## Department of Physics

Survey of Graduate Alumni: 2013

The following outlines the results of a survey conducted between September $15^{\text {th }}$ and November 5th, 2012. A total of 25 graduate alumni from the Department of Physics were invited to participate. A total of 5 alumni ( $20 \%$ of the invitees) completed the survey.

## A. Learning Outcomes

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

1. Working effectively with others

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Very much (4) | 3 | 60.0 |
|  | Sub-Total: | $\mathbf{6 0 . 0}$ |
| Some (2) | 1 | 20.0 |
| Very little (1) | 1 | 20.0 |
| Total | 5 | 100.0 |

2. Writing clearly and effectively

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Very much (4) | 3 | 60.0 |
| Quite a bit (3) | Sub-Total: | 20.0 |
|  | 1 | $\mathbf{8 0 . 0}$ |
| Very little (1) | 5 | 20.0 |
| Total |  | 100.0 |

Mean:
3.20
3. Speaking clearly and effectively

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency |  |
| Very much (4) | 3 | Valid Percent |
| Quite a bit (3) | 1 | 60.0 |
|  | Sub-Total: | 20.0 |
| Very little (1) | 1 | 80.0 |
| Total | $\mathbf{1}$ | 20.0 |

4. Thinking critically and analytically

|  |  |  |
| :--- | :--- | ---: |
|  |  |  |
|  | Frequency |  |

5. Solving complex real-world problems

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Very much (4) | 3 | 60.0 |
| Quite a bit (3) | Sub-Total: | 20.0 |
|  | Mean: | $\mathbf{8 0 . 0}$ |


| Very little (1) | 1 | 20.0 |
| :--- | ---: | ---: |
| Total | 5 | 100.0 |

6. Having a broad spectrum of knowledge

|  | Frequency | Valid Percent |
| :--- | ---: | ---: |
| Very much (4) | 3 | 60.0 |
|  | Sub-Total: | Mean: |
| Some (2) | 2 | $\mathbf{6 0 . 0}$ |
| Total | 5.20 |  |

7. Designing and implementing independent research

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Very much (4) | 3 | 60.0 |
| Quite a bit (3) | $\mathbf{1}$ | 20.0 |
|  | Sub-Total: | $\mathbf{8 0 . 0}$ |
| Very little (1) | 1 | $\mathbf{2 0 . 0}$ |
| Total | 5 | 100.0 |

## 8. Applying problem solving skills

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency |  |
| Very much (4) |  | Valid Percent |
| Quite a bit (3) | 3 | 60.0 |
| Total | 2 | 40.0 |

9. Analyzing ideas, experiences, methods and data

|  |  |  |
| :--- | :--- | ---: |
|  | Frequency | Valid Percent |
| Very much (4) | 3 | 60.0 |
| Quite a bit (3) | 2 | 40.0 |
| Total | 5 | $\mathbf{1 0 0 . 0}$ |

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

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency |  |
| Very much (4) |  | Valid Percent |
| Quite a bit (3) | 2 | 40.0 |
| Total | 3 | 60.0 |

11. Evaluating points of view, decisions or information sources

|  | Frequency | Valid Percent |
| :---: | :---: | :---: |
| Very much (4) | 3 | 60.0 |
| Quite a bit (3) | 1 | 20.0 |
|  | Sub-Total: | 80.0 |
| Some (2) | 1 | 20.0 |
| Total | 5 | 100.0 |

12. Recognizing the limits to your knowledge

| Frequency | Valid Percent |
| :--- | :--- |


| Very much (4) | 3 | 60.0 |
| :--- | ---: | ---: |
| Quite a bit (3) | 2 | 40.0 |
| Total | 5 | $\mathbf{1 0 0 . 0}$ |

## B. Program

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

1. Required courses were consistently available when I needed to take them

|  | Frequency |  |
| :--- | ---: | ---: |
|  |  | Valid Percent |
| Strongly agree (5) | 1 | 20.0 |
| Agree (4) | 4 | 80.0 |
| Total | 5 | $\mathbf{1 0 0 . 0}$ |

