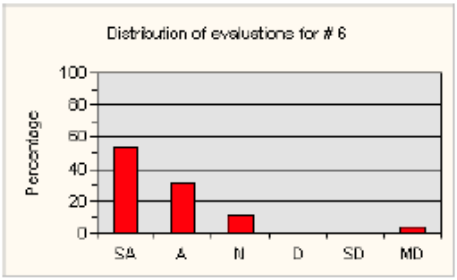
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

5. Course materials, text book or readings are useful or relevant.						
Median:	2					
Assessment:	Above average					
Student Responses:	SA	A	N	D	SD	MD
	11	14	0	0	0	1



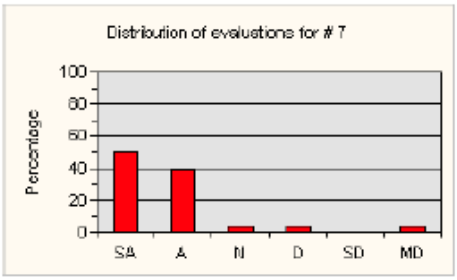
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

6. I have found this course intellectually challenging and stimulating.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	14	8	3	0	0	1



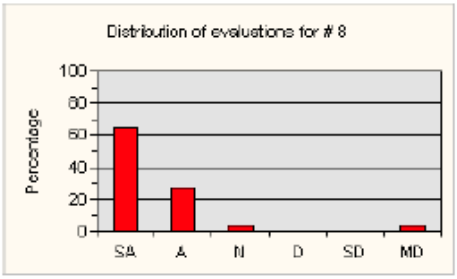
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

7. The course met the objectives as stated in the course outline.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	13	10	1	1	0	1



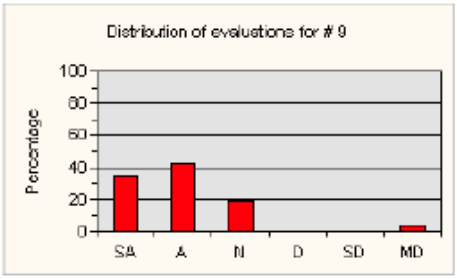
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

8. Instructor demonstrates a comprehensive knowledge of the subject matter.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	17	7	1	0	0	1



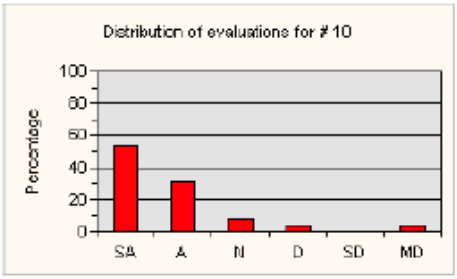
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

9. The instructor's explanations are clear.						
Median:	2					
Assessment:	Above average					
Student Responses:	SA	A	N	D	SD	MD
	9	11	5	0	0	1



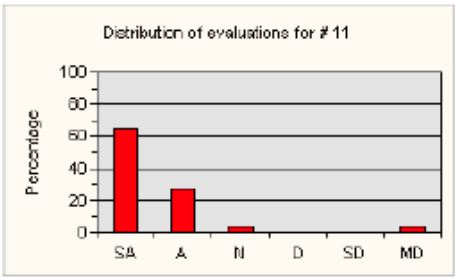
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

10. The instructor provides feedback in the form of exams and/or assignment grading.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	14	8	2	1	0	1



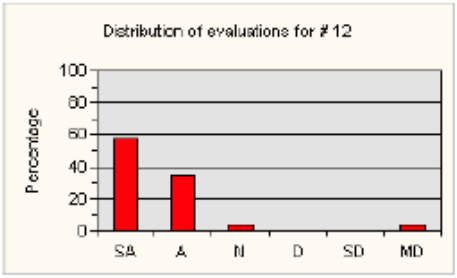
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

11. Students are encouraged to ask questions.						
Median:	1					
Assessment:	Well above average					
Student Responses:	SA	A	N	D	SD	MD
	17	7	1	0	0	1



