

Department of Physics

Survey of Current Graduate Students: 2013

The following outlines the results of a survey conducted between September 15th and November 5th, 2012. A total of 15 current graduate students from the Department of Physics were invited to participate. A total of 12 students (80% of the invitees) completed the survey.

A. Learning Outcomes

To what extent does your academic program contribute to developing your strength in the following:

1. Working effectively with others

	Frequency	Valid Percent	
Very much	3	25.0	
Quite a bit	7	58.3	
	Sub-Total:	83.3	Mean: 3.08
Some	2	16.7	
Total	12	100.0	

2. Writing clearly and effectively

	Frequency	Valid Percent	
Very much	6	50.0	
Quite a bit	4	33.3	
	Sub-Total:	83.3	Mean: 3.25
Some	1	8.3	
Very little	1	8.3	
Total	12	100.0	

3. Speaking clearly and effectively

	Frequency	Valid Percent	
Very much	5	41.7	
Quite a bit	4	33.3	
	Sub-Total:	75.0	Mean: 3.08
Some	2	16.7	
Very little	1	8.3	
Total	12	100.0	

4. Thinking critically and analytically

	Frequency	Valid Percent	
Very much	9	75.0	
Quite a bit	3	25.0	
Total	12	100.0	Mean: 3.75

5. Solving complex real-world problems

	Frequency	Valid Percent	
Very much	4	33.3	
Quite a bit	6	50.0	
	Sub-Total:	83.3	Mean: 3.08
Some	1	8.3	
Very little	1	8.3	
Total	12	100.0	

6. Having a broad spectrum of knowledge

	Frequency	Valid Percent	
Very much	5	41.7	
Quite a bit	5	41.7	
	Sub-Total:	83.3	Mean: 3.25
Some	2	16.7	
Total	12	100.0	

7. Designing and implementing independent research

	Frequency	Valid Percent
Very much	8	66.7
Quite a bit	3	25.0
	Sub-Total:	91.7
Some	1	8.3
Total	12	100.0

Mean:
3.58

8. Applying problem solving skills

	Frequency	Valid Percent
Very much	9	75.0
Quite a bit	2	16.7
	Sub-Total:	91.7
Some	1	8.3
Total	12	100.0

Mean:
3.67

9. Analyzing ideas, experiences, methods and data

	Frequency	Valid Percent
Very much	7	58.3
Quite a bit	4	33.3
	Sub-Total:	91.7
Very little	1	8.3
Total	12	100.0

Mean:
3.42

10. Synthesizing ideas, information or experiences into new understandings or methods

	Frequency	Valid Percent
Very much	7	58.3
Quite a bit	3	25.0
	Sub-Total:	83.3
Some	2	16.7
Total	12	100.0

Mean:
3.42

11. Evaluating points of view, decisions, or information sources

	Frequency	Valid Percent
Very much	3	25.0
Quite a bit	6	50.0
	Sub-Total:	75.0
Some	3	25.0
Total	12	100.0

Mean:
3.00

12. Recognizing the limits to your knowledge

	Frequency	Valid Percent
Very much	5	41.7
Quite a bit	4	33.3
	Sub-Total:	75.0
Some	3	25.0
Total	12	100.0

Mean:
3.17

B. Program

Please indicate the extent to which you agree with the following statements:

1. There is an adequate range of non-required/elective course offerings in my program every year

	Frequency	Valid Percent
Agree	5	41.7
	Sub-Total:	41.7
Unsure/Neutral	5	41.7
Disagree	1	8.3
Strongly disagree	1	8.3
Total	12	100.0

Mean:
3.17

2. Required courses are consistently available when I need to take them

	Frequency	Valid Percent
Strongly agree	4	33.3
Agree	6	50.0
	Sub-Total:	83.3
Unsure/Neutral	1	8.3
Disagree	1	8.3
Total	12	100.0

Mean:
4.08

3. Library holdings and other library resources relating to my program are adequate

	Frequency	Valid Percent
Agree	5	41.7
	Sub-Total:	41.7
Unsure/Neutral	5	41.7
Disagree	2	16.7
Total	12	100.0

Mean:
3.25

4. Teaching facilities and equipment used in my program are adequate

	Frequency	Valid Percent
Strongly agree	2	16.7
Agree	5	41.7
	Sub-Total:	58.3
Unsure/Neutral	3	25.0
Disagree	2	16.7
Total	12	100.0