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

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency |  |
| Agree (4) | Valid Percent |  |
|  | Sub-Total: | 40.0 |
| Unsure/Neutral (3) | 1 | $\mathbf{4 0 . 0}$ |
| Disagree (2) | 1 | 20.0 |
| Strongly disagree (1) | $\mathbf{1}$ | $\mathbf{2 0 . 0}$ |
| Total | 1 | 20.0 |

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

|  | Frequency |  |
| :--- | ---: | ---: |
|  |  | Valid Percent |
| Strongly agree (5) | 1 | 20.0 |
| Agree (4) | 3 | 60.0 |
|  | Sub-Total: | $\mathbf{8 0 . 0}$ |
| Unsure/Neutral (3) | 1 | 20.0 |
| Total | 5 | 100.0 |

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

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Strongly agree (5) | 1 | 20.0 |
| Agree (4) | 3 | 60.0 |
|  | Sub-Total: | $\mathbf{8 0 . 0}$ |
| Disagree (2) | 1 | 20.0 |
| Total | 5 | 100.0 |

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

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Strongly agree (5) | 1 | 20.0 |
| Agree (4) | 3 | 60.0 |
|  | Sub-Total: | Mean: |
| Unsure/Neutral (3) | 1 | $\mathbf{8 0 . 0}$ |
| Total | $\mathbf{4 . 0 0}$ |  |

## C. Teaching

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

1. Generally, grading was fair and well explained

|  |  |  |
| :---: | :---: | ---: |
| Most (3) | Frequency | Valid Percent |

2. Questions and alternate viewpoints were encouraged

|  |  |  |
| :--- | :--- | ---: |
|  | Frequency | Valid Percent |
| All (4) | 3 | 60.0 |
| Most (3) | 2 | 40.0 |
| Total |  | $\mathbf{3}$ |

3. Course instructors were readily available for consultation

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| All (4) | 3 | 60.0 |
| Most (3) | 2 | 40.0 |
| Total | 5 | $\mathbf{1 0 0 . 0}$ |

Mean: 3.60
4. Course instructors provided high quality teaching

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| All (4) | 2 | 40.0 |
| Most (3) | 2 | 40.0 |
|  | Sub-Total: | Mean: |
| Some (2) | 1 | 80.0 |
| Total | 5.20 |  |

5. Course instructors created a climate that encouraged learning

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| All (4) | 2 | 40.0 |
| Most (3) | Sub-Total: | 40.0 |
|  | 1 | $\mathbf{8 0 . 0}$ |
| Some (2) | 5 | 20.0 |
| Total |  | 100.0 |

Mean:
6. Course instructors encouraged students to be independent learners

|  |  |  |
| :---: | :---: | :---: |
| All (4) | Frequency | Valid Percent |
| Mean: |  |  |

## D. Academic Advising

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

|  |  |  |
| :--- | ---: | ---: |
| Always (4) | Frequency | Valid Percent |


| Usually (3) | 1 | 20.0 |
| :--- | ---: | ---: |
| Total | 5 | $\mathbf{3 . 8 0}$ |

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

|  | Frequency |  |
| :--- | ---: | ---: |
|  | Valid Percent |  |
| Excellent (4) | 2 | 40.0 |
| Good (3) | 2 | 40.0 |
|  | Sub-Total: | $\mathbf{8 0 . 0}$ |
| Fair (2) | 1 | 20.0 |
| Total | 5 | 100.0 |

## E. Graduate Support

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

1. The amount of funding that I received for my graduate program was adequate

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Agree (4) | 1 | 20.0 |
|  | Sub-Total: | $\mathbf{2 0 . 0}$ |
| Unsure/Neutral (3) | 2 | 40.0 |
| Disagree (2) | 2 | 40.0 |
| Total | 5 | 100.0 |

