

BT5007

**Industrial
Placement**

**Course Handbook
2019-20**



**UNIVERSITY
OF ABERDEEN**

Contents

Introduction
Course Aims & Learning Outcomes
Course Teaching Staff
Assessments & Examinations
Problems with Coursework
Interim Reports – Instructions
Essay – Instructions
Thesis Preparation - Instructions
Course Evaluation
Information for Industrial Supervisors
Information for Academic Assessors
Industrial placement co-ordinator role and contact information
24 hour emergency contact number
Medical Sciences Common Grading Scale

Cover image:

Confocal micrograph of fluorescently labelled HeLa cells.

Nuclei are labelled in blue, tubulin in green and actin fibres in red.

Courtesy of:

Kevin Mackenzie

Microscopy and Histology Core Facility

Institute of Medical Sciences

University of Aberdeen

<http://www.abdn.ac.uk/ims/microscopy-histology>

Introduction

The main objective of the industrial placement year is to provide undergraduates with an opportunity to apply skills and knowledge acquired during levels 1-3 of their degree to practical problems in real-life situations. The placement project will help each student to develop useful skills which could improve employment prospects after graduation. Most employers value people who have developed the ability to be flexible and adaptable, work as part of a team, communicate with fellow employees, take initiative and responsibility and, when necessary, take the lead. Many of these qualities can be learned and developed via a work placement. Just as importantly, work experiences help each student to develop their own ideas regarding the career they want and perhaps the kind of work or employers they wish to avoid.

During your placement you must observe and follow the rules and regulations set by your employer. These will cover such matters as time keeping, safety regulations and sickness and absence procedures. This is important for both yourself and the university. You are likely to want a good reference from your industrial placement supervisor; this will be facilitated by observing company rules and regulations. Maintaining good relations with an organisation that provides us with work placements is greatly dependent on the work carried out by our students being of a high standard. Poor student placement performance reflects adversely on the University and adds to the difficulties of finding future placements for your successors.

While on placement try and adopt an enquiring attitude towards your work and try to learn as much as possible. Industrial supervisors almost always interpret student questions as a sign of interest. Shyness and reticence may be interpreted as a lack of interest.

This booklet has been produced to outline the basic assessment details that need to be addressed whilst on placement. You are encouraged to contact your academic tutor regularly during your placement year and to ensure that (s)he is shown draft copies of all written work prior to its submission. If you require any further information at any time during your placement year please do not hesitate to either contact your academic tutor or me.

I wish you all the best for your placement year.

Dr Ian Fleming
Industrial Placement Co-ordinator
i.n.fleming@abdn.ac.uk
01224 438357

Course Aims & Learning Outcomes

The General Aims of the Industrial Placement are to:

- Develop your laboratory technical skills (for laboratory based projects)
- Improve your research and planning skills. This includes experimental planning, time management, note keeping, data analysis and interpretation.
- Increase your expertise in specialised techniques (within the context of your industrial project)
- Improve your skills in presenting your work, both verbally and in written reports
- Provide opportunities to increase your interpersonal skills through collaboration with your supervisor and colleagues
- Provide insights into the skills required for effective project management
- Gain insight into the nature of industrial research and commercial organisations leading to the development of commercial products and services

The Principal Objectives for each student are:

- The successful completion of a one-year defined project(s) in relevant research and development. *Success is assessed using both academic and industrial criteria*
- Successful assembly and presentation of a thesis describing your work
- Work towards obtaining an excellent reference from the host supervisor, which will help to boost your prospects for securing a job or advanced studies after graduation

How you achieve these objectives will be an important topic of discussion with your host supervisor. You will gain some idea as to how your achievement will be measured by consulting the assessment forms on the course MyAberdeen site.

Generic Learning Outcomes

In addition to broadening your knowledge and experience of the subject area that you will be working in, your experimental work will enable you to expand your experimental design skills, problem-solving ability, enhance your numerical skills and ability to analyse data. Discussions with your supervisor and colleagues will provide opportunities to listen in a critical manner. In conjunction with extensive reading of relevant scientific papers, this should help to develop your judgmental and critical thinking skills, to enable you to distinguish what is important from what is relatively trivial. The opportunity to present your work to others and collaborate within your group will also enhance your communication skills. Working outside the taught environment will also promote self-management skills such as time-keeping and organising your own workload.