Mean:
3.58

5. The program meets the expectations I had when I first enrolled in it

	Frequency	Valid Percent
Strongly agree	3	25.0
Agree	6	50.0
	Sub-Total:	75.0
Unsure/Neutral	2	16.7
Disagree	1	8.3
Total	12	100.0

Mean:
3.92

C. Teaching

Please indicate the proportion of courses in your program that exhibit the following characteristics:

1. Generally, grading is fair and well explained

	Frequency	Valid Percent
All	6	50.0
Most	5	41.7
	Sub-Total:	91.7
Some	1	8.3
Total	12	100.0

Mean:
3.42

2. Questions and alternate viewpoints are encouraged

	Frequency	Valid Percent
All	6	50.0
Most	4	33.3
	Sub-Total:	83.3
Some	2	16.7
Total	12	100.0

Mean:
3.33

3. Course instructors are readily available for consultation

	Frequency	Valid Percent
All	7	58.3
Most	3	25.0
	Sub-Total:	83.3
Some	1	8.3
None	1	8.3
Total	12	100.0

Mean:
3.33

4. Course instructors provide high quality teaching

	Frequency	Valid Percent
All	3	25.0
Most	7	58.3
	Sub-Total:	83.3
Some	2	16.7
Total	12	100.0

Mean:
3.08

5. Course instructors create a climate that encourages learning

	Frequency	Valid Percent
All	5	41.7
Most	5	41.7
	Sub-Total:	83.3
Some	2	16.7
Total	12	100.0

Mean:
3.25

6. Course instructors encourage students to be independent learners

	Frequency	Valid Percent
All	7	58.3
Most	4	33.3
	Sub-Total:	91.7
Some	1	8.3
Total	12	100.0

Mean:
3.50

D. Academic Advising

1. When you have needed advice about your program, have you been able to speak to someone associated with your program who could help you?

	Frequency	Valid Percent
Always	10	83.3
Usually	2	16.7
Total	12	100.0

Mean:
3.83

2. When you obtained advice, how would you rate the quality of advising that you received?

	Frequency	Valid Percent
Excellent	3	25.0
Good	6	50.0
	Sub-Total:	75.0
Fair	3	25.0
Total	12	100.0

Mean:
3.00

E. Graduate Support

Please indicate the extent to which you agree with the following statements:

1. The amount of funding that I am receiving for my graduate program is adequate

	Frequency	Valid Percent
Strongly agree	1	8.3
Agree	3	25.0
	Sub-Total:	33.3
Unsure/Neutral	4	33.3
Disagree	3	25.0
Strongly disagree	1	8.3
Total	12	100.0

Mean:
3.00

2. Have you held a Teaching Assistant position?

	Frequency	Valid Percent
Yes	12	100.0

3. If yes, to what extent would you say the experience has been an important part of your development as a graduate student?

	Frequency	Valid Percent
To a great extent	5	41.7
To some extent	6	50.0
	Sub-Total:	91.7
Not very much	1	8.3
Total	12	100.0

Mean:
3.33

4. If yes, to what extent would you say the Teaching Assistant duties are manageable given your program requirements?

	Frequency	Valid Percent
To a great extent	1	8.3
To some extent	9	75.0
	Sub-Total:	83.3
Not very much	1	8.3
Not manageable	1	8.3
Total	12	100.0

Mean:
2.83

5. Have you held a Research Assistant position?

	Frequency	Valid Percent
Yes	7	58.3
No	5	41.7
Total	12	100.0

6. If yes, to what extent would you say the experience has been an important part of your development as a graduate student?

	Frequency	Valid Percent
To a great extent	3	42.9
To some extent	3	42.9
	Sub-Total:	85.7
Not very much	1	14.3
Total	7	100.0

Mean:
3.29

7. If yes, to what extent would you say the Research Assistant duties are manageable given your program requirements?

	Frequency	Valid Percent
To a great extent	1	14.3
To some extent	4	57.1
	Sub-Total:	71.4
Not very much	2	28.6
Total	7	100.0

Mean:
2.86

8. Have you held a Research Fellowship position?

	Frequency	Valid Percent
Yes	5	41.7
No	7	58.3
Total	12	100.0

9. If yes, to what extent would you say the experience has been an important part of your development as a graduate student?