2. Did you hold a Teaching Assistant position?

|  | Frequency | Valid Percent |
| :--- | :--- | ---: |
| Yes |  | 4 |
| No | 1 | 80.0 |
| Total | 5 | 20.0 |

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

|  |  |  |
| :---: | :---: | :---: |
|  | Frequency | Valid Percent |
| To a great extent (4) |  | $\mathbf{1 0 0 . 0}$ |

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

|  |  |  |
| :--- | :--- | ---: |
|  | Frequency | Valid Percent |
| To a great extent (4) |  | $\mathbf{3}$ |
| To some extent (3) | $\mathbf{1}$ | $\mathbf{2 5 . 0}$ |
| Total | 4 | $\mathbf{1 0 0 . 0}$ |

Mean:
3.75
5. Did you hold a Research Assistant position?

|  |  |  |
| :--- | :--- | ---: |
|  | Frequency | Valid Percent |
| Yes |  | 2 |
| No | 3 | 40.0 |
| Total | 5 | 60.0 |

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

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| To a great extent (4) |  | 2 |

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

|  |  |  |
| :--- | :--- | ---: |
|  | Frequency | Valid Percent |
| To a great extent (4) |  | 2 |

8. Did you hold a Research Fellowship position?

|  |  |  |
| :--- | :--- | ---: |
|  | Frequency | Valid Percent |
| Yes |  | 1 |
| No | 4 | 20.0 |
| Total | 5 | 80.0 |

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

|  |  |  |
| :---: | :---: | ---: |
|  | Frequency | Valid Percent |
| To a great extent (4) |  | 100.0 |

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

|  |  |  |
| :---: | :---: | ---: |
|  | Frequency | Valid Percent |
| To a great extent (4) |  | 100.0 |

## F. Graduate Supervision

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

1. My thesis/MRP Supervisor provided the support I needed to complete my thesis/MRP

|  | Frequency | Valid Percent |
| :--- | ---: | ---: |
| Strongly agree (5) | 2 | 50.0 |
| Agree (4) | 1 | 25.0 |
|  | Sub-Total: | $\mathbf{7 5 . 0}$ |
| Unsure/Neutral (3) | 1 | 25.0 |
| Total | 4 | 100.0 |

Mean:
4.25
2. My thesis/MRP Supervisor was available for guidance with my thesis/MRP

|  | Frequency | Valid Percent |
| :--- | :--- | ---: |
| Strongly agree (5) |  | 7 |
| Agree (4) | 1 | 75.0 |
| Total | 4 | 25.0 |

Mean:
3. My thesis/MRP Supervisor provided excellent feedback on my thesis/MRP

|  | Frequency |  |
| :--- | :--- | ---: |
|  |  | Valid Percent |
| Strongly agree (5) | 1 | 25.0 |
| Agree (4) | 3 | 75.0 |
| Total | 4 | $\mathbf{1 0 0 . 0}$ |

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

|  | Frequency |  |
| :--- | :--- | ---: |
|  |  | Valid Percent |
| Strongly agree (5) | 1 | 25.0 |
| Agree (4) | 3 | 75.0 |
| Total | 4 | $\mathbf{1 0 0 . 0}$ |

Mean: 4.25

## G. Supervisory Committee

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

1. My Supervisory Committee provided the support I needed to complete my thesis/MRP

|  | Frequency |  |
| :--- | ---: | ---: |
|  | Valid Percent |  |
| Strongly agree (5) | 1 | 25.0 |
| Agree (4) | Sub-Total: | 50.0 |
|  | 1 | $\mathbf{7 5 . 0}$ |
| Disagree (2) | 4 | 25.0 |
| Total |  | 100.0 |

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

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Strongly agree (5) | 1 | 25.0 |
| Agree (4) | Sub-Total: | 50.0 |
|  | 1 | $\mathbf{7 5 . 0}$ |
| Disagree (2) | 4 | 25.0 |
| Total | 100.0 |  |

Mean: 3.75
3. My Supervisory Committee provided excellent feedback on my thesis/MRP