You should also work on improving your report writing skills and your ability to use computers to analyse data, although you will still need to interpret the data yourself. All reports must be word-processed (see guidelines below). This offers scope for you to experiment with format, layout etc. allowing opportunities to improve your written presentation skills.

Course Teaching Staff

Course Co-ordinator(s):

Dr Ian Fleming (i.n.fleming@abdn.ac.uk)

Assessments & Examinations

The timetable for submission of the thesis and poster, and completion of viva for the 2018-2019 industrial placement year is shown in the table below.

Assessment Unit	Assessor(s)	% Of Final Mark	To be completed by
Thesis	Industrial Supervisor	13.3	31 st August 2019
Thesis	Academic Assessors	26.7	31 st August 2019
Viva	Academic Assessors	40	30 th September 2019
Overall Performance	Industrial Supervisor	20	End of Placement
Online Blog and Reflective Account	Not assessed	0	Ongoing throughout placement
Poster	Not assessed. Opportunity to discuss your project with staff and students at Aberdeen university	0	31 st August 2019
Total		100%	

Supervisors should email their assessment forms and grades (forms are available in MyAberdeen or by email from the industrial placement co-ordinator), to the industrial placement co-ordinator, to arrive by the date shown above.

NB: Please note that if your thesis is not submitted by the deadline given above without justifiable cause (e.g. illness confirmed by medical certificate, detailed account by your industrial supervisor, etc.), there may be a deduction of marks. It is therefore in your best interest as well as your responsibility to keep both your industrial and academic supervisors informed if you have any problems in this respect.

First and Second Class Merit Certificates

First and Second Class Merit Certificates are normally awarded to students achieving CGS scores of A1-A5 and B1-B3, respectively (see the CGS descriptors). The Registry makes award of the certificates on receipt of the CGS marks from the School, and the award is entered in student records. No "certificates" as such are actually distributed.

Problems with Coursework

If students have difficulties with any part of the course that they cannot cope with alone they should notify the course coordinator immediately. If the problem relates to the subject matter general advice would be to contact your placement supervisor in the first instance. You may also wish to contact one of the following staff members:

- Course Co-ordinator (Dr Ian Fleming)
- Your academic Tutor for the MSci placement (BT5007)
- Your Personal Tutor (not BT5007 Tutor)
- Medical Sciences Disabilities Co-ordinator (Dr Derryck Shewan)

Thesis Preparation - Instructions

TWO BOUND copies of your Thesis are to be submitted to the Medical Sciences office in the Polwarth building (Jenna Reynolds) for assessment on your return to University for your honour's year.

Content

Length

The written text of your thesis should be between 6000 and 10000 words excluding tables, figures and diagrams, legends and reference list.

Format

Academic assessors will *expect* the thesis to take the form of a paper, though not in column layout, containing the following sections. Figures and tables must be integrated into the text (see instructions below). Each new section should commence on a new page:

1. Title
2. Acknowledgements
3. Summary / Abstract
4. Abbreviations
5. Introduction
6. Aims
7. Materials & Methods
8. Results
9. Discussion
10. References

Theses for non-lab based placements may not necessarily follow this format. Students doing non-lab placements are encouraged to discuss their thesis plans with their academic tutor well in advance of preparing their thesis.

Title

Your name and the title of the thesis should appear on the cover. A word count should be included on the title page of the thesis.

Summary / Abstract

Your summary should be up to 500 words in length (this is not included in the total word count) and should *summarise the entire project*, including the aims, what you did, and any conclusions you have drawn. You may find it appropriate to use numbered points. See the abstract of any published papers as an example.

Abbreviations

Provide a list of all the abbreviations used within the report. There is no need to include those in common use such as μL or mL. Include any which you think the reader may not understand such as abbreviated names for chemicals e.g. ATF2 - Activated transcription factor 2.

