Teaching Dossier Package

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Contents

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1 Statement of Teaching Philosophy

Building a successful future for the next generation relies on today's educators. Teaching in my opinion is defined as a successful approach to illustrate/express an idea to a learner as a valuable knowledge rather than a burden. The goal of teaching is to allow students to get out of their mental comfort zone and still manage to learn new concepts. I personally admire educators who view teaching to be more than just a "job". They enter that efficacious mode where inspiration and passion are radiating from their style and approaches of teaching. The excitement level increases when they get deeper and deeper into the material. Such atmosphere is contagious to students within the class. Not only it will help them focus and follow along, but also makes learning, which is a difficult task, to be perceived as an easier duty. An academic fulfilling these characteristics is the quintessential role model of a true educator. Furthermore, the idea of effective learning to me is refining the bridge between prior knowledge and new information. Expressing a new concept to a learner is not necessarily impressive; building upon previous knowledge by constructively linking the new ideas *is* effective learning. The act of teaching is dynamic: there are different courses to teach at different times during the day, each student is unique in the way they learn, think and has a distinctive cognitive structure. There are different intellectual obstacles which will be encountered daily. I love teaching as it always brings new challenges for myself to overcome. The more challenges I encounter, the better I will become, academically and personally. Moreover, I find the most effective approach of learning is by teaching someone else. Not only I will master the material, I will also be introduced to different styles of learning. This will require exhibiting multiple approaches to explain concepts. The blissfulness of teaching someone and see them develop and excel academically is something indescribable.

In general, educators adapt to numerous methods of teaching depending on their discipline. Philosophers might favour open-discussions and idea-sharing across the classroom. Creative/artistic teachers, for example, tend to resort to visual aid such as sketches and comics. Similarly, mathematicians and computer scientists also rely on visual aid but in the form of diagrams, graphs and logical conceptualization such as algorithms and proofs. As a mathematician and a software developer, I fancy to approach a problem far away from detailed logic and rigorous representation when introducing a new concept; it would be some sort of an open-class discussion session. I prefer to abstractly introduce a concept as this will allow students to engage and focus on the general concept rather than the details. The students will build and construct a logical argument from the ground up (with some aid from myself) to complete most or even all of the concept. This will be further discussed in the material of strategies section 2.

My goal towards myself as an educator is to try my best upon improving myself. This includes attending workshops regularly and take courses which broaden my knowledge in teaching in higher education. Also, I tend to read books that target effective teaching inside the classroom. Currently, I started to read *The Skillful Teacher on Technique, Trust, and Responsiveness in the Classroom* by Stephen Brookfield. It is an excellent book as it explores the different approaches and ideas that can be used throughout the class. Learning about more broader perspectives enhances my pedagogical overall and learning about approaches

that are tailored to my discipline will benefit me even more. This is why I will also read *Higher Education Computer Science – A Manual of Practical Approaches* by Jenny Carter after completing the Brookfield's book. It discusses approaches to learning, multitasking during lectures, active learning in large lectures and other schemes.

My focus is to allow students to freely express their opinion/suggestions regarding how their classroom should be managed. In terms of morals, I expect all my students to be honest and respectful toward myself and to their peers. Academically, I want them to try their best and take the material seriously. I don't expect them to be academically advanced nor be exceptional, I want them to care enough to attend class and pay attention. In terms of questions inside of the classroom, it is my duty to establish a friendly environment for questions and it is their responsibility to ask. Equally important, it is fair to also mention what sort of expectations the students require me to fulfill. Respecting all students without any exceptions is my highest priority. In the classroom, it is my responsibility to ensure the majority of students are on the same page. I believe that a true educator includes most of the students regardless of the difficulty they are facing. Some might have personal problems; others might have a bad day and some might be intellectually challenged to grasp the non-trivial material. I should be available regularly. This includes regular and frequent office hours as well as answering all emails in a well-timed manner. Teaching is simple, *effective* teaching is much complex. I focus on effectively teaching my students and to strive to become a better educator to build a generation of successful learners.

2 Material and Teaching Strategies

In Computer Science, understanding a concept is not necessarily difficult; programming the concept is very challenging. A student must grasp the concept first in order to successfully program it. I focus on drawing diagrams and explain what I am doing every time I take a small step. Even though it might be straightforward for me, it doesn't mean it is as straightforward to the students. Adjusting my level of knowledge to match an average student's level is the most deceiving task; I will never truly know if my adjustment is sufficient. Hence, my golden rule to effective teaching is to not assume the student have prior knowledge, always give a brief introduction before introducing the concept and only then, the concept can be introduced. The more important point is how can I guarantee my teaching *is* effective teach? I will explain achieving effective teaching in one-on-one situation between a student and myself, in a lab consisting between 10 and 20 students and in a large class which consists of 20 or more students. Of course, in any of the situations, I do apply my golden rule.

In one-on-one situations, I can *firmly* confirm whether or not effective teaching take place. After the brief introduction, I make sure they take a picture of what I explained on the board, then, I choose a simple but complete example to illustrate the concept. I will lead to arrive at the answer while asking the student questions along the way. Once completed, I will review the steps from the beginning and then allow the student to take a picture of the derivation. That way, the student is engaged throughout the process and will also have the notes on them. They don't have to rush copying what is on the board, lose eye-contact nor miss any

of my verbal explanation. Then, I will give a question to the student to answer. This time, they will lead the process and I will be the observer/listener. Of course, I will give them hints along the way as I don't expect them to completely derive the solution themselves. Once completed, they will go over it and I will make sure they do understand the concept by asking them key questions. Extra explanation might be needed to clarify any further doubts. At the end, they will understand the concept, seen how to derive the answer and derived one themselves. More importantly, they have the notes on their phones as pictures. Before the meeting is done, I would *highly* express my appreciation towards them writing what has been discussed on a piece of a paper. This also guarantees the satisfaction of the four learning styles: visual, auditory, kinesthetic and learning by reading and writing. The only downside to this method, in my opinion, is that it takes time. This can require more than 30 minutes to be implemented.

In a lab setting, I follow similar approach to the one-on-one method but cannot guarantee effective teaching is met all the time. I would start with a brief introduction and directly jump into the material (due to time constraint). It will be a fast-pace learning experience, but I am required to teach all material given to me. I realized that I can give the students guidance tips on how to achieve the desired goal. This will make sure that I have time to give my explanations, have the students engage in the lab and mentally challenge them to arrive to the result. I would show them how to derive the solution using the same tips given. I verbally share my thought process as this is critical in developing problem-solving skills. Afterwards, I circle around to make sure all students copied the code and have it running. I will fix their code if necessary, then, we then move to the next exercise to be completed. In the case where there isn't a lab scheduled after mine, I would stay after to discuss the material with any students who need more assistance. My goal is to teach them the fundamental and hope they can grasp the lab material on their own time. The lab time is not sufficient for understanding everything discussed. The compensation I realized is to always encourage the students to email me if they have any doubts. We can discuss it further via email or via one-on-one appointment. Moreover, I do ask for any suggestions the students might have to improve the atmosphere in the lab.

