

Appendix

Representative written comments of the anonymous survey by students on their self-assessment of the scientific inquiry and communication (SIC) module.

Survey question	Student comments
1. Experimental design by replicates, randomization, control	<ul style="list-style-type: none"> <input type="checkbox"/> The chance to design an experiment was fun, exciting and very useful. Perhaps a little more on information and a few tips could be provided before students select their bacteria-spice for the project. <input type="checkbox"/> I had a very vague idea about how the actual experimentation procedure was done. But after working on this lab it helped elucidate concepts in such a concrete manner that it is easy to relate with the experiment. <input type="checkbox"/> After the lab I really knew the purpose of the replicate and how would it affect my data and I knew how the control serves in the research. <input type="checkbox"/> I already learned a lot of material about scientific inquiry and communication during my year in Foundation,^a but this course has helped to learn about things that I have not encountered in Foundation such as how to design posters and why are they as important as research papers. <input type="checkbox"/> I was sort of familiar with the general lab procedures from the labs I did in high school as part of IB course, but I got to really understand some stuff about designing experiments after doing this module.
2. Choice of statistical test	<ul style="list-style-type: none"> <input type="checkbox"/> Really helpful! It would be beneficial if there were additional (optional) classes on Stats for those who're unfamiliar with this branch of science. <input type="checkbox"/> I still feel confused about the statistical testing, I would really like to see more than one example for every test, and more exercises <input type="checkbox"/> I did not know such tests existed until we did this experiment and were exposed to the different statistical tests. Also, in the process of deciding which test would be most suitable for our experiment, I found out how organized experiments and research can be. <input type="checkbox"/> I found the diagram for statistical tests very clear and easy to use.
3. Conclusion on statistical test results	<ul style="list-style-type: none"> <input type="checkbox"/> By the experience gain this course I was able to know the difference between alternative and null hypotheses and how they contribute to the overall study with the statistical testing. <input type="checkbox"/> My knowledge of how to interpret data grew vastly and today I am able to interpret data with reasonable conclusions regarding the experiments I and others make. <input type="checkbox"/> I have learned a lot about the tabular value and the alpha value and when to reject a research hypothesis and when not to.
4. Literature search from online databases	<ul style="list-style-type: none"> <input type="checkbox"/> This might have been the easiest part. But, it was hard to find research relating to what you need in a short time. <input type="checkbox"/> I had difficulty searching for the information I needed. I believe DeLib^b should have an independent module instead of being integrated into other subjects, as the explanation was not sufficient to help me use the databases properly.

	<input type="checkbox"/> I already learned everything I was taught this year from my year in foundation.
5. Writing in a professional tone	<input type="checkbox"/> It is hard to manage using a scientific language all the way in a specific order. <input type="checkbox"/> I was already capable of writing with a scientific tone. <input type="checkbox"/> It was useful to write using this type of language, as this text was relatively short. I believe it's a good practice for future, more complicated assignments. <input type="checkbox"/> This module has helped me a lot to practice my scientific writing skills.
6. Citing literature	<input type="checkbox"/> I had a lot of experience in my background to cite accordingly <input type="checkbox"/> Citing was very clear and you know what you shall site and where on the research paper.
7. Writing and designing scientific posters	<input type="checkbox"/> Although it is very time consuming, maybe more than one poster per semester will help us be much better in writing them. <input type="checkbox"/> This proved to be a new area which I can improve my communication skills in a professional environment. <input type="checkbox"/> Designing the poster was a good experience, but I believe that students should need to have a mini-presentation of their work to further improve communication skills
8. Poster presentation skills	<input type="checkbox"/> No real mentoring of the ways and specificities of presenting. <input type="checkbox"/> Don't personally enjoy presentations, but the atmosphere was relaxed and we were guided through. The tips were useful as well. <input type="checkbox"/> It gave me confidence, and I realized that explaining our study to others helped me understand what I was presenting better. After presenting, I had a much better understanding of my own study. <input type="checkbox"/> It was hard to know from where to start and how since people were coming at different times standing together. <input type="checkbox"/> I have presented a poster before (in high school), but it wasn't a scientific poster. I found the tips given before the poster session to be very helpful, especially as some instructions were completely new to me.
9. Scientific research as part of medical career	<input type="checkbox"/> I have a slight idea about the nature of conducting research. <input type="checkbox"/> Definitely interested although the process seems relentlessly long. But it was fun! <input type="checkbox"/> I performed a very limited amount of research at high school, but I was aware of the general guidelines. This module (along with the DeLib module) developed my search skills and helped me conduct more refined research.

^aThere were 14 students in this first year premedical class who attended one year of nonmatriculating foundation curriculum.

^bDeLib, Distributed library, is the library located at the Qatar campus of the Weill Cornell Medicine.