Introduction

The introduction should set the scene for your thesis. It should introduce the key topics that underpin your project so that anyone reading the thesis can gain a fundamental understanding of your project. Clearly explain the question that you were asking and why it is important. Make the question clear, stating how it fits into the broader world of your subject area. Do not overestimate your readers' familiarity with your field. Medical Sciences have become rather specialised and most of us are unable to keep pace with developments in all fields. This section should be interesting. If you bore the reader here, then you are unlikely to revive his/her interest in later sections. Tradition permits prose that is less dry than the scientific norm in the first few sentences so if want to wax lyrical about your topic, this is the place to do it. It is a good idea to write your introduction after you have written the main body of your thesis. As you will be unable to include all of the work you undertook during the year this will help you to identify the key topics that you need to include in the introduction rather than all of the topics that you could include.

NB: During the industrial placement year most, students generate too large a body of data to present all their experiments in this relatively short thesis. Some students also perform more than one project during their placement year. For these reasons, many students only present a fraction of their work in the thesis.

If this is the case, you can include a paragraph at the beginning of the Introduction to:

- summarise the different projects on which you have worked, and the proportion of time spent on each project;
- state any major findings; and
- state which project is the focus of this thesis and why.

This will be one of the points discussed in the interview with the Academic Assessors

Aims

This should be a very brief (100-200 word) summary of the question(s) the work described in the thesis sets out to answer.

Materials and Methods

This is often the easiest section to write and by starting with this section and your results section you can determine the scope of your thesis. This section should describe how your experiments were performed; it must **not** give the rationale for doing them. Remember that published methods **must** be referred to, and that these only need a brief description although

you should describe any modifications made to published methods. It is permissible to start each method with a short mention of what it is used for.

The materials and methods used should be presented in a logical order. This may not necessarily be the order in which you carried out the work. Materials, which may include cells, organisms, specialist chemicals etc, should be described in enough detail to allow the exact repetition of your experiments. Give only essential details of preparation of reagents and solutions and avoid giving long recipe-type lists. The important thing to remember is that it should be possible for a competent scientist to reproduce exactly what you have done by following your description. Your supervisors will guide you on this if you write a draft in good time.

..... 4 μ L 5 x First Strand Buffer (Gibco), 2 μ L 0.1 M DTT (Gibco), 1 μ L 10 mM dNTP mix (10 mM each of dATP, dGTP, dCTP and dTTP, Promega) and 0.5 μ L Superscript II (Gibco) were added and mixed gently by pipetting.

Remember **controls** are central to logical experimentation. Explain what is present or absent in any particular control (positive and negative). Most systems may have several controls; as with blanks, it is important that the reader understands what you mean by the term. In particular, never talk of **the** control; it suggests that you can only think of one.

If your project is not laboratory-based, you may have a different style of describing your materials and methods (if you are using a materials and methods section) – this should be discussed with your industrial supervisor and your tutor at the university in order that your work is presented in the most suitable manner.

Do not forget to identify clearly the statistical methods you have used.

Results

Your Results section should tell a "story", which leads the reader through the steps needed to logically answer the question(s) you posed in your Introduction. You will probably produce a large body of data during your placement year and length constraints will limit the amount of data you can present. You should therefore present the most **incisive** results.

The order in which you present your results can be as important in convincing your readers as what you actually say in the text. Your results section will probably be a mixture of **Text**, **Tables** and **Figures**.

Text: not all analyses or results warrant a Table or Figure. Some simple results are best stated in a single sentence, with data summarized parenthetically:

Egg production was higher for fish fed diet A (5893 +/- 87.8 eggs, n=50) than for those fed diet B (3216 +/- 92.2 eggs, n=49, p<0.01.)

Tables: Tables present lists of numbers or text in columns, each column having a title or label. Do not use a table when you wish to show a trend or a pattern of relationship between sets of values - these are better presented in a Figure.

Colour of Mouse	No. of Males	No. of Females	Total
White	52	47	99
Small brown patch	5	43	48
Large brown patch	15	24	39
Brown	49	47	96
Total Numbers	121	161	282

Figures: Figures are visual presentations of results and include, but are not limited to graphs, diagrams, photographs and drawings. Graphs are the most common type of figure and show trends or patterns of relationship.