In a large class (such as a tutorials), I always start with my golden rule. I then discuss material regarding the tutorial and the labs during that week. I realized that making my own personal tutorial notes are much helpful for me and the students as they can follow the same structure I developed. The key here is to make the notes short, simple and straight to the point as well as related to the course material. I would begin with showing an outline of the material that will be discussed in the tutorial. Then, I explain the keywords that will be used throughout the tutorial. They are defined using simple English words as there is a great number of international students. Furthermore, I use similar approach to the one discussed in the one-on-one case. The students are encouraged to participate and discuss/answer the questions I ask. As a class, we arrive at the solution of a question. Of course, the students are given permission to take pictures whenever they desire. I cannot explicitly determine the efficiency of this approach in a large classroom. I have adapted to a few principles that would assist all students. The personal notes can be accessible online to all the students. I decided to give the students the opportunity to subscribe to tutorial notes (with the permission of

the instructor of the course). Furthermore, since I don't have an office nor office hours, I shared with my students that I will reply to their emails with 24 hours (including weekends and holidays). This will give them the opportunity to go over the tutorial notes and know help will be available within 24 hours. I also mention throughout the tutorials they can email me to book a one-on-one meeting to further go over the material. During the tutorial, some key points can be considered which yield some guidance to whether or not the tutorial was effectively taught. Facial expressions and the number of hands raised throughout the tutorial could help in determining if I was successful to get the point across. Moreover, I focus on the feedback of the students. The type of the questions asked will give me some insight regarding where the students are and how I should adapt to narrow down the gap between where they are and where they should be. Of course, I will improve with experience and maturity.

3 Professional Development in Teaching and Learning

To become the educator I wish to be, I am required to invest in pedagogically developing myself. Furthermore, I believe my academic and educational evolution is achieved through a long period of time of subtle but consistent development. I realized that Centre for Pedagogical Innovation (CPI) at Brock University offers workshops for TAs to enhance their pedagogical expertise. I decided to attend the workshops as they fulfill my belief of development. The educational atmosphere when listening to other educators from different disciplines enriches my pedagogical philosophy within my classroom. The workshops I attended for the first time were productive as they introduced me to perspectives I wasn't aware of. For example, the *Supporting Academic Integrity with your Students* workshop broaden my horizon to be aware of services as such A-Z Learning Services. It focuses on increasing the academic success and retention of students in the university. The workshop discussed the definition of Academic Integrity and what constitutes plagiarism. I also learned that students are not allowed to distribute lecture material to one another without the permission of the instructor. Hence, I decided to allow my students to take pictures during my class. I also gave them the permission to do whatever they would like with my personal notes. Furthermore, I did inform them that this is the case in my class, other instructors have different rules they follow regarding their material. Another example is the *Compassionate TAs Advocating for Students Dealing with Loss* workshop. It was tough to complete as it was the first time encountering something taboo of this nature. The positive note from this workshop is that I was introduced to the *Mental Health and Wellness* program at Brock University. I did visit them and asked for hundreds of cards to distribute to my students in the tutorial. A card has the information for: personal counselling, campus security, student health services, student accessibility services, sexual violence coordinator and educator 24 hours post-secondary student hotline (Good 2 Talk) as well as places to consider within the city. Furthermore, I realized that attending the same workshop twice is *very* informative. It wouldn't be that I know the material because I attended it before, rather, it would be constructively building upon what I already know. I am confident of this because I never attended a workshop twice and not learned anything beneficial. All the workshops I have attended are found in table Table 6 in Appendix A.

I was honoured to be a student of Dr. Jill Grose and Mrs. Lianne Fisher when I was enrolled in GRST 5P01 (*Theory and Practice of University Teaching*) in Sep 2018. These individuals are experts in Educational Development. I come from a completely different discipline where the instructor is the one that determines the atmosphere and pace of the classroom themselves, writes the material on the board, ask questions and usually receives none (a question or two on a good day), then continues with writing on the board. For me and based on my experience, I summarize this course as exposing the idea of effective teaching as well as teaching is a two-way association which requires the educator to learn his/her students. The key goal I learned from this course is how to include as much of the students and ensure what I am transferring is being received. What I acquired from this course can be seen implemented in Material and Teaching Strategies (section 2).

The Instructional Skills Workshop is a beneficial experience I encountered in Oct 2019. It combined all of my practices to be observed from the student's point of view and simultaneously from an educator's perspective. My topic was *Math in Binary Base* which included addition and multiplication of binary digits (0's and 1's) that continued throughout the three mini-lessons in the workshop. I had in mind that the first lesson will be the toughest as it will build the fundamentals of the needed knowledge. I also had a feeling that it will not be enjoyable for my students (though, for me, it is the most enjoyable lesson out of the entire series). The feedback was not negative but nor positive which is what I expected. I did implement only one comment received from the students. It was to optimize my board usage. For the next two lessons, I divided the boards and used different coloured markers for each section. The next two lessons were extremely positive and the students (who are not in the Faculty of Science) truly loved it. From my perspective, I didn't change anything that was fundamental. It is the same topic and the momentum I had in mind continued. Their confidence boosted after learning the first lesson (which was the most difficult lesson). The eye-contact throughout the next lessons and smiles on their faces after obtaining the right results was joyful. The simple examples I precisely selected and shared with them to illustrate my point immensely helped. I realized that the examples I use can make or break effective teaching. Hence, I am confident that my golden rule which requires a brief summary without the assumption of prior knowledge and only then continue with the material is beneficial.

4 Teaching Experience

I am fortunate to be hired by the department of Computer Science at Brock University as an instructor in the Fall of 2022. I was given the task to teach APCO 1P00 (*Introduction to Media Computation*). The course focuses on designing, programming and debugging Python code through the manipulation of text, graphics, file processing, basic HTML page creation and automatic webscraping. It is offered for non-computer science majors. My first objective was creating a course outline. I designed the topic for each week and consulted the chair of the department to ensure it is appropriate. Once the confirmation was received, I realized that the material focuses on topics that might not be tightly related, due to the nature of the course. When it came to choosing a textbook, I decided to not use any textbook and

create the entire course from scratch. I am able to refer to the official documentation of the language or packages that will be used and include them in my lecture slides. While that took a great deal of time, I was happy to develop a course that is fully customized to encompass the different topics encountered. In addition to this, I created the labs as well as tutorials for the course. I had to also create the assignments and tests.

As the instructor, I decided to create three versions of labs. One for the students, the other for students but with solutions and the last one for the teaching assists. The teaching assist version included key points to consider and give hints on how the labs should be executed. I also created rubrics of the assignments as well as the midterm and exam.