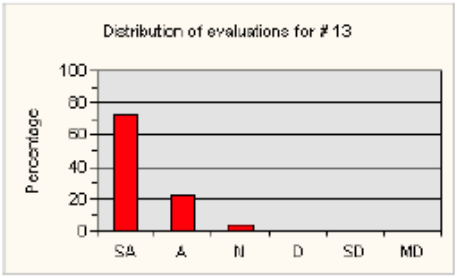
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

12. Students are encouraged to share their ideas and knowledge.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	15	9	1	0	0	1



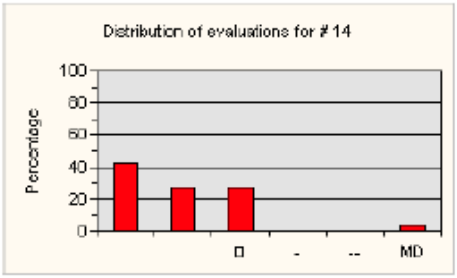
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

13. The instructor is approachable.						
Median:	1					
Assessment:	Well above average					
Student	SA	A	N	D	SD	MD
Responses:	19	6	1	0	0	0



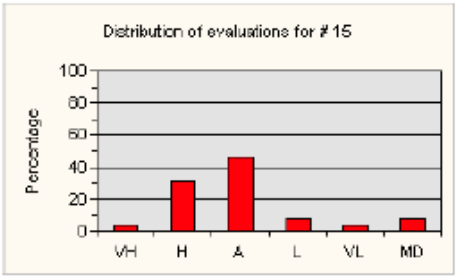
SA=Strongly Agree, A=Agree, N=Neither agree nor disagree, D=Disagree, SD=Strongly Disagree, MD=Missing Data

14. Overall, my involvement in this course has been...						
Median:	2					
Assessment:	Above average					
Student	++	+	±	-	--	MD
Responses:	11	7	7	0	0	1



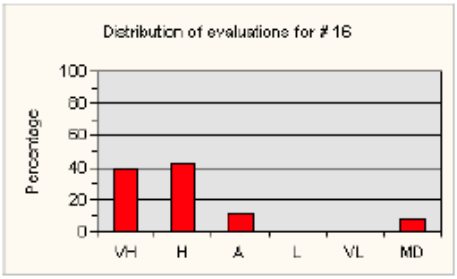
++=Well-Above Average, +=Above Average, ±=Average, -=Below Average, --=Well-Below Average, MD=Missing Data

15. What was your level of knowledge of the subject prior to taking this course?						
Median:	3					
Assessment:	Average					
Student	VH	H	A	L	VL	MD
Responses:	1	8	12	2	1	2



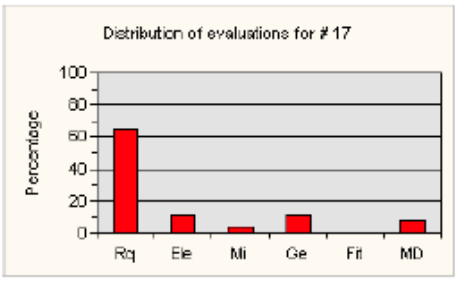
VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

16. What was your level of interest in the subject prior to taking this course?						
Median:	2					
Assessment:	Above average					
Student	VH	H	A	L	VL	MD
Responses:	10	11	3	0	0	2



VH=Very High, H=High, A=Average, L=Low, VL=Very Low, MD=Missing Data

17. What was your reason for taking the course?						
Median:	1					
Assessment:	Well above average					
Student	Rq	Ele	Mi	Ge	Fit	MD
Responses:	17	3	1	3	0	2



Rq=Required for Major or Specialization, Ele=Elective for Major or Specialization, Mi=Elective or Minor, Ge=General Interest, Fit=Fit into Schedule, MD=Missing Data

LEGEND:

The term 'N/A' stands for 'Not Applicable'
The term 'MD' stands for 'Missing Data'

STATISTICS:

The total number students participating in the evaluations and the total number of classes used in the comparisons for this particular report are listed in the following table:

TOTALS	DEPARTMENT		FACULTY	
	Current Semester	All	Current Semester	All

# of Classes	8	393	41	2178
# of Participants	285	10630	1618	68239

NOTES:

1. The numbers quoted are actual numbers of respondents.

- For more detailed information please click on this link: Centre for Teaching & Learning Services (CTLS).
- Scanned version of the Questionnaire Forms are also available at the CTLS website.
- To print this page click here

Note: *Please use the **"Print Preview"** function in your browser to ensure the full contents will be printed. You may need to change the page setup (in your browser options) or even change the default values for the **margins** in order for the contents to fit within the page. Also, in order to print the charts properly, you need to activate the **"Print background colors and images"** option. The option is accessible via the Advanced tab from the Internet Options in Microsoft Internet Explorer.*

Return to top

Copyright © 2001-2014, Concordia University
Send comments and questions to FCMS-Support

The following three pages contain confidential comments I received from students for the course Industrial Operations Research (INDU 323) that I taught during Winter 2007 in Concordia University, Montral, Quebec, CANADA

PROF: DEFERSHA, FANTAHUN MELAKU
DEPT: MECH. & INDUSTRIAL ENGR
INDU 323/4/X
REG: 57
April 28th, 2008

COMMENTS:

- 18. Good.

- 18. CL building is far and there are not windows.
  Chairs are bourgogne and it's really pretty, as well as the graphite looking tables. The pencil holder is amazing.
  There are too many chewing gums stuck under the chairs.
  The temperature is good and it doesn't smell bad.
- 19. He's amazing, love the jokes.
  Slides are superb and pleasing to the eyes. I can give out course to my friends too.

- 18. Everything seems to be fine.
- 19. No comments. The instructor was productive and feedback was good, learned well from him.

- 18. Everything was fine.
- 19. I read the chapters like I was instructed, but I found it to elaborate too much and I loose the point of the chapter. I find there is too much blah, blah…the notes are more straight to the point, but are little too brief. So I end up having to go through my notes and the book all the time to understand each of he two.

- 19. Thanks a lot sir, very nice course, love you, a lot of interaction.

- 18. Ok.

- 18. It's alright. I can't complain.
- 19. None. He is a very good professor, approachable and understanding.

- 18. Very good.
- 19. Improve tutorial.

- 18. Everything is very good. Nice class.

…/2

PROF: DEFERSHA, FANTAHUN MELAKU
DEPT: MECH. & INDUSTRIAL ENGR
INDU 323/4/X
REG: 57
April 28th, 2008

COMMENTS:

- 19. Excellent instructor, I had very nice learning experience.

- 18. Perfect for a good atmosphere.
- 19. None, one of the best instructor, cares about his students.

- 18. Could be better.
- 19. You are an amazing teacher.
  Keep it up sir!
  A+A+

- 18. Ok.
- 19. Should administer midterm/quizzes fairly for 1st quiz many students collaborated/cheated together which is not fair to those students who are honest in writing their quizzes.

- 18. Very good.
- 19. The professor knows his material perfectly, and teaches it in an interesting way.

- 19. The teacher was excellent. Explains very well. Very impressed with his method of teaching very active class.

- 18. Perfect, no complaints or suggestions.
- 19. Everything was great do not change anything.

- 18. Excellent.
- 19. The professor is excellent. Keep it was long as possible.

- 18. Class size was good.
- 19. Continue the same way.

.../3

PROF: DEFERSHA, FANTAHUN MELAKU
DEPT: MECH. & INDUSTRIAL ENGR
INDU 323/4/X
REG: 57
April 28th, 2008

COMMENTS:

- 19. Give more assignment, not graded, only suggestions problems and the solutions so we can learn by ourselves more.

- 19. He has a great way of teaching. He makes the students get involved and get them interested.

- 19. As you can see from the evaluation. I couldn't stress more on how excellent this professor was. Excellent in teaching, very close to students, makes us feel that he is there whenever we need him. I don't mind taking all courses with time, and I hope he will be teaching other course. AMAZING PROFESSOR!!

- 19. Excellent professor the best so far. Wish he can give more undergraduate industrial engineering courses.

- 18. Class should be in auditorium, students in back can't see.

- 18. It is ok.
- 19. This teacher is amazing. KEEP IT UP!