	Frequency	Valid Percent
To a great extent	3	60.0
To some extent	1	20.0
	Sub-Total:	80.0
Not very much	1	20.0
Total	5	100.0

Mean:
3.40

10. If yes, to what extent would you say the Research Fellowship duties are manageable given your program requirements?

	Frequency	Valid Percent
To a great extent	1	20.0
To some extent	2	40.0
	Sub-Total:	60.0
Not very much	2	40.0
Total	5	100.0

Mean:
2.80

F. Graduate Supervision

Please indicate the extent to which you agree with the following statements:

1. My thesis/MRP Supervisor is providing the support I need to complete my thesis/MRP

	Frequency	Valid Percent
Strongly agree	7	58.3
Agree	2	16.7
	Sub-Total:	75.0
Unsure/Neutral	2	16.7
Strongly disagree	1	8.3
Total	12	100.0

Mean:
4.17

2. My thesis/MRP Supervisor is available for guidance with my thesis/MRP

	Frequency	Valid Percent
Strongly agree	7	58.3
Agree	2	16.7
	Sub-Total:	75.0
Unsure/Neutral	2	16.7
Strongly disagree	1	8.3
Total	12	100.0

Mean:
4.17

3. My thesis/MRP Supervisor provides excellent feedback on my thesis/MRP

	Frequency	Valid Percent
Strongly agree	6	54.5
Agree	3	27.3
	Sub-Total:	81.8
Unsure/Neutral	1	9.1
Strongly disagree	1	9.1
Total	11	100.0

Mean:
4.18

4. My thesis/MRP Supervisor provides feedback on my thesis/MRP in a timely manner

	Frequency	Valid Percent
Strongly agree	6	54.5
Agree	1	9.1
	Sub-Total:	63.6
Unsure/Neutral	2	18.2
Disagree	1	9.1
Strongly disagree	1	9.1
Total	11	100.0

Mean:
3.91

G. Supervisory Committee

Please indicate the extent to which you agree with the following statements:

1. My Supervisory Committee is providing the support I need to complete my theses/MRP

	Frequency	Valid Percent
Strongly agree	3	25.0
Agree	8	66.7
	Sub-Total:	91.7
Unsure/Neutral	1	8.3
Total	12	100.0

Mean:
4.17

2. My Supervisory Committee is available for guidance with my thesis/MRP

	Frequency	Valid Percent
Strongly agree	4	33.3
Agree	7	58.3
	Sub-Total:	91.7
Unsure/Neutral	1	8.3
Total	12	100.0

Mean:
4.25

3. My Supervisory Committee provides excellent feedback on my thesis/MRP

	Frequency	Valid Percent
Strongly agree	3	27.3
Agree	6	54.5
	Sub-Total:	81.8
Unsure/Neutral	2	18.2
Total	11	100.0

Mean:
4.09

4. My Supervisory Committee provides feedback on my thesis/MRP in a timely manner

	Frequency	Valid Percent
Strongly agree	3	27.3
Agree	4	36.4
	Sub-Total:	63.6
Unsure/Neutral	2	18.2
Disagree	2	18.2
Total	11	100.0

Mean:
3.73

H. Research

Please indicate the extent to which you agree with the following statements:

1. I am satisfied with the opportunities I have to collaborate on research with others associated with my program

	Frequency	Valid Percent	Mean: 3.67
Strongly agree	2	16.7	
Agree	5	41.7	
	Sub-Total:	58.3	
Unsure/Neutral	4	33.3	
Disagree	1	8.3	
Total	12	100.0	

2. I am satisfied with the opportunities I have to engage in independent research as part of my program

	Frequency	Valid Percent	Mean: 4.08
Strongly agree	4	33.3	
Agree	5	41.7	
	Sub-Total:	75.0	
Unsure/Neutral	3	25.0	
Total	12	100.0	

3. I am satisfied with the opportunities I have to present my research at conferences

	Frequency	Valid Percent	Mean: 3.50
Strongly agree	3	25.0	
Agree	3	25.0	
	Sub-Total:	50.0	
Unsure/Neutral	4	33.3	
Disagree	1	8.3	
Strongly disagree	1	8.3	
Total	12	100.0	

4. I am satisfied with the opportunities I have to publish my research

	Frequency	Valid Percent	Mean: 3.75
Strongly agree	3	25.0	
Agree	4	33.3	
	Sub-Total:	58.3	
Unsure/Neutral	4	33.3	
Disagree	1	8.3	
Total	12	100.0	

5. I am satisfied with the quality of the office space provided to me as a graduate student

	Frequency	Valid Percent	Mean: 3.75
Strongly agree	3	25.0	
Agree	6	50.0	
	Sub-Total:	75.0	
Disagree	3	25.0	
Total	12	100.0	