While it was difficult to match the level of non-computer students first time being an instructor, I learned a lot. At the beginning, I would give a brief summary of the previous lecture and then continue with the new material. Based on the feedback of the students, I realized that this wasn't effective teaching. So, I extended my brief summary from a five-minute to twenty-minute session to review the previous lecture. I would go over the material again because students would have the ability to hear a different explanation of the same material, which tends to be effective in teaching, based on the students' feedback(similar to my experience when I attended the same workshop twice).

Since I share my slides with the students, and lectures are the theory aspect of the course, I decided to use the whiteboard when explaining. After multiple weeks, I asked the class if they wanted me to use the whiteboard or explain run the program on the computer. Their feedback was to change and primarily use the computer. The slides had the code and output attached but they preferred that I would run it live, not just "show it". I adapted to the new approach and focused mainly on running the programs. After multiple lectures, I asked them the same question. I was surprised to hear that they wanted me to not use the computer but focus on the whiteboard instead. I would think it is because they have the ability to take notes easier by copying what is written on the whiteboard. The moral of this experience, in my opinion, is to use both approaches. That is why I adapted to using both approaches for the Winter 2023 semester. I will keep on asking the students for feedback and will adapt to whatever they wish. I have received the course evaluations for my couple of courses as an instructor. They are found in section 5.

Table 1: Teaching experience as an instructor since Sep 2022

#	Course Code	Semester	Instructor	Enrolled
01	APCO 1P00	Fall 2022	Al Jumaily	50
02	APCO 1P00	Winter 2023	Al Jumaily	80
03	MATH 1P67	Spring 2023	Al Jumaily	55
04	STAT 1F92	Fall/Winter 2024	Al Jumaily	250
05	COSC 1P03	Winter 2024	Al Jumaily	150
06	COSC 1P03	Spring 2024 (soon)	Al Jumaily	60

The courses I have been associated with a contract as a teaching assist have been listed (I have marked other courses due to special circumstances which are not listed in the dossier). The courses listed below has the following names: COSC 1P02 (Introduction to Computer Science), COSC 1P03 (Introduction to Data Structures), COSC 2P89 (Internet Technologies), FMSC 1P00 (Transitioning to University Science) and MATH 1P40 (Mathematics Integrated with Computers and Applications). The roles are given as these abbreviations: M = marker, L = Lab Demonstrator, T = Tutorial Demonstrator and C = Course Coordinator.

Table 2: Teaching experience as a Teaching Assistant

#	Course Code	Semester	Enrolled	Role
01	COSC 1P02	Fall 2018	350	M
02	COSC 2P89	Fall 2018	70	M
03	COSC 1P03	Winter 2019	200	L
04	COSC 1P02	Fall 2019	420	M, L, T
05	COSC 1P02	Winter 2020	120	M, L, T
06	COSC 1P02	Fall 2020	370	M, L, T, C
07	COSC 1P02	Winter 2021	100	M, T, C
08	COSC 1P03	Winter 2021	350	M, T, C
09	COSC 1P02	Fall 2021	320	M, T, C
10	FMSC 1P00	Fall 2021	60	M, T
11	COSC 1P02	Winter 2022	100	M
12	COSC 1P02	Fall 2022	100	T, C
13	FMSC 1P00	Fall 2022	50	M, T
14	COSC 1P02	Winter 2023	100	M
15	MATH 1P40	Winter 2023	50	L, M

I was assigned to be a marker in my first semester as a TA. I focused on first comment-

ing about the positives in the assignments. Next, I would point-out the areas that needs improvement. I would make sure that not only the flaws are pointed out, but also how they should be fixed. Hence, I attach a minimum but complete example to illustrate my point. Some of samples of my constructive feedback can be found in Appendix A. After the positive ratings from the professor and students, the department decided to keep me in the lab section. After a successful first semester as a lab demonstrator, I was also assigned the tutorials as well. In the fall of 2019, it was my first time being the tutorial leader for COSC 1P02. I had to take care of all students registered in class, which are in the hundreds. My main contribution occurred when I rewrote the entire exam review. The original material was written in a way that was extremely difficult to understand. The material might not be hard but the way it was presented created the illusion it was. Since this is the first computer science course that anyone can take (including non-computer science majors), the material in my opinion needed to be presented differently. It should be described using simple English, any code in text should be in a different font with colours (code is color-coded to make it easier to read). Furthermore, I have added two images that I designed myself and referred to throughout the review. I have provided samples answers of before and after the revision.

- **Definitions:**
  - **Original:** High Level language: A problem-oriented (or high-level) language is a language that expresses the algorithm in a notation close to natural language. However, the language is for formalized that natural language (to remove ambiguities).
  - **Modified:** High Level language: A programming language that is defined by syntax understood by human.
  - **Original:** Collection: A collection is an aggregation of objects or values which can be referred to as a whole as well the individual elements can also be referenced.
  - **Modified:** Collection: An object which holds sub-objects, *i.e.*, `Picture` holds `Pixels`, `Sound` holds `Samples`, etc.
- **Short answer:**
  - **Question:** Downcast vs upcast
  - **Original:** When the type of an object and the type required in a particular context (e.g. parameter, assignment) differ, a class cast may occur. The class cast doesn't change the object in any way but changes the type of the object. A downcast occurs when the type of the object is changed to a subtype such as from Object to a particular type. An upcast occurs when the type is changed to a super type such as from a particular type to Object. A downcast must be explicit and may fail at execution time. An upcast is automatic and can be verified at compile time.
  - **Modified:**
    - Downcast occurs when the type of the object is broader and is changed to a subtype (specific type). For example,

```
Item anItem = (Item) invData.readObject();//we read an object
        (broader) but casted it to Item (more specific).
```

- Upcast occurs when the type of the object is specific and is changed to a supertype (broader type). For example,

```
invData.writeObject(anItem);//we write the item (more specific)
                    as an object (much broader).
```

- **Long answer:**
  - **Question:** We've seen two techniques for processing the pixels in a picture: a for-each loop and an iterative for loop. What are two advantages of the for-each? What are two advantages of an iterative for?
  - **Original:** The for-each loop automatically handles indexing through the entire picture so we avoid the possibility of errors such as missing some pixels or processing a pixel more than once. It also does not require the declaration of a Pixel variable within the method since the index variable is local to the loop. The iterative for allows the processing of the pixels in any order and the possibility of processing only a subset of the pixels so it is more general.
  - **Modified:**
    - A for-each loop automatically loops through all pixels (top to bottom, row by row) in a picture avoiding errors like (`PixelOutOfBoundsException`) or visiting a pixel more than once. We don't declare an extra variable to get current pixel, we use the variable in the loop, i.e.,

```
for(Pixel p : pic){
    //current pixel we are visiting can be
   referred to as p.
}
```

    - The iterative for loop allows us to visit pixels in any order and we can specify a part of the picture to loop though. For example:

```
for(int i = 10; i <= 100; i++){
    for(int j = 15; j <= 25; j++){
        Pixel p = pic.getPixel(i, j);
    }
}
```

5 Feedback and Observation Letter

I have attached some of the electronical feedback received through email. It should be mentioned that all of the electronical feedback from students in this section is voluntary. I didn't ask the students to email me anything. I have received several feedbacks over the

years and are attached next. Moreover, this section contains the observation letter from Lianne Fisher who kindly attended my tutorial in the winter semester of 2020.