The reader will only notice trends in figures that you bring to his/her attention so remember to do so in the text. Every figure and table included in the paper **must** be referred to from the text. Figures and tables should be embedded in the text, although you should try to avoid breaking up the text into small blocks; it may be better to have whole pages of text with figures and tables on their own pages.

Figures and tables are numbered independently, in the sequence in which you refer to them in the text, starting with Figure 1 and Table 1. If you alter the presentation sequence of the figures and tables, you must renumber them to reflect the new sequence. **Figures and tables should not appear until they have first been mentioned in the main text.**

Use sentences that draw the readers' attention to the relationship or trend you wish to highlight, referring to the appropriate figure or table only parenthetically:

e.g. Fish spawning rates were significantly higher after release into fast flowing rivers than slow flowing rivers (Fig. 4).

Samples 19, 29 and 82 were also clearly identified as B*27052 (Table 6).

Avoid sentences that give no information other than directing the reader to the figure or table:

e.g. Table 1 shows the mean weights for male and female students in Aberdeen and Stavanger during the years 2006 to 2013, inclusive.

When referring to a figure in the text, the word "Figure" is abbreviated as "Fig.", while "Table" is not abbreviated. Both words are spelled out completely in descriptive legends.

Any table or figure you present must be sufficiently clear, well-labelled, and described by its legend to be understood by your intended audience without reading the results section, i.e., it must be able to stand alone and be interpretable. If you are unsure whether your tables or figures meet these criteria, give them to a fellow student or colleague and ask them to interpret your results.

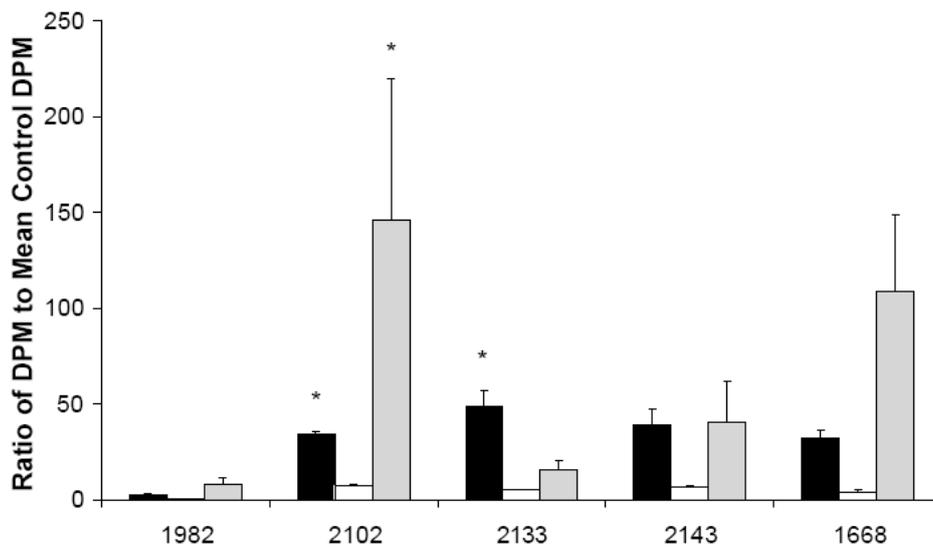


Fig. 5: Proliferation of PBL (black), head kidney (white) or spleen cells (grey) from naïve fish incubated *in vitro* in medium alone or with 1 mg mL⁻¹ non-CpG ODN 1982 or CpG ODN 2102, 2133, 2143 or 1668. Data are presented as the mean ratio of DPM for each sample to mean DPM for the control samples (\pm S.E.M.) from four fish. PBL and spleen cells incubated with CpG ODN 2102 exhibited a significantly higher ($P < 0.05$) proliferation ratio than head kidney cells incubated with CpG ODN 2102. PBL incubated with CpG ODN 2133 exhibited a significantly higher ($P < 0.05$) proliferation ratio than either head kidney or spleen cells incubated with CpG ODN 2133.

The position of the legend is also important: Table legends go above the body of the table and are left justified (tables are read from the top down). Figure legends go below the figure as graphs and other types of figures are usually read from the bottom up.