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Agree (4) | 3 | 75.0 |
|  | Sub-Total: | $\mathbf{7 5 . 0}$ |
| Disagree (2) | 1 | 25.0 |
| Total | 4 | 100.0 |

Mean:
4. My Supervisory Committee provided feedback on my thesis/MRP in a timely manner

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Agree (4) | 3 | 75.0 |
|  | Sub-Total: | $\mathbf{7 5 . 0}$ |
| Unsure/Neutral (3) | 1 | 25.0 |
| Total | 4 | 100.0 |

Mean: 3.75

## H. Research

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

1. I was satisfied with the opportunities I had to collaborate on research with others associated with my program

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Strongly agree (5) | $\mathbf{1}$ | 25.0 |
| Agree (4) | $\mathbf{1}$ | $\mathbf{2 5 . 0}$ |
|  | Sub-Total: | $\mathbf{5 0 . 0}$ |
| Unsure/Neutral (3) | $\mathbf{1}$ | 25.0 |
| Disagree (2) | $\mathbf{1}$ | 25.0 |
| Total | 4 | 100.0 |

Mean:
2. I was satisfied with the opportunities I had to engage in independent research as part of my program

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency |  |
| Strongly agree (5) |  | Valid Percent |
| Agree (4) | 2 | 50.0 |
| Total | 2 | 50.0 |

3. I was satisfied with the opportunities I had to present my research at conferences

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency |  |
| Strongly agree (5) | Valid Percent |  |
| Agree (4) | 1 | 33.3 |
|  | Sub-Total: |  |
| Strongly disagree (1) | 1 | 33.3 |
| Total | $\mathbf{6 6 . 7}$ | Mean: |

4. I was satisfied with the opportunities I had to publish my research

|  |  |  |
| :--- | ---: | ---: |
|  |  |  |
|  | Frequency | Valid Percent |
| Strongly agree (5) | 1 | 33.3 |
| Agree (4) | 1 | 33.3 |
|  | Sub-Total: | Mean: |
| Unsure/Neutral (3) | $\mathbf{1}$ | $\mathbf{6 6 . 7}$ |
| Total | 3 | 33.3 |

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

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Strongly agree (5) | 2 | 50.0 |
| Agree (4) | 1 | 25.0 |
|  | Sub-Total: | $\mathbf{7 5 . 0}$ |
| Unsure/Neutral (3) | 1 | $\mathbf{4 . 2 5}$ |
| Total | 4 | 100.0 |

6. I was able to get adequate access to the research equipment that I needed

|  | Frequency |  |
| :--- | ---: | ---: |
|  | Valid Percent |  |
| Strongly agree (5) | 2 | 40.0 |
| Agree (4) | Sub-Total: | 40.0 |
|  | 1 | $\mathbf{8 0 . 0}$ |
| Unsure/Neutral (3) | 5 | 20.0 |
| Total |  | 100.0 |

7. I was able to get adequate access to the research space that I needed

|  | Frequency | Valid Percent |
| :--- | :--- | ---: |
| Strongly agree (5) |  | 50.0 |
| Agree (4) | 2 | 50.0 |
| Total | 2 | $\mathbf{1 0 0 . 0}$ |

Mean:
8. I was able to get adequate access to the technical support I needed

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Strongly agree (5) | 2 | 66.7 |
| Agree (4) | $\mathbf{2}$ | 33.3 |
| Total | 3 | $\mathbf{1 0 0 . 0}$ |

Mean:
4.67

## I. Overall Evaluation

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

|  | Frequency |  |
| :--- | :--- | ---: |
| Excellent (5) | 2 | Valid Percent |
| Very Good (4) | 1 | 40.0 |
| Good (3) | 1 | 20.0 |
|  | Sub-Total: | 20.0 |
| Fair (2) | 1 | 80.0 |
| Total | 5 | 20.0 |