Figure 1: A surprising letter from the business department (Goodman School of Business) depicting the success of the students in my course APCO 1P00 Fall 2022 course.

Hi Dr. Jumaily,

This email is to let you know that some of your Undergraduate students nominated you for Goodman's student-voted teaching awards. At the Student Success Celebration on April 4, Geoff Hoover received the undergraduate award and Parunchana Pacharn received the graduate award.

Here's what your students had to say about their experience in your class:

- He is dynamic, we feel that he really loves his job.
- He always helps his students very fast. My emails are always answered within 5 minutes.
- He has strong communication skills.
- He will do his best and try to ensure students understand the topic.

Thanks for making such a big impact on the Goodman student experience.

Best regards,

The Communications and Engagement Team

Figure 2: A student that I have taught as a TA in COSC 1P02 and as an instructor in MATH 1P67 showing gratitude regarding my COSC 1P03 tutorial notes, even though I wasn't directly involved in COSC 1P03 during that semester.

Date: Tuesday, December 26, 2023 at 9:41 PM
To: Maysara Al Jumaily <amaysara@brocku.ca>
Subject: Happy Holidays and update on COSC 1P03.

Hello Sir,

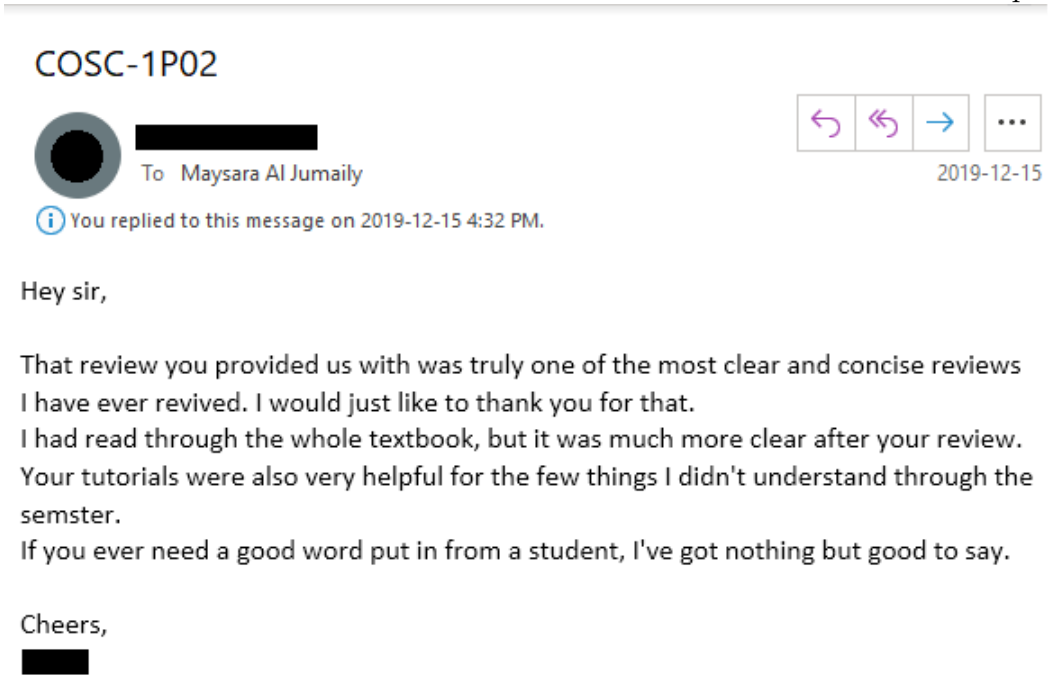
Happy Christmas and New Year! Wishing you and your family joy and good health during this holiday season.

I wanted to provide a quick update on my COSC 1P03 situation – I achieved a 70% this time. I am writing this to express my
sincere gratitude for your support throughout. I know this not enough thanking you.
Your notes were again a clutch and even earlier I knew exactly what you taught in the tutorials still watched them again and were still helpful and perfect and now I have just by-hearted them.
Looking ahead to next semester, I'll be tackling 2P03 and 2P12, little bit nervous but excited with better understanding of concepts this time, but again I will constantly disturb you with my doubts in your busy schedule, and eagerly looking forward to attending your 1P03 lectures.

Once again, thank you, sir, for your invaluable support and Happy Holidays.

Best regards,

Figure 3: The feedback from a student in COSC 1P02's Fall 2019 tutorial component.



COSC-1P02

[redacted]

To Maysara Al Jumaily

2019-12-15

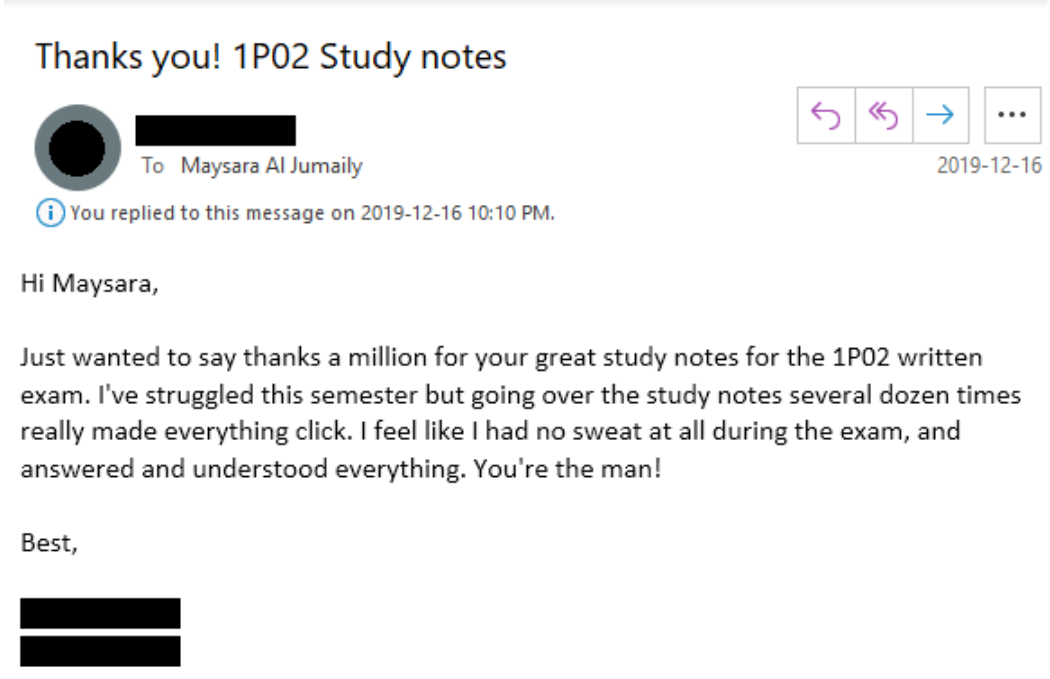
You replied to this message on 2019-12-15 4:32 PM.

