

# Certificate Program in Biomedical Engineering

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2023/24 ECED Orientation

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# Certificate Overview

- ◆ Biomedical Engineering is the application of engineering techniques to problems in medicine and human health
- ◆ The Certificate in Biomedical Engineering recognizes ECED students who specialize their studies in the biomedical field by
  - ◆ Doing a senior year project on a biomedical topic
  - ◆ Taking the biomedical engineering technical elective (ECED4760 - Biomedical Engineering)
  - ◆ Taking one course outside of ECED that provides exposure to the foundations of medicine (ANAT1010 - Basic Human Anatomy) or physiology (PHYL1001 - Human Physiology 1)
  - ◆ Taking a core course of relevance to Biomedical Engineering (ECED4502 - Digital Signal Processing)

The screenshot shows the Dalhousie University website's Academic Calendars section. The top navigation bar includes the Dalhousie University logo, the name 'DALHOUSIE UNIVERSITY', and a 'Support Dal' link. Below the navigation bar, the 'Academic Calendars' page is displayed, with tabs for 'Undergraduate Calendar', 'Graduate Calendar', 'Dentistry, Law and Medicine Calendar', and 'PDF Versions'. The main content area is titled 'Academic Calendars' and shows a breadcrumb trail: 'Undergraduate 2019/2020 > Certificates > Certificate in Biomedical Engineering'. The main heading is 'CERTIFICATE IN BIOMEDICAL ENGINEERING'. Below this, the text reads: 'Certificate in Biomedical Engineering. This certificate is open to currently registered Dalhousie students in all Faculties; it will not be open for direct application.' The 'Certificate requirements' section lists: '1. The student must complete a minimum of 12 credit-hours consisting of the courses listed below and obtain a minimum grade of C in each course. Registration is subject to meeting pre-requisites.' A partial list of courses is visible: 'a. One of BIOL 1010, BIOL 1011, BIOL 1020, BIOL 1021 or BIOL'. On the right side, there is a sidebar menu with 'Academic Calendars' expanded to show 'Undergraduate 2019/2020' and a list of certificates including 'Certificate in Actuarial and Financial Mathematics', 'Certificate in Animal Behaviour', 'Certificate in Animal Welfare', 'Certificate in Applied and Computational Mathematics', 'Certificate in Aquaculture', and 'Certificate in Aquaculture and the Environment'.

<https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=129&chapterid=8666&topicgroupid=38336&loaduserdits=False>

# Certificate Details

- ◆ Register for the certificate through DalOnline
  - ◆ Student Profile -> Declare a Major and select Biomedical Engineering from the Certificate menu
- ◆ The Certificate is awarded along with your degree if you successfully complete the ECED program **and** meet all the requirements of the Certificate
- ◆ Full details on certificate requirements can be found at

<https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=129&chapterid=8666&topicgroupid=38336&loaduserdetails=False>

The screenshot shows a web browser window with the URL [registrar.dal.ca/forms/de](https://registrar.dal.ca/forms/de). The page displays a registration form with several sections: E-Mail, Program, Co-op, Major, 2nd Major, Minor, Second Minor, and Certificate. The Certificate dropdown menu is open, showing a list of options including Aquaculture (Agriculture), Organic Agriculture (Agriculture), Animal Welfare (Agriculture), Biomedical Engineering (highlighted in blue), Genetics & Molecular Biology (Agriculture), International Rural Development (Agriculture), Integrated Pest Management (Agriculture), Sustainable Development (Agriculture), Art History & Visual Culture, Computing in Arts & Social Sciences, Indigenous Studies, Intercultural Communication, Actuarial and Financial Mathematics, Animal Behaviour, Applied and Computational Mathematics, Aquaculture & the Environment, Data Analytics, Managing Data and Information, and Entrepreneurship and Innovation. A 'Submit Information' button is visible at the bottom of the form.

For questions about the Certificate, contact Rob Adamson [rob.adamson@dal.ca](mailto:rob.adamson@dal.ca)