- 18. proper.
- 19. -

- 18. Class size is too small, air is not enough.
- 19. Excellent instructor would absolutely take other course with him. Very helpful and always in a good mood which motivates students.
Thank you for everything.

- 19. Do not post everything online, students don't come to class.
More quizzes.

6.2 Course Evaluation Copies (Addis Ababa University)

The following are course evaluation for the some of the courses I taught as a lecturer in Addis Ababa University, Ethiopia, before I start my PhD.

ADDIS ABABA UNIVERSITY

INSTRUCTOR PERFORMANCE EVALUATION QUESTIONNAIRE
(To be completed by students)

This questionnaire has been prepared to get your views regarding the teaching performance of your instructor. Please respond to the items on the questionnaire frankly and honestly. Do NOT write your name on the questionnaire, but write the name of your instructor, your department and faculty, the title of the course, course number, the academic year, semester, and your college year in the spaces provided. After you have filled in these, read carefully each of the statements listed from 1-30 below. Then indicate how you evaluate your instructor on each statement by circling one of the following options against each statement:

VG = Very Good F = Fair VP = Very Poor
G= Good P = Poor DK = Do not know

Instructor's name _____ course title _____
Course No. _____ Your Department _____ Faculty _____
Academic Year _____/_____ semester _____
Your year: Undergraduate programme: I II III IV VI (Circle one)
Graduate programme: I II III IV

1.	Clarification of the statement of general objectives of course.	1.	VG	G	F	P	VP	DK
2.	Presentation and clarification of course plan and course outline.	2.	VG	G	F	P	VP	DK
3.	Clarification of the statement of specific objectives at the Beginning of each chapter or unit.	3.	VG	G	F	P	VP	DK
4.	Knowledge of the subject matter	4.	VG	G	F	P	VP	DK
5.	Preparation for classes.	5.	VG	G	F	P	VP	DK
6.	Presentation of subject matter clearly in the language of instruction.	6.	VG	G	F	P	VP	DK
7.	Presentation of subject matter.	7.	VG	G	F	P	VP	DK
8.	Willingness to encourage students to ask or answer questions in class.	8.	VG	G	F	P	VP	DK
9	Willingness to let students express their options about the Course in the classroom.	9.	VG	G	F	P	VP	DK
10.	Availability during consultation hours.	10.	VG	G	F	P	VP	DK
11.	Punctuality for classes.	11.	VG	G	F	P	VP	DK
12.	Meeting classes regularly (non-absenteeism).	12.	VG	G	F	P	VP	DK
13.	Ability to arouse students' interest and provoke their thinking	13.	VG	G	F	P	VP	DK
14.	Ability to encourage student participation in the classroom.	14.	VG	G	F	P	VP	DK
15.	Appropriate use of available and relevant instructional materials (blackboard, maps,...)	15.	VG	G	F	P	VP	DK
16.	Providing feedback on homework, tests and/or assignments on time	16.	VG	G	F	P	VP	DK
17.	Usefulness of homework and/or assignments for course work.	17.	VG	G	F	P	VP	DK
18.	Presence of questions in tests, exams, or homework, that require reasoning.	18.	VG	G	F	P	VP	DK
19.	Amount of time allowed for tests, assignments, or mid-semester exams	19.	VG	G	F	P	VP	DK
20.	Coverage of course content in tests or mid-semester exams	20.	VG	G	F	P	VP	DK
21.	Fairness in marking/grading.	21.	VG	G	F	P	VP	DK
22.	Clarification of the methods of assessing students.	22.	VG	G	F	P	VP	DK
23.	coverage of content according to course outline.	23.	VG	G	F	P	VP	DK
24.	Providing/giving a list of reference materials for the course.	24.	VG	G	F	P	VP	DK

1

25. Use of class period for teaching or discussion of subject and related matters.	25.	VG	G	F	P	VP	DK
26. Respect for students.	26.	VG	G	F	P	VP	DK
27. Willingness to listen to a student's problems.	27.	VG	G	F	P	VP	DK
28. Ability to maintain appropriate discipline in the class.	28.	VG	G	F	P	VP	DK
29. Clarity of questions in tests, and/or mid-semester exams.	29.	VG	G	F	P	VP	DK
30. Overall assessment of instructor's teaching effectiveness.	30.	VG	G	F	P	VP	DK

Note:

The department would appreciate it very much if you could give additional comments regarding the course which could help us improve the course:

1. Have you been attending classes regularly? _____
2. What grade do you expect to earn in this course? _____
3. Identify any positive aspects of the course _____
4. Identify any negative aspects of the course _____

Thank you and good luck!