Hey sir,

That review you provided us with was truly one of the most clear and concise reviews I have ever revived. I would just like to thank you for that.
I had read through the whole textbook, but it was much more clear after your review.
Your tutorials were also very helpful for the few things I didn't understand through the semster.
If you ever need a good word put in from a student, I've got nothing but good to say.

Cheers,
[redacted]

Figure 4: Another feedback from a student in COSC 1P02's Fall 2019 tutorial component. This student struggled throughout the semester. He then took the next course, COSC 1P03, which is extremely hard, even though he isn't a computer science major.



Thanks you! 1P02 Study notes

[redacted]

To Maysara Al Jumaily

2019-12-16

You replied to this message on 2019-12-16 10:10 PM.

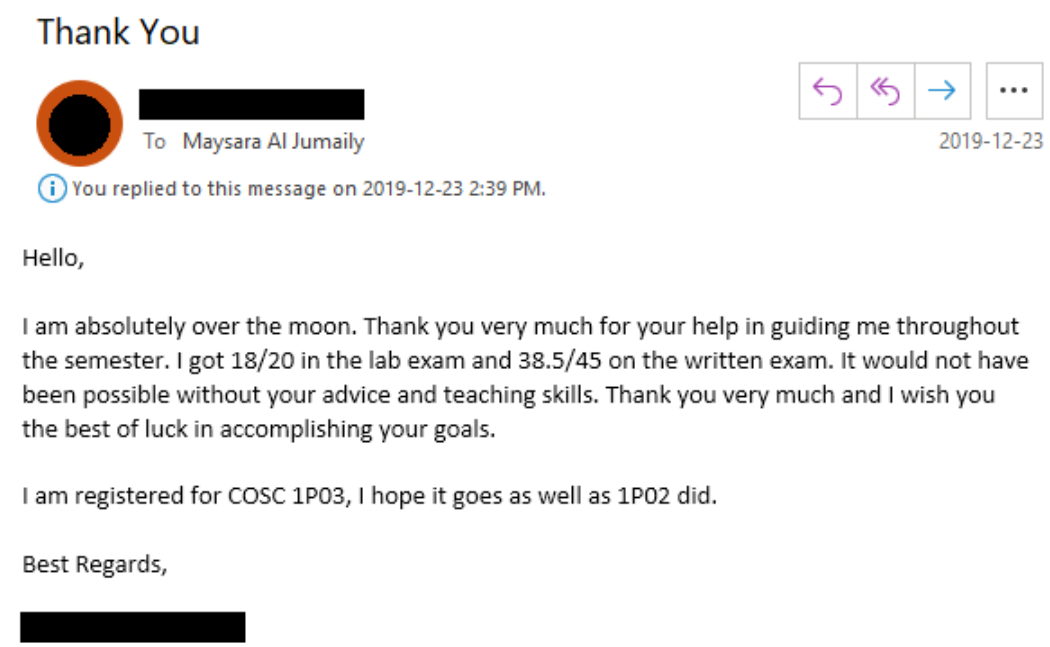
Hi Maysara,

Just wanted to say thanks a million for your great study notes for the 1P02 written exam. I've struggled this semester but going over the study notes several dozen times really made everything click. I feel like I had no sweat at all during the exam, and answered and understood everything. You're the man!

Best,

[redacted]

Figure 5: Last feedback from a student in COSC 1P02's Fall 2019 tutorial component.



Thank You

[redacted]

To Maysara Al Jumaily

2019-12-23

You replied to this message on 2019-12-23 2:39 PM.

Hello,

I am absolutely over the moon. Thank you very much for your help in guiding me throughout the semester. I got 18/20 in the lab exam and 38.5/45 on the written exam. It would not have been possible without your advice and teaching skills. Thank you very much and I wish you the best of luck in accomplishing your goals.

I am registered for COSC 1P03, I hope it goes as well as 1P02 did.

Best Regards,

[redacted]

Centre for Pedagogical Innovation

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St. Catharines, ON
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15 February, 2020

Dear Maysara,

It was a pleasure to join your class (COSC 1P02: Introduction to Computer Science) for a teaching observation on 28 January, 2020, from 6 – 6:45p.m. As you know, my role in your class was not as a learner but to engage in a teaching observation, I did want to share, however, that I enjoyed your class.

What follows here is a description of what I observed in both the teaching and learning processes in this class. It is an observation of this one class only and, as such, is not meant as a statement on your teaching effectiveness as a whole. It does however provide a reference point for our follow up discussions and, if included in your teaching dossier, can document your involvement in peer observation and your commitment to reflective practice.

The majority of your students were present and prepared for your lecture on your arrival (approximately 50-80 in attendance). I noted that the class was quiet on my arrival and that had student approach you and you engaged with them. You began your session checking in with your learners to see how they were and then shared the agenda of what was to follow. I thought a strength of your lesson was when you shared your personal story and; more importantly, that you were going to support your students in their learning.

You interspersed the delivery of course content with questions, which your student answered. It took the student a little time to warm up and perhaps asking them to *think-pair-share* at the start may help. It is sometimes easier to try out an answer to a peer rather than the whole room. There were a couple of instances where repeating your student's answer to your question would help; at times, it was difficult to hear what was being said, partly because the student was facing toward the front of the room.

At times the text and/or the color of the text on the screen interfered with my ability to see, which may simply be because I chose to sit toward the back of the lecture hall; nonetheless, I would check in with students in this regard. I would also recommend that reduce the amount of information on the screen which can encourage learners to focus on what you were saying. I might suggest that instead of erasing what is on the white board you move it, so students can refer back to this information (take a picture etc.).

I found your demeanor during the lecture to be engaging, you tended to stay by your monitor unless using the whiteboard. Moving out and moving around the front of the lecture hall may engage your students a little more. Also, at times you asked a question and then would down at your monitor, this might be a good time to come out from behind the podium, so students are not just waiting for you to answer or move on. It might be a helpful cue for them?

I wanted to suggest that when writing on the board, perhaps repeat what you said facing the room when you finish writing. I think it is useful to speak while writing, but at times it was difficult to hear, because you were facing the board. Also, repeating the inform is helpful. My other comment is I appreciated your impulse to check in with students, you asked "*alright; right; OK, guys; are we good*", and I would suggest perhaps changing your phrasing to something like: "*what would you like more information on*" or "*what are you still wondering about*?", this way learners do not have to concede in the front of the class that they did not understand something or they are not OK. I want to reiterate it is a strength of yours to check in with the class, you did it frequently; however, I encourage you to change your wording just to make it easier for the learners. You could also ask them to engage in a think-pair-share and then ask what they would like more information on.

