Doctoral Program in Biomedical Science
School of Biomedical Sciences
The Monash University Program in Biomedical Science was established in 2015 to provide formal training for PhD students in a variety of practical, transferable skills. These skills will enhance the quality and efficiency of research activities and also position students well for a broad range of career pathways.

Goals of the Program

The Program has been designed to foster the development of the five core competencies identified as central to success in PhD research (Figure 1). The Program will assist students throughout their candidature and in future research careers by:

- Enhancing research skills and knowledge
- Enhancing organisational and professional skills
- Improving the quality of written work (including the thesis)
- Expediting completions

The Program will assist students in future non-research careers by:

- Enhancing communication skills
- Enhancing organisational and other professional skills
- Increasing awareness of transferable skills gained through research

Components of the Program

The Monash Doctoral Program in Biomedical Science is organised according to the Monash University Guidelines for “Graduate Research Professional Development”, one of three different graduate training models implemented across the university.

Students are required to complete 3 compulsory induction activities plus 120 hours of skills training, including:

- 80 hours of Graduate Researcher Development (GRD), offered centrally by the Monash Graduate Education (MGE)
- 40 hours of Discipline Enhanced Development (DED), offered by the School of Biomedical Sciences

Compulsory Induction Activities

All students must complete the following activities during their first year of candidacy:

- Monash Graduate Research Induction (online)
- Research Integrity (online)
- MBio Induction (face to face)

Graduate Researcher Development (the MGE component)

Students must complete 80 hours of central training activities, which are organised within the following categories or Learning Domains:

- Research Essentials (e.g. Preparing for confirmation)
- Managing your Career (e.g. CV and cover letter essentials)
- Publishing, Communication & Dissemination
- The Professional Toolkit (e.g. Project Management)
- Networking & Collaboration
- Leading People & Projects
- The International Experience
- Graduate Researchers who Teach

Details of specific GRD activities to be offered are listed at: http://intranet.monash.edu.au/graduate-education/doctoral-program/grad-res-dev.html

Discipline Enhanced Development (the Biomedical Science component)

Students must complete 40 hours of Biomedical Science training activities, chosen from those listed in Figure 2. Within the 40 hours of DED activities, all students are required to complete at least 12 hours of training in Cutting Edge Research Technologies, including doing the ~4 hours of ‘Introductory’ training during the first year of study. These activities will develop skills related to the platform technologies available at Monash.

The two levels of training are:

- Introductory: Introduction to Monash platform technologies
- Advanced: Hands-on practical and data analysis and/or data interpretation training for specific platform technologies.

Details of specific Biomedical Science DED activities are the MBio website: www.med.monash.edu/mbio-gradschool/biomed-sci-phd-program.html
Selection of Training Activities

You should discuss available training activities with your supervisors and, at milestone meetings, with your advisory panel. Factors you should consider are:

- your current competencies
- specific skill requirements for your PhD project
- competencies provided by the available activities (Figure 2)
- your future career goals

When to Complete Your Training Activities

Your training activities may be spread throughout your PhD candidature. In general, training will benefit your PhD research the most if it is completed early in candidature. We recommend completing:

- >50% of training requirements in year 1
- >80% of training requirements by end of year 2
- 100% of training requirements by end of year 3

All students should complete the ‘Introductory’ Cutting Edge Research Technologies training in their first year.

How to Register for Your Training Activities

Registration and tracking of training activities is performed through the Graduate Research Activity Management System (GRAMS), accessed through your my.monash portal.

You must be logged into my.monash with your student account in order to access GRAMS. To search and register for activities:

- Click ‘Search’ under ‘Activity Search’
- In the drop-down list, select the module in which you wish to search for activities and click on ‘Search’. A list of currently scheduled activities will show.

Several Quick Reference Guides are available to help you navigate GRAMS. These can be accessed on the GRAMS webpage: (http://intranet.monash.edu.au/migr/doctoral-program/grams.html) under the ‘Accessing and using GRAMS’ section.

- How to register for activities
- How to view registered activities and de-register
- How to access Reports on activities

If you have technical difficulties, or a query regarding the Compulsory or Graduate Researcher Development Modules, email: grams-enquiries@monash.edu

Documentation of Completed Training Activities

When you have completed training activities, they will be listed in the "My Completed GRD/DED Activities" reports available through your GRAMS account. These reports can be downloaded, printed to show your supervisor or advisory panel, and included in your CV or sent to potential employers. The activities will not be listed on your academic transcript.

Supervisors and GRAMS

Supervisors can use GRAMS to:

- view all of your students and their programs
- search for available activities and recommend them to students
- track student attendance at activities and hours completed
- monitor progress in activities

---

<table>
<thead>
<tr>
<th>Activity</th>
<th>Competencies</th>
<th>Max. credit hours</th>
<th>First scheduled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting Edge Research Technologies Platforms</td>
<td>✓ ✓ ✓ ✓</td>
<td>up to 20*</td>
<td>June 2015</td>
</tr>
<tr>
<td>Analysis of Current Literature (Journal Clubs)</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>10</td>
<td>Feb 2016</td>
</tr>
<tr>
<td>Effective Teaching Approaches (Demonstrator Training)</td>
<td>✓ ✓ ✓ ✓ ✓ ✓</td>
<td>10</td>
<td>Feb 2015</td>
</tr>
<tr>
<td>Written and Oral Communication skills</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>up to 20</td>
<td>April 2015</td>
</tr>
<tr>
<td>Scholarly Communication</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>up to 10</td>
<td>May 2015</td>
</tr>
<tr>
<td>Effective Management of a Biomedical Science Research Project</td>
<td>✓ ✓ ✓</td>
<td>15</td>
<td>May 2016</td>
</tr>
<tr>
<td>From Project to Product</td>
<td>✓ ✓ ✓ ✓ ✓ ✓</td>
<td>20</td>
<td>Aug 2015</td>
</tr>
<tr>
<td>Relevant Technical Training Programs</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>up to 10**</td>
<td>Ad hoc</td>
</tr>
</tbody>
</table>

*At least 12 hours is required for all students. **Prior approval from Program Director is required.

Figure 2. Discipline Enhanced Development activities in the Biomedical Sciences Program.