Summary of Student Evaluation Questionnaire

Name Ato Fantahun Melaku
Subject MEng515 Ind. Management & Engineering Economics
Department Mechanical
Faculty Technology
Academic year 1999/2000 Semester - II

No	NR	VG	G	F	P	VP	AV
1	30	25	5	0	0	0	4.83
2	29	23	5	1	0	0	4.76
3	29	23	5	1	0	0	4.76
4	30	24	4	2	0	0	4.73
5	29	26	3	0	0	0	4.90
6	29	24	3	1	1	0	4.72
7	30	25	3	1	1	0	4.73
8	30	23	4	2	1	0	4.63
9	30	23	6	1	0	0	4.73
10	27	23	3	1	0	0	4.81
11	30	24	5	1	0	0	4.77
12	28	23	5	0	0	0	4.82
13	30	26	4	0	0	0	4.87
14	30	24	4	1	1	0	4.70
15	30	26	3	1	0	0	4.83
16	30	26	3	1	0	0	4.83
17	31	29	0	2	0	0	4.87
18	30	25	4	1	0	0	4.80
19	31	24	5	2	0	0	4.71
20	30	25	5	0	0	0	4.83
21	30	26	4	0	0	0	4.87
22	31	26	5	0	0	0	4.84
23	31	26	4	1	0	0	4.81
24	31	25	6	0	0	0	4.81
25	27	21	5	1	0	0	4.74
26	26	22	4	0	0	0	4.85
27	26	23	3	0	0	0	4.88
28	26	21	5	0	0	0	4.81
29	26	20	6	0	0	0	4.77
30	26	21	4	1	0	0	4.77

Weighted Average 4.79

NR Number of Respondents
AV Average

Comments _____

Summary of Student Evaluation Questionnaire

Name Ato Fantahun Melaku
Subject MED 202 Engineering Mechanics II
Department Mechanical
Faculty Technology
Academic year 1999/2000 Semester - II

No	NR	VG	G	F	P	VP	AV
1	38	32	6	0	0	0	4.84
2	38	35	2	1	0	0	4.89
3	38	30	8	0	0	0	4.79
4	37	31	5	1	0	0	4.81
5	37	35	2	0	0	0	4.95
6	37	28	9	0	0	0	4.76
7	37	32	5	0	0	0	4.86
8	38	28	10	0	0	0	4.74
9	36	27	9	0	0	0	4.75
10	33	27	5	1	0	0	4.79
11	36	33	3	0	0	0	4.92
12	37	35	2	0	0	0	4.95
13	37	26	11	0	0	0	4.70
14	35	25	9	1	0	0	4.69
15	38	26	11	1	0	0	4.66
16	35	19	12	3	1	0	4.40
17	36	21	12	3	0	0	4.50
18	36	23	10	3	0	0	4.56
19	38	22	13	3	0	0	4.50
20	35	26	7	2	0	0	4.69
21	19	13	5	1	0	0	4.63
22	31	17	12	2	0	0	4.48
23	37	24	12	1	0	0	4.62
24	38	26	11	0	1	0	4.63
25	37	32	5	0	0	0	4.86
26	37	34	3	0	0	0	4.92
27	36	27	8	1	0	0	4.72
28	37	32	4	1	0	0	4.84
29	35	22	11	2	0	0	4.57
30	36	30	6	0	0	0	4.83

Weighted Average 4.73

NR Number of Respondants
AV Average

Comments _____

Summary of Student Evaluation Questionnaire

Name Ato Fantahun Melaku
Subject MEng 416 Engineering Mechanics IV
Department Mechanical
Faculty Technology
Academic year 1999/2000 Semester - II