Thank you again for inviting me to your classroom, I appreciate it. Please let me know if there is anything else I can do, or if I can support your teaching in any other way. Overall, you demonstrated many of the teaching practices and strategies published in the literature on effective teaching and learning in higher education. You appeared to be very much at ease in the class, comfortable with the students, with the material.

I enjoyed visiting your class and having the opportunity to comment on what I observed. I wish you continued success with your teaching.

Regards,

Lianne Fisher
Educational Developer
Centre for Pedagogical Innovation
Brock University

6 Teaching Evaluation

My first two course evaluations (Fall 2022 and Winter 2023) as an instructor are discussed next. The students have the chance to choose one of the following options for each question (with their associated numeric value): Very Positive (5), Positive (4), Indifferent (3), Negative (2) and Very Negative (1). A question will have an average between 5.00 and 1.00. Of course, the higher the average the "better". I have received 15 responses out of 49 students (or 33%) for Fall 2022 term and 10 responses out of 59 students (or 17%) for Winter 2023. Here is a table with the questions[1] asked along with the average:

Table 3: The questions presented to the students for them to answer

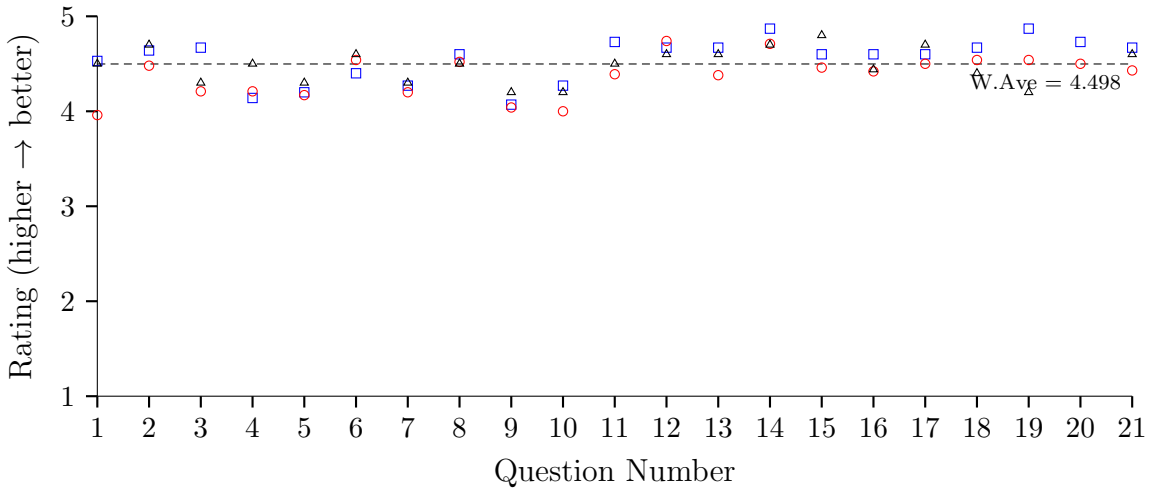
#	Question
01	I found the course engaging
02	The instructor fostered a respectful learning environment
03	I had a positive experience in this course
04	I found the course intellectually challenging and stimulating
05	I have learned something I consider valuable
06	Course content was clearly related to course objectives
07	I found the workload of this course reasonable compared with that of my other courses
08	Methods for evaluating my work were fair and appropriate
09	I would recommend this course to other students
10	My overall rating of this course is outstanding
11	I was able to get help when I sought it
12	The instructor provided a clear course syllabus and explained the course objectives
13	The instructor explained the material clearly
14	The instructor was enthusiastic about the subject
15	The instructor was well prepared and organized
16	The overall instruction by this instructor was good
17	Students were encouraged to participate in class discussions
18	Students were encouraged to share their ideas and knowledge
19	Students were encouraged to ask questions and were given meaningful answers
20	The instructor was punctual and gave all classes
21	I would rate this instructor as excellent

A visual representation is found in Figure 6. Overall, APCO 1P00 during Fall 2022 (squares) had an average rating of 4.54 whereas the Winter 2023 (circles) semester had 4.48 instead. Furthermore, MATH 1P67 during Spring 2023 (triangles) had 4.48 average as well, but statistically appropriate as 53% of the students submitted their responses. The weighted average is:

$$\frac{15 \cdot 4.54 + 10 \cdot 4.48 + 25 \cdot 4.48}{15 + 10 + 25} = 4.498. \tag{1}$$

[1] These are not the only questions but are the ones relevant to my case

Figure 6: The results of Table 3 plotted with the weighted average of the total results.

