

# Graduate Program Opportunities

## Biological Engineering

Supervised by Prof. Amar Mohanty and Prof. Manjusri Misra

### Research Area: Bio-based Polymeric Materials and Engineering

### Funded Graduate Opportunities – PhD/M.A.Sc./MEng in Biological Engineering

The Doctor of Philosophy, Master of Applied Science & Master of Engineering in Biological Engineering is a full-time program based on coursework at the School of Engineering and research intense program conducted at the Bioproducts Discovery and Development Centre, University of Guelph.

<b>Location:</b>	University of Guelph, Guelph, Ontario, Canada
<b>Entry Terms:</b>	Fall, Winter or Summer Semester
<b>Deadlines:</b>	Applications will be accepted on an ongoing basis
<b>Degree Requirements:</b>	Masters degree requires Bachelors degree in Science or Engineering PhD requires thesis-based Master degree in Engineering

### About BDDC

BDDC is a well-resourced facility, unique to Ontario, provides opportunity for companies, entrepreneurs, and research organizations to partner with university-based researchers toward development of commercial new biomaterials, bioplastics, biocomposites, biochemical and process technologies.

The BDDC is staffed by graduate and post-doctoral students working in the areas of polymer science, chemical engineering, advanced material science and applied microbiology.

Commercial application of research results is a guiding principle for the BDDC. Innovations coming from the BDDC help companies in their efforts to reduce greenhouse gas emissions and their environmental footprint.

Visit us at

[bioproductscentre.com](http://bioproductscentre.com)

University of Guelph is an equal opportunity employer.

### Graduate Opportunities

There are several openings for graduate students wishing to pursue a Graduate degree in the research areas listed below:

- Bioplastics and Biobased Polymers
- Biocomposites (Natural Fibre Composites) and Polymer Blends
- Green Composites including recyclability, durability and biodegradability studies
- Biobased Nanocomposites and Nanoblends
- 3D Printing of Bioplastics and Biocomposites
- Biomass and Biomaterials Sustainability
- Biomedical Applications for Bioplastics and Biocomposites
- Value-added Biobased Materials from the Coproducts/Byproducts of Biofuel Industries
- Biodegradability (Compostability)

Research component of the graduate school requirements will be conducted within the Bioproducts Discovery and Development Centre (BDDC), University of Guelph. The candidate will have the opportunity to work with senior scientists from different areas (materials science and engineering, chemical engineering, mechanical engineering, polymer chemistry, packaging and plant agriculture) and will have the chance to work collaboratively with industrial partners.

### Qualifications

1. For entry in the PhD program in Biological Engineering (School of Engineering), candidates must hold a Masters degree in Engineering (Thesis-based)
2. If your first language is not English, you will be required to submit the results of a standardized language test\*. Please see the chart for [English Language Proficiency Requirements](#).

([www.uoguelph.ca/graduatestudies/future/international/english](http://www.uoguelph.ca/graduatestudies/future/international/english))

\*[Language Proficiency Department Requirements](#) for the School of Engineering.

([www.uoguelph.ca/engineering/grad/application-process](http://www.uoguelph.ca/engineering/grad/application-process))

## How to Apply

### Application to the BDDC selection committee

Please include the following in your pre-application package:

1. A reverse-chronologically complete CV (Curriculum Vitae) which includes:
  - a. Training information and Degrees obtained - Including high school (including start and end date - month and year)
  - b. Thesis title of your degrees (if applicable)
  - c. Name of adviser for your degrees (if applicable)
  - d. GPA or percent average (when including GPA please provide what it is out of i.e. 4.36/5.0)
  - e. Timeline and summary of gaps between degrees starting from high school (to be included in the training information and degrees section)
  - f. List of courses during your education most relevant to this position,
  - g. English Language Proficiency results and breakdown (IELTS, TOEFL, etc.)
  - h. List of your publications and presentations, and
  - i. Contact information for three references.;
2. A cover letter outlining qualifications for the position and earliest date of availability;
3. A detailed 2-page summary of the research topics you are interested to pursue based on the research conducted at the BDDC (information can be found on the website [bioproductscentre.com](http://bioproductscentre.com)). Please include how your background will help you to succeed on these topics and how you plan to learn about the aspects you don't know.
4. Any scientific publications (of your choice) that you may have completed from your previous research in pdf format.

Please send your pre-application package with the above documents to [bddcjobs@uoguelph.ca](mailto:bddcjobs@uoguelph.ca) copying [mohanty@uoguelph.ca](mailto:mohanty@uoguelph.ca) and [mmisra@uoguelph.ca](mailto:mmisra@uoguelph.ca) with the subject heading "Graduate Studies in Biological Engineering"

### Professor Amar Mohanty



Director, Bioproducts Discovery & Development Centre (BDDC)  
Premier's Research Chair in Biomaterials & Transportation  
University of Guelph Research Leadership Chair  
Professor, Department of Plant Agriculture & School of Engineering  
University of Guelph; ON, Canada, N1G 2W1  
[mohanty@uoguelph.ca](mailto:mohanty@uoguelph.ca)  
[Personal School of Engineer Website:](http://www.uoguelph.ca/engineering/people/amar-mohanty)  
[www.uoguelph.ca/engineering/people/amar-mohanty](http://www.uoguelph.ca/engineering/people/amar-mohanty)

### Professor Manjusri Misra



Professor, Biological Engineering  
School of Engineering  
(Cross appointed: Department of Plant Agriculture)  
University of Guelph, Guelph, Ontario, N1G 2W1  
[mmisra@uoguelph.ca](mailto:mmisra@uoguelph.ca)  
[Personal School of Engineering Website:](http://www.uoguelph.ca/engineering/content/faculty/manjusri-misra)  
[www.uoguelph.ca/engineering/content/faculty/manjusri-misra](http://www.uoguelph.ca/engineering/content/faculty/manjusri-misra)

## Frequently Asked Questions

To serve you better, the Office of Graduate Studies has created a [Frequently Asked Questions \(FAQ\)](http://www.uoguelph.ca/graduatestudies/future/faq) ([www.uoguelph.ca/graduatestudies/future/faq](http://www.uoguelph.ca/graduatestudies/future/faq)) section to assist you with the admissions process.