No	NR	VG	G	F	P	VP	AV
1	29	23	6	0	0	0	4.79
2	29	23	5	1	0	0	4.76
3	29	20	7	0	1	1	4.52
4	28	20	5	1	2	0	4.54
5	29	22	7	0	0	0	4.76
6	29	20	5	3	1	0	4.52
7	29	20	8	1	0	0	4.66
8	27	20	7	0	0	0	4.74
9	28	19	7	2	0	0	4.61
10	27	22	4	1	0	0	4.78
11	29	22	5	2	0	0	4.69
12	29	26	2	1	0	0	4.86
13	28	22	4	2	0	0	4.71
14	29	25	3	1	0	0	4.83
15	29	20	9	0	0	0	4.69
16	28	18	10	0	0	0	4.64
17	28	18	9	0	0	1	4.54
18	29	19	8	2	0	0	4.59
19	29	19	9	1	0	0	4.62
20	29	19	8	2	0	0	4.59
21	28	19	7	2	0	0	4.61
22	28	19	8	1	0	0	4.64
23	29	18	10	0	1	0	4.55
24	29	20	9	0	0	0	4.69
25	26	21	5	0	0	0	4.81
26	27	23	4	0	0	0	4.85
27	27	21	5	1	0	0	4.74
28	28	21	6	1	0	0	4.71
29	28	21	6	1	0	0	4.71
30	28	20	7	1	0	0	4.68

Weighted Average 4.68

NR Number of Respondants
AV Average

Comments _____

Summary of Student Evaluation Questionnaire

Name Ato Fantahun Melaku
Subject EE212 Probability & Statistics
Department Mechanical Engineering
Faculty Technology
Academic year 1999/2000 Semester I A Summer

No	NR	VG	G	F	P	VP	AV
1	33	23	9	1	0	0	4.67
2	33	24	8	1	0	0	4.70
3	33	19	12	2	0	0	4.52
4	32	18	11	3	0	0	4.47
5	33	25	8	0	0	0	4.76
6	33	21	9	2	1	0	4.52
7	33	18	13	2	0	0	4.48
8	31	18	11	2	0	0	4.52
9	31	16	12	2	0	1	4.35
10	32	23	9	0	0	0	4.72
11	33	30	2	1	0	0	4.88
12	33	26	6	1	0	0	4.76
13	33	17	12	2	1	1	4.30
14	33	17	14	1	1	0	4.42
15	32	19	10	3	0	0	4.50
16	30	16	10	4	0	0	4.40
17	29	13	11	5	0	0	4.28
18	33	18	14	1	0	0	4.52
19	32	19	10	3	0	0	4.50
20	33	23	9	1	0	0	4.67
21	28	11	10	5	1	1	4.04
22	30	16	11	3	0	0	4.43
23	32	20	11	1	0	0	4.59
24	33	12	10	9	2	0	3.97
25	33	23	9	1	0	0	4.67
26	32	27	5	0	0	0	4.84
27	32	23	8	1	0	0	4.69
28	32	24	8	0	0	0	4.75
29	33	18	13	2	0	0	4.48
30	33	24	9	0	0	0	4.73

Weighted Average 4.54

NR Number of Respondents
AV Average

Comments _____

Summary of Student Evaluation Questionnaire

Name Ato Fantahun Melaku
Subject MEng 409 Production Engineering I
Department Mechanical
Faculty Technology
Academic year 2000/01 Semester - I

No	NR	VG	G	F	P	VP	AV
1	25	21	2	1	1	0	4.72
2	25	20	4	0	1	0	4.72
3	25	20	4	0	1	0	4.72
4	25	19	4	1	1	0	4.64
5	25	19	5	1	0	0	4.72
6	25	18	5	1	1	0	4.60
7	24	19	3	1	1	0	4.67
8	24	18	4	2	0	0	4.67
9	25	18	5	2	0	0	4.64
10	23	15	8	0	0	0	4.65
11	25	20	4	1	0	0	4.76
12	25	19	4	2	0	0	4.68
13	25	18	2	5	0	0	4.52
14	24	18	3	2	0	1	4.54
15	25	19	5	1	0	0	4.72
16	24	15	6	2	1	0	4.46
17	25	17	7	0	1	0	4.60
18	25	16	7	2	0	0	4.56
19	25	18	6	1	0	0	4.68
20	24	18	4	2	0	0	4.67
21	18	11	6	1	0	0	4.56
22	24	18	5	0	1	0	4.67
23	25	16	6	1	1	1	4.40
24	25	17	5	0	2	1	4.40
25	25	21	4	0	0	0	4.84
26	25	22	3	0	0	0	4.88
27	25	21	3	1	0	0	4.80
28	24	18	5	1	0	0	4.71
29	25	17	5	1	1	1	4.44
30	25	19	3	2	1	0	4.60
					Weighted Average		4.64