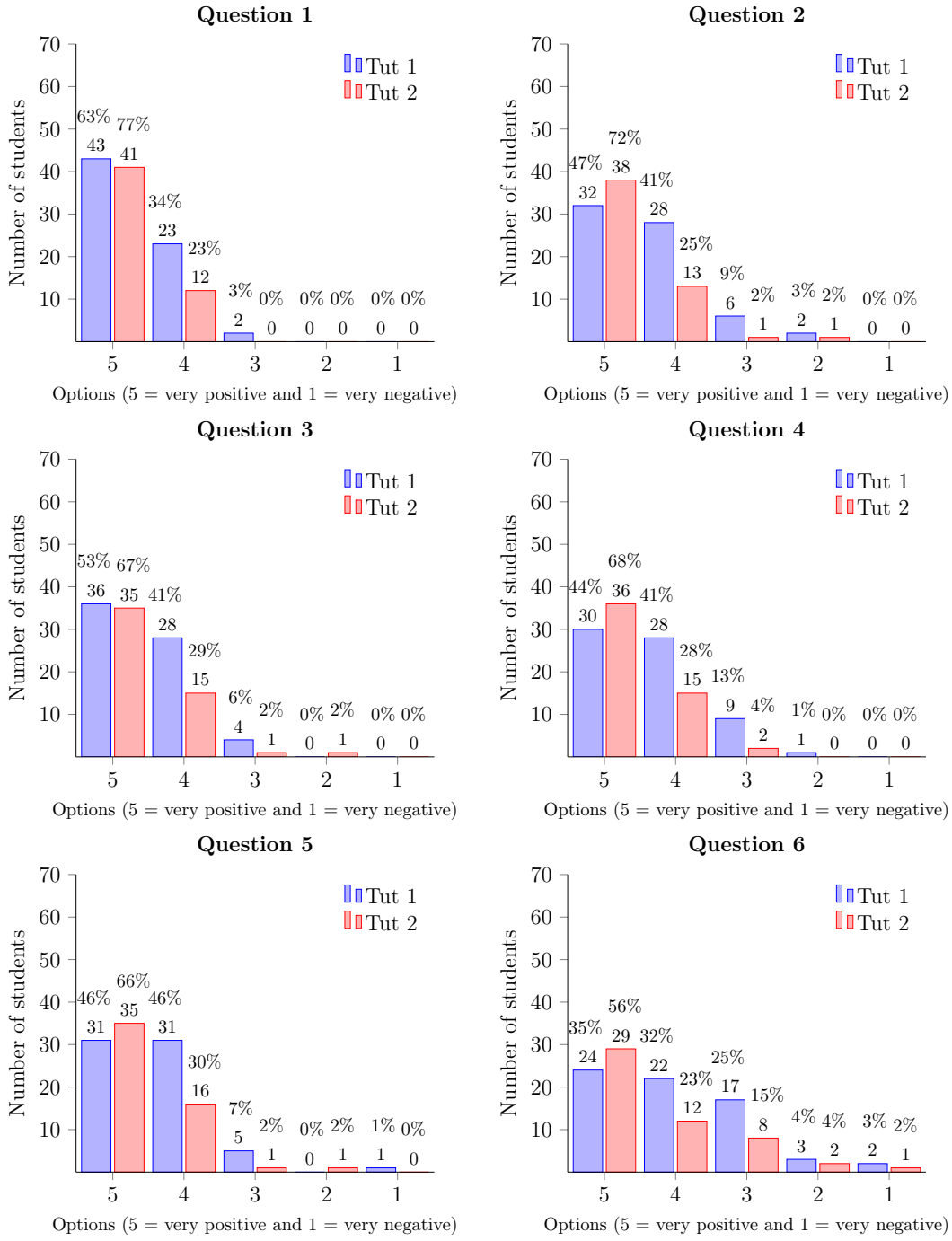


My thought about the *slightly* lower evaluation regarding Winter's 2023 is because the class time was from 6pm to 10pm Tuesday nights. It is quite difficult for the student and the educator to push through a four-hour worth of learning/teaching. As a TA, it is difficult to obtain student feedback that *only* reflects my teaching capabilities without including other TAs. However, the feedback that will be discussed next is solely based on my evaluation alone and is from Fall of 2019. I took care of two tutorial sections tut 1 and tut 2 where each had 219 and 162 students enrolled, respectively. Only 69 (32%) of the students in tutorial 1 and 53 (33%) from tutorial 2 students completed the questionnaire. I should mention that these rating represents myself only as I were the one and only tutorial leader. Unfortunately, I didn't receive my evaluations during COVID-19. The questions the students answered are found in Table 4. The assessment is visually represented in Figure 7, along with a summary in Table 5.

Table 4: The questions presented to the students to provide their assessment regarding their TA

#	Question
1	The TA is knowledgeable in the course material
2	The TA asked guiding questions
3	The TA took an initiative to providing help to students
4	The TA presented questions related to the lecture
5	The TA ensured a student understands the concepts presented
6	The TA spent a fair amount of time with each student

Figure 7: Visual representation of the evaluation of the students



Some analysis to the results:

1. Tutorial 1 has a slightly lower rating which is expected as it was the first tutorial I taught in the week. I became more comfortable with the material when it came to the second tutorial, hence, the slightly higher rating.

2. Question 6 scored the lowest of all questions because the tutorial is equivalent to a

Table 5: The averages and medians of the six questions from Figure 7 regarding the questions found in Table 4

	Q1		Q2		Q3		Q4		Q5		Q6		
Tutorial	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	**Total**
Average	4.32	4.42	4.32	4.42	4.32	4.42	4.32	4.42	4.32	4.42	4.32	4.42	**4.37**
Median	4.33	5.00	4.33	5.00	4.33	5.00	4.33	5.00	4.33	5.00	4.33	5.00	**4.66**

lecture (classroom-wise) with many students to take care of. I cannot spent a fair amount of time with each student given I only have 50 minutes.

7 Diversity, Equity and Inclusion Statement

The field of computer science is known for its diversity among different cultures and nationalities. Furthermore, it is disproportionally diverse when it comes to male-female ratio. At Brock University, the majority of computer science majors are international students. I kept this point in mind and ensured my lecture notes are written with simpler English along with simple explanation to domain-specific terminology. Since I look forward to challenges when teaching, I have invited students who struggled due to language barriers to attend my labs. I know that if they don't understand my explanation, then I would have to take on a different approach. This could be in the form of drawing a figure, creating an example dedicated to that concept or ask them what I should explain differently. Since I also speak Arabic, I utilize this skill to elucidate the objective in English and Arabic.

In terms of the disproportionally between the male-female ratio, I am thankful for having the opportunity of being the instructor of a non-computer science major course. I realized that the ratio changes quite significantly. I would estimate the ratio to be $5 : 3$. Hence, based on my experience, I believe that the field is including women in its core. To further include women, I have the tendency to bring this to the department's attention and create a Women in Computer Science club.

My comprehensive inclusion objective is to further improve my lectures. For example, I hope to record my lectures and upload them to YouTube, similar to the notion of how MIT OpenCourseWare operate. In addition, it would be a priority to upload a custom transcript along with the video for the sake of inclusion. Furthermore, I am interested in creating high quality animations to explain the concepts being taught. While I have created some, I plan to animate all types of concepts, from arrays to linked lists to matrix multiplication. My PDF notes should improve further and encompass all of the three colour blindness. I plan to create three versions of each of my notes and use the appropriate colour scheme associated with the colour blindness. This is very practical for me to achieve as I have been working on achieving this type of flexibility with my notes.

8 Future Objectives

The main objective I have in mind is to always strive in becoming a better version of myself, on a personal level as well as an academic level. I have a few targets I would like to achieve. The first is to complete the following books: The Skillful Teacher On Technique, Trust, and Responsiveness in the Classroom by Stephen Brookfield and Higher Education Computer Science – A Manual of Practical Approaches by Jenny Carter. I did mention them in the statement of teaching philosophy in section 1. My second objective is to be more inclusive with respect to different types of minority groups. This will require attending the appropriate workshop, and going over the relevant literature to understand the struggles and suggestions for solutions.