Remember when plotting means on a graph to always include error bars and state to what they refer (standard deviation (SD) or standard error of the mean (SEM)) in the legend and not to quote data to more significant figures than can be justified.

If at all possible, keep your results section to a statement of results, with supporting figures and tables, but provide linking paragraphs to say why you did experiments and to show how one led on to the next. It is not necessary to present this section in the order in which you performed the work.

Adapted from:

<http://abacus.bates.edu/~ganderso/biology/resources/writing/HTWtablefigs.html>

You may wish to consult this web site for more information on writing your thesis.

Discussion

Here you should make connections between your work and related research in published literature, speculate on overall mechanisms and suggest extensions of your experiments. Make certain your Discussion is not simply a reiteration of results. You must discuss what your results mean and place them in the context of the published literature.

Include suggestions for possible future work. It is usually best to incorporate these into the body of the Discussion, each appearing at the most appropriate place. The discussion enables you to place your work in the broader context of current industrial and academic research. If discussion of future industrial projects must be limited because of confidentiality restrictions - say so, then discuss any possible academic experiments that could be performed in principle (if not in practice). These points can be addressed in the interview with the academic assessors.

Business Aspect of your Placement

At the end of the discussion you should include a paragraph or two (about 500 to 750 words, which will count towards the overall word count) about the company in which you carried out your placement. You should explain what the company does, number of employees, location (local or global) etc. (this information should be freely available on any company website and should not cause any confidentiality issues) and how your research fitted into the overall aims of the company. You should feel free to hypothesise about possible effects of your research on the company (e.g. produce cure for cancer etc.) if the work could be continued in future. This is designed to ensure you know how your work fitted into the overall company objectives and that you understood the relevance of what you were doing.

References

Avoid excessive reliance on reviews or web sites. Scientific journals are best but do not cite anything you have not read – and make sure anything you do cite says what you say it does. It is important to cite the paper which publishes the original work. You cannot cite work as belonging to a particular author if that author was only referring to it from another paper himself.

You should use the Harvard reference style. Within the text, references should be given in the style:

- It has been demonstrated (Jones & Brown, 1972; Brown *et al*, 1973) that---
- Jones & Brown (1972) first determined the molecular mass of protein X. Brown *et al* (1973) showed that ---

In the bibliography references should be listed alphabetically according to the initial letter of the surname of the first author; where the same authors have published more than one paper, list them in the order in which their papers appeared. If necessary, use 'a' and 'b' e.g.

(Brown *et al*, 1990a). You should look at papers from a number of different journals to get an idea of the different styles of presenting references.

If you do need to cite information you retrieved from the internet you must distinguish to what type of information you are referring. The nature of the site will determine the method used to reference it:

Web sites with individual authors:

In text citation: (Burton, 2012)

Bibliography Citation: Burton, P.A. (2012) *Clinical Trials in USA*. Available at: <http://.....> (Accessed: 12 July 2013)

Web pages with organisations as authors:

In text citation: After identifying symptoms (National Health Service, 2012)

Bibliography Citation: National Health Service (2012) *Check your symptoms*. Available at: <http://.....> (Accessed: 12 July 2013)

Web pages with no authors:

In text citation: Diagrams of the systems used can be found online (Elisa methods in pictures, 2005)

Bibliography Citation: Elisa methods in pictures (2005) Available at: <http://....> (Accessed: 12 July 2013)

Web pages with no authors or titles:

In text citation: Video files may need to be compressed (<http://....>)

Bibliography Citation: <http://....> (2012) (Accessed: 12 July 2013)

Web pages with no dates:

In text citation: Compression may be required (<http://....html>. no date)

Bibliography Citation: <http://....> (no date) (Accessed: 12 July 2013)

More information is available in: Pears and Shields, (2013) *Cite Them Right: The Essential Referencing Guide* (Basingstoke, Palgrave Macmillan)

Non Lab-based Placements

Students carrying out a non-lab-based placement which does not enable the work to be written in the format detailed above should contact their University Tutor to discuss the format of their thesis early in their placement year. It is essential that your placement involves an aspect of research and discussing your thesis early will allow you to plan ahead and ensure you carry out sufficient research to enable you to submit a thesis. The assessment forms for non-lab theses are subtly different to those for lab-based theses. Do make sure that you make a note of all of the categories in the assessment form to make sure that you are matching your thesis plan to all of the assessment criteria.