6. I have been able to get adequate access to the research equipment that I need

	Frequency	Valid Percent
Strongly agree	2	18.2
Agree	5	45.5
	Sub-Total:	63.6
Unsure/Neutral	2	18.2
Disagree	2	18.2
Total	11	100.0

Mean:
3.64

7. I have been able to get adequate access to the research space that I need

	Frequency	Valid Percent
Strongly agree	3	27.3
Agree	6	54.5
	Sub-Total:	81.8
Unsure/Neutral	1	9.1
Disagree	1	9.1
Total	11	100.0

Mean:
4.00

8. I have been able to get adequate access to the technical support I need

	Frequency	Valid Percent
Strongly agree	3	30.0
Agree	5	50.0
	Sub-Total:	80.0
Unsure/Neutral	1	10.0
Disagree	1	10.0
Total	10	100.0

Mean:
4.00

I. Overall Evaluation

1. Based on your experiences, how would you describe the overall quality of your program?

	Frequency	Valid Percent
Excellent	3	25.0
Very good	5	41.7
Good	2	16.7
	Sub-Total:	83.3
Fair	2	16.7
Total	12	100.0

Mean:
3.75

I. Overall Evaluation

2. What are some of the strengths of your program?

-Access to world class collaborators -The freedom to travel to external research facilities

All professors and all students are willing to provide assistance. Equipment is well maintained and available.

Availability of professors, strength of expertise in a wide variety of areas within condensed mater physics.

collaboration between groups high supervisor/student ratio

Everyone wants to have fruitful research results.

Good courses (variety of subjects, thorough material coverage), helpful and knowledgeable faculty.

I've seen no particular strength. The only thing to mention is the relatively small department which makes the communication with the profess much easier.

it is small and help is accessible

Small department, very friendly and approachable professors. Collaboration is good among the other grad students

The availability of the experimental research. Also the possibility of having help with different physics problems as the professors have divers majors.

3. In what ways might the program be improved?

-A few more biophysics courses at both the undergraduate and graduate level

Adequate funding may improve many things.

If there is any intent to improve the program, I'd suggest to develop the department by recruiting younger faculty and increasing the research funds. The collaboration between research groups should be raised. Research groups must be formed. Seminar courses must become mandatory for graduate students. More general seminars should be conducted. Post-doctoral fellows must be recruited.

Improve laboratory scheduling practices.

Increasing the breath of courses offered for upper year and graduate students (ie, advanced optics, geophysics, or fluid mechanics)

It would be improved strongly if the idea of research groups was taken more seriously. I mean having these groups with a common research interest organized under a special name and having a regular presentations etc.

more collaboration.

more course offerings

More information and awareness about on Posters, Conferences, and Grants. The experimental labs need to be more organized and cleaned!!!!!!!! This is the biggest issue I have with the physics department.

There isn't enough equipment and material (even very simple things like glue, beakers, and the such) to provide rapid research as I have seen and partly experienced during my study at the University of Waterloo

4. What have you learned from the faculty members and courses in your programs that you consider particularly valuable/rewarding?

-The need for strong writing skills -That Biophysics is a melting pot of the 3 natural sciences and the freedom to explore them all to answer important questions

Applications of the various types of magnetism; insight into research topics and practices.

As an experimental physicist, I've learned a lot from the experimental course with Dr. Razavi and learning the ins and outs of research politic

How to research independently. How to problem solve effectively and efficiently for both experimental and theoretical work.

Lab techniques and the value of sharing new ideas

Moat of the courses I took were directly related to my experimental part of my research.

optical properties of solids via a graduate course in advanced electrodynamics.

Patience and hard work.

Rudiments to do research.

5. Do you have any further comments about your program?

I have some difficulties with my main scientific supervisor. In other respects I can estimate my program perfectly well.

It is small which makes the university believe that it can cut funding, but the truth is physics is no longer something that can be done as a garage hobby as it was 60 years ago. It requires lots of expensive equipment and material to get any research that could contribute to the world and published in journals. Money is always a big constraint, and probably we could be much better off if we shared equipment more with other departments instead of contracting jobs to other departments. a student machine shop would be invaluable as I have seen at u of Waterloo.

Only about the Library. It is better if we had a advanced books available in the small library in the department.

Professors have very low budgets. If Brock University cares about the department of physics at all, more funding for conducting research must become available. I hope the department overcomes its difficulties and exits its present dormant situation.

The physics program at Brock is excellent and I am proud to be one of its students. Employ a schedule or plan to keep all the experimental lab organized and clean.