NR Number of Respondants
AV Average

Comments _____
_____
_____

Summary of Student Evaluation Questionnaire

Name Ato Fantahun Melaku
Subject ME204 Machine Drawing I
Department Mechanical
Faculty Technology
Academic year 2000/2001 Semester - I

No	NR	VG	G	F	P	VP	AV
1	21	16	4	1	0	0	4.71
2	20	15	5	0	0	0	4.75
3	17	13	4	0	0	0	4.76
4	21	16	5	0	0	0	4.76
5	21	15	3	3	0	0	4.57
6	20	17	2	1	0	0	4.80
7	21	17	4	0	0	0	4.81
8	21	14	6	1	0	0	4.62
9	20	13	6	1	0	0	4.60
10	18	11	6	1	0	0	4.56
11	21	15	6	0	0	0	4.71
12	20	15	5	0	0	0	4.75
13	21	13	7	0	1	0	4.52
14	21	15	5	1	0	0	4.67
15	21	13	6	1	0	1	4.43
16	20	13	5	2	0	0	4.55
17	20	12	7	1	0	0	4.55
18	18	12	5	1	0	0	4.61
19	15	9	3	0	3	0	4.20
20	17	11	5	0	1	0	4.53
21	18	12	2	1	2	1	4.22
22	18	12	4	1	1	0	4.50
23	17	13	2	1	1	0	4.59
24	18	14	3	0	1	0	4.67
25	19	14	4	0	1	0	4.63
26	19	14	4	0	1	0	4.63
27	18	13	4	0	1	0	4.61
28	19	13	3	2	1	0	4.47
29	16	11	4	0	1	0	4.56
30	19	16	2	0	1	0	4.74

Weighted Average 4.60

NR Number of Respondents
AV Average

Comments _____

Summary of Student Evaluation Questionnaire

Name Ato Fantahun Melaku
Subject MED 235 Machine Drawing
Department Mechanical
Faculty Technology
Academic year 2000/2001 Semester - I

No	NR	VG	G	F	P	VP	AV
1	17	12	5	0	0	0	4.71
2	17	11	5	1	0	0	4.59
3	17	10	6	1	0	0	4.53
4	16	12	4	0	0	0	4.75
5	17	10	7	0	0	0	4.59
6	17	11	5	1	0	0	4.59
7	17	11	5	1	0	0	4.59
8	16	13	3	0	0	0	4.81
9	17	12	3	2	0	0	4.59
10	17	12	4	1	0	0	4.65
11	17	11	5	1	0	0	4.59
12	17	12	4	1	0	0	4.65
13	17	11	4	2	0	0	4.53
14	17	13	2	2	0	0	4.65
15	17	13	3	1	0	0	4.71
16	17	14	2	1	0	0	4.76
17	17	14	2	1	0	0	4.76
18	15	10	4	1	0	0	4.60
19	17	10	4	3	0	0	4.41
20	17	10	7	0	0	0	4.59
21	16	9	6	1	0	0	4.50
22	17	13	4	0	0	0	4.76
23	16	10	5	0	1	0	4.50
24	15	8	6	0	1	0	4.40
25	16	11	3	1	1	0	4.50
26	16	12	3	0	1	0	4.63
27	16	10	5	0	1	0	4.50
28	16	11	4	0	1	0	4.56
29	16	11	3	1	1	0	4.50
30	16	13	2	0	1	0	4.69

Weighted Average 4.61

NR Number of Respondants
AV Average

Comments _____
_____
_____