Presentation

Theses should be typed double-spaced, one-sided on A4 paper in 10 to 12-point type (this will depend on the font used). Leave a margin of 35 mm on the left side for binding (or along the top if a table or diagram is to be mounted sideways on the paper). Leave a margin of 25 mm on the right side. Remember in laying out graphs to leave room for the numbers along the axes.

It is important to produce clear, well-planned diagrams. Photocopies can be made if you require a reduced size copy. If you intend to reduce the size of diagrams to half the size of the original, lines and lettering in the original must be twice the size you require in the final copy. Avoid fine shading or stippling that will not reproduce well. Be aware that large areas of solid black do not copy well. Also be aware that colour printing will be more expensive than black and white so it should be used only where necessary.

Start to prepare your thesis well in advance of the deadline and be realistic about your speed of production. You may also have to take into consideration any time spent on checking your thesis with regard to confidentiality by your placement company. This is often time consuming and you should make every effort to submit your thesis to your supervisor in order that this can be completed prior to the deadline for submission.

Make back-up copies of your computer files as you go along. **Computer problems do not justify late submission.**

Course Evaluation

Student Course Evaluation Forms (SCEF) will be distributed at the end of the placement year on you return to University. The forms should be completed and returned to the Undergraduate Teaching Secretary.

Comments that Students, Industrial Supervisors and Assessors wish to make before the end of the placement year, or any points you may wish to discuss, are welcome at any time during the year. You can contact the industrial placement co-ordinator by telephone or email (see Contact Information on page 21).

Information for Industrial Supervisors

Thank you for accepting a student from the University of Aberdeen into your organisation. To help you assess our student in a transparent and fair manner we draw your attention to:

- The overall assessment scheme and timetable for the student, beginning on page 5
- The supervisors' assessment forms which are available on MyAberdeen (the web site for the course) and by email from the industrial placement coordinator
- The instructions and format for the student's thesis on pages 7-15
- The information for academic assessors below
- Details of how to communicate with the industrial placement co-ordinator on page 19

You are warmly invited to contact the industrial placement co-ordinator at any time and for any reason. The University is happy to sign confidentiality agreements or to discuss alternative arrangements for the assessment of theses containing commercially-sensitive information.

Information for Academic Assessors

Academic assessors may wish to be reminded that:

1. The industrial placement thesis differs from an Honours thesis:
 - the data presented and interpreted usually represent only a fraction of the work undertaken by the student during the placement year; and
 - some data may be presented in outline for reasons of commercial security.
2. The thesis is assessed after reference to:
 - the notes for preparation of the industrial placement thesis (pages 7-15);
 - the marking scheme for industrial placement students (page 22). Please note that Industrial Placements are graded on the MSc (Level 5) scale; and
 - other undergraduate industrial placement theses.
3. The assessment of the thesis contributes 40% of the overall mark for the placement year.
4. After the Academic assessors have read the thesis the student will undergo a viva with a view to assessing primarily:
 - the constraints within which the student had to work to present the thesis;

- the level of supervision, project, & facilities available to the student;
- the contribution of the student to the direction the project work took during the placement year; and
- the ability of the student to place the project work within its academic and industrial context, including the further direction of work.

In addition, the viva is an opportunity to clarify any points of interpretation which have arisen during assessment of the thesis.

The primary aim of the viva is thus to ensure that a 'level playing field' of assessment can be achieved between students, who may be allocated varying levels of projects in widely different fields of study and widely different industrial settings which offer different facilities. The viva contributes 40% of the overall mark.

NB: The material dealt with in both thesis and interview is at all times to be treated as Commercial-in-Confidence information and in no circumstances is to be divulged to any third party.

Industrial placement co-ordinator role and contact information

- The **Industrial Placement Co-ordinator** is responsible for the University administration, co-ordination, monitoring and evaluation of the industrial placement.

Contact may be made by e-mail, fax or directly to the address below, or *via* the secretaries in the Medical Sciences office.