Mean:
3.80

## J. Life After Brock: Employment

1. What is your current employment status?

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency | Valid Percent |
| Not employed | 3 | 60.0 |
| Employed in a part-time <br> position | 1 | 20.0 |
| Employed in a full-time <br> position | 1 | 20.0 |
| Total | 5 | 100.0 |

2. If employed, what is your current position?

Data Centre Technician
Supply Teacher
3. If currently employed, to what extent does your job utilize the skills, abilities, and knowledge that you gained in your program of study?

|  |  |  |
| :--- | :--- | ---: |
|  | Frequency |  |
| Not very much (2) |  | Valid Percent |
| Not at all (1) | 1 | 50.0 |
| Total | 1 | 50.0 |

4. If you are not employed, what is the main reason?

|  | Frequency |  |
| :--- | ---: | ---: |
|  |  | Valid Percent |
| Enrolled in further education | 2 | 66.7 |
| Other |  | 1 |

Other: Personal responsibilities but also enrolled in Phd at Brock.

## K. Life After Brock: Further Education

1. Since graduating from Brock, have you enrolled in a course of study lasting more than six months?

|  | Frequency | Valid Percent |
| :--- | :--- | ---: |
| Yes |  | 3 |
| No | 2 | 60.0 |
| Total | 5 | 40.0 |

2. Please indicate the major reason(s) for continuing formal studies. (Please indicate all that apply).

|  | Frequency |  |
| :--- | ---: | ---: |
| To satisfy job/career <br> requirements |  | Percent |
| To further pursue <br> intellectual/academic <br> development | 3 | 60.0 |
| Lack of suitable employment <br> opportunities | 3 | 60.0 |

3. What degree/diploma/certificate are/were you pursuing?

|  |  |  |
| :--- | ---: | ---: |
|  | Frequency |  |
| Teacher certification (BEd) |  | Valid Percent |
| PhD degree | 1 | 25.0 |
| Total | 3 | 75.0 |

## I. Overall Evaluation

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

1- Relevant courses to my MSc project 2- Availability of my supervisors when needed 3-Good working facilities 4-Available fund to order materials and technical parts for my research

1. professor's availability 2 . lab equipment 3 . seminars

Being a small program, and having small research groups meant that it was always easy to find a principle investigator/professor to speak to about courses, research, ideas for future work, etc. You never felt as if you were lost in the crowd.

Small classes
There was a fantastic faculty and staff that was approachable, helpful, and friendly. The faculty and staff would always listen to the needs and requests of the students and make appropriate accomadations.

## 3. In what ways might the program be improved?

1- Extending the program into other research areas of Physics 2- Offering grad courses in other areas of Physics expecially in experimental physics rather than theoretical Physics 3-Expanding the Physics building

1. a good course (not workshop) for writing a scientific paper 2. opportunity for a research assistant/associate positions 3 . help with assignments (guidance/methods on how to solve hard problems) not to use old solutions or to depend on mercy of the students that have found the solutions (support independent learning) or to depend on internet sources....

The faculty needs to work together on projects rather than independantly; it could really strengthen the productivity of the program.
4. What did you learn from the faculty members and courses in your programs that you consider particularly valuable/rewarding?

All courses that I took are absolutely rewarding. These courses were also combined with advanced mathematical analysis that can be used in many other areas. Profs spend large amount of time with students either in class or elsewhere. They are patient, welcoming to new ideas, encouraging and of course knowledgeable.
passion integrity independent thinking
The knowledge and drive that I have received.
Written and verbal skills were very important to the faculty. They taught us how to be prepared to speak at conferences, and how to eloquently write. The faculty also taught these skills to the undergraduate students. These skills are very important in the future work of graduate students, whether they go into academia or into the workforce, so I find having learned these skills very rewarding.

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

I am glad I was at Brock for Physics.
I have no doubt that I obtained a solid background in many areas of Condensed Matter Physics by doing my MSc project and grad courses at Physics Department of Brock University. I am very satisfied that I chose Brock University.

No, just thanks.