A Appendix

The appendix will have the workshops I have attended as well as the certificates received, two sample marking feedback (each page is a different assignment and different student). Also, I have attached a sample course outline, along with

Table 6: Workshops attended from Sep 2018 to Feb 2020

#	Workshop Title	Date
01	TA DAY 2018	2018-09-08
02	Marking Madness: Tips & Tricks for Effective Grading	2018-09-08
03	Getting to Know Sakai Brock's Learning Management System	2018-09-08
04	Computer Science TA/Marker Grader Training	2018-09-26
05	Human Rights & Equity	2018-10-06
06	Working with International Students	2018-10-06
07	Universal Design for Learning: Drawing Edition	2018-10-20
08	The Magic of Feedback	2018-10-20
09	Ethical Dilemmas	2019-02-09
10	Compassionate TAs Advocating for students dealing with loss	2019-02-09
11	Supporting Academic Integrity with Your Students	2019-03-02
12	Promoting Sustainable Development within the Classroom	2019-03-02
13	Reflecting on a Semester of Teaching	2019-03-16
14	2019 TA Reception	2019-04-09
15	Discussion Techniques to Promote Conversation	2019-03-30
16	Socrative Online Quizzes	2019-03-30
17	Instructional Strategies 101	2019-09-21
18	Ethical Dilemmas	2019-09-21
19	Helping Students Learn	2019-09-07
20	Energizers	2019-09-07

Continued on next page

Table 6: Workshops attended from Sep 2018 to Feb 2020 (Continued)

21	TA Day - Rapid Rounds	2019-09-07
22	Questioning Strategies to Support Learning	2019-10-05
23	Awakening A Human Rights Teaching Philosophy	2019-10-05
24	The Magic of Feedback	2019-11-02
25	Teaching & Accessibility	2019-11-02
26	Statement of Teaching Philosophy	2020-01-18
27	Discussion Techniques for Seminar	2020-01-18
28	Documenting Your Teaching	2020-02-01
29	Diversity and the Classroom	2020-02-15
30	Workshop Change - Teaching Assistants: Roles and Responsibilities	2020-02-15
31	Navigating Multiple Identities for TAs	2020-02-29
32	Compassionate TAs Advocating for Students Dealing with Loss	2020-02-01
33	Supporting Academic Integrity with your Students	2020-02-29

```
1 package Assign_7;
2
3
4   import BasicIO.*;                 // for IO classes
5   import static BasicIO.Formats.*; // for field formats
6   import static java.lang.Math.*;  // for math constant
7
8
9     /** This class ...
10    *
11    * @author [redacted]
12    * @version 1.0 (Nov. 2018)
      */
13
14      public class Nhl {
15      private ASCIIDataFile    nhldata;
16      private BasicForm        display;
17      private ASCIIOutputFile  newnhlData;
18      private ReportPrinter    report;
19
20    // instance variables
21
22
23    /** This constructor ...
24
25    public Nhl ( ) {
26      Team aTeam;
27      int  button;
28      int gF;
29        int gA;
30        int oldFor;
31        int oldAgainst;32       int points;
33      String team;
34
35
36        nhldata = new ASCIIDataFile();
37        display = new BasicForm("Enter","Bye");
38        newnhlData = new ASCIIOutputFile();
39        report = new ReportPrinter();
40        buildForm();
41        setUpReport();42       points = 0;
43          for ( ; ; ) {
44          aTeam = new Team(nhldata);
45          if ( nhldata.isEOF() ) break;46         fillForm(aTeam);
47             button = display.accept();
48             if ( button == 0 ) {
49             display.setEditable("gF", true); //Makes it so you can enter a Goals For
               value
50             display.setEditable("gA",true); //Makes it so you can enter a Goals
               Against  value
51             gF = display.readInt("gF"); // Reads the Goals For value
52             gA = display.readInt("gA"); // Reads the Goals Against value
53             points = aTeam.play(gF,gA); // Calculates points earned for that team
54
55            }
56            switch (button) {
57            case 1: {  //Bye
58
```

Very well done!
Line 48 is an if statement that checks if the user pressed the Enter button. It is correct. Then, on line 56, you use a switch statement that only checks the case where the Bye button is pressed. It is still correct but you could have simple organized your code so that you would use only the switch statement, like this:

```
switch (button){
   case 0: //Enter button is pressed.
      //Copy the code in the if statement you had on
      //line 48 and paste all the code here.
      //Once the code is pasted, you MUST put
      break;
      //The break is needed, if it is not there,
      //it will run all the cases below it.
   case 1: // Bye button is pressed.
      //Copy and paste the code you had on line 57.
      //You dont need to break; since it is the last
      //statement.
}
```

In terms of your comments, they are can improve. Comment the class header, constructor and methods. Keep in mind, the parameters of the methods should also be commented using the @param keyword. Also, if a method returns a value, the return value should be commented.
Here is an example for commenting:

```
/*
 * This method will multiply two numbers
 * and return the result
 *
 * @param x first number
 * @param y second number
 * @return result of x times y
*/
private int multiply(int x, int y){
  return x * y;
}
```

Oh, comment all of your classes that you write.

```
1 package Assign_3;
2
3
4     import Media.*;               // for Turtle and TurtleDisplayer
5     import java.awt.*;            // for Color objects and methods
6     import static java.lang.Math.*;  // for math constants and functions
7     import static java.awt.Color.*;  // for Color constants
8
9
10        /** This class draws a city with 3-6 buildings with 5-15 floors each
11        *
12        * @author [redacted]
13        *
14        * @version 1.0 (Sept 2018)
15 */
16 public class CityScape {
17    18
19            Turtle yertle;
20            TurtleDisplayer display;
21
22    /** This constructor creats turtle and builds a city                    */
23
24    public CityScape ( ) {
25
26                        yertle = new Turtle();
27                        yertle.setSpeed(2);
28                        display = new TurtleDisplayer(yertle, 500, 500);
29                        int buildAmt = 7;
30                        while (buildAmt > 6) {
31                        buildAmt = (int)(Math.random()*6 + 3);
32                        }
33                        drawBuilding(buildAmt);
34
35       display.close();
36
37    }; // constructor
38 39    40
41                              /** This method draws buildings
42                              * @param amt
43                              - given amount of buildings
44                              */
45
46    private void drawBuilding ( int amt ) {
47
48                    int x = -(35*amt);
49                    System.out.println(amt);
50
51                          for (int i = 0; i < amt; i++) {
52                          yertle.moveTo(x, -200);
53                          yertle.penDown();
54                          int windowAmt = 16;
55                          while (windowAmt > 15){
56                          windowAmt = (int)(Math.random()*15 + 5);
57                          }
58                          System.out.println(windowAmt);
59                          for (int j = 0; j < 2; j++){
60                          yertle.forward(70);
```

Excellent job! :)
Very good commenting as well as usage of parameters. Clean code that is straightforward :)
Very impressed!
Keep in mind that you should always run your project before you zip it and submit it. I did run the .drjava file and it didn't even compile because it would in a different package (rather than package Assign3;)
Also, (this is just a note for better practice) when choosing the random number, you could have used the following:
int buildAmt=(int)(random()*4)+3;
instead of:
iint buildAmt = 7;
while (buildAmt > 6) {
buildAmt = (int)(Math.random()*6 + 3);
}
and the same applies for windowAmt: change
int windowAmt = 16;
while (windowAmt > 15){
windowAmt = (int)(Math.random()*15 + 5);
}
to
int windowAmt=(int)(random()*11)+5;