The industrial placement co-ordinator is also responsible for:

- development of contacts with companies willing to take placements;
- acting as a first point of contact for Industrial Supervisors;
- co-ordination of student applications for industrial placements;
- the preparation and distribution of this manual;
- maintenance of regular contact with students during their placements;
- collation of students' and supervisors' reports during the placements;
- organisation of academic assessment for final reports; and
- distribution and collation of the Course Assessment Form.

At various stages during the industrial placement students have deadlines for the submission of interim and final reports. These deadlines are specified in this Manual on page 5. If for *any reason* you are unable to meet these requirements you must contact the Industrial Placement Co-ordinator as soon as possible.

Dr Ian Fleming
Industrial Placement Co-ordinator
School Of Medicine, Medical Sciences & Nutrition
Institute of Medical Sciences
Foresterhill
University of Aberdeen
Aberdeen
AB25 2ZD

Direct Tel:	+44 (0) 1224 438357
Direct E-mail	i.n.fleming@abdn.ac.uk
School Tel:	+44 (0) 1224 437471
School E-mail:	medsci@abdn.ac.uk

24 Hour Emergency Contact Number

In the event of a **serious crisis situation** where you need to contact someone at the University, you may call

+ 44 (0)1224 27 30 27

University of Aberdeen International Emergency Number

This number is intended for use in a serious crisis situation only.

In the first instance, please always seek assistance from the local emergency services.

The telephone answering service is available 24 hours.

Calls may be made reverse charge.

When a call is received you will be asked for your contact details and a brief outline of the crisis. Please also state that you are on an industrial placement and ask that the Industrial Placement Coordinator is advised of your situation. Your details will be given to our Response Team who will call you back as soon as possible.

This service will operate during office hours and out of hours, and is manned on a voluntary basis by members of the University's Student Support Staff (Student Support Officer, Chaplain, Wardens etc).

University Policies

Students are asked to make themselves familiar with the information on key institutional policies which have been made available within MyAberdeen (<https://abdn.blackboard.com/bbcswebdav/institution/Policies>). These policies are relevant to all students and will be useful to you throughout your studies. They contain important information and address issues such as what to do if you are absent, how to raise an appeal or a complaint and indicate how seriously the University takes your feedback.

These institutional policies should be read in conjunction with this programme and/or course handbook, in which School and College specific policies are detailed. Further information can be found on the [University's Infohub webpage](#) or by visiting the Infohub.

The information included in the institutional area for 2019/20 includes the following:

- Absence
- Appeals & Complaints
- Student Discipline
- Class Certificates
- MyAberdeen
- Originality Checking
- Feedback
- Communication
- Graduate Attributes
- The Co-Curriculum

Medical Sciences Common Grading Scale

Grade	Grade Point	Category	Honours Class	Description
A1	22	Excellent	First	<ul style="list-style-type: none"> Outstanding ability and critical thought Evidence of extensive reading Superior understanding The best performance that can be expected from a student at this level
A2	21			
A3	20			
A4	19			
A5	18			
B1	17	Very Good	Upper Second	<ul style="list-style-type: none"> Able to argue logically and organise answers well Shows a thorough grasp of concepts Good use of examples to illustrate points and justify arguments Evidence of reading and wide appreciation of subject
B2	16			
B3	15			
C1	14	Good	Lower Second	<ul style="list-style-type: none"> Repetition of lecture notes without evidence of further appreciation of subject Lacking illustrative examples and originality Basic level of understanding
C2	13			
C3	12			
D1	11	Pass	Third	<ul style="list-style-type: none"> Limited ability to argue logically and organise answers Failure to develop or illustrate points The minimum level of performance required for a student to be awarded a pass
D2	10			
D3	9			
E1	8	Fail	Fail	<ul style="list-style-type: none"> Weak presentation Tendency to irrelevance Some attempt at an answer but seriously lacking in content and/or ability to organise thoughts
E2	7			
E3	6			
F1	5	Clear Fail	-	<ul style="list-style-type: none"> Contains major errors or misconceptions Poor presentation
F2	4			
F3	3			
G1	2	Clear Fail/ Abysmal	-	<ul style="list-style-type: none"> Token or no submission
G2	1			
G3	0			