

B40A MSc/B40B PGDip

Clinical Nutrition

Course handbook

2022-2023

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## Welcome by the Course Director

I would like to welcome you to the School of Biosciences and to the MSc/PGDip Clinical Nutrition. My colleagues and I are very much looking forward to working with you over the next 12 months. I hope that your time in the School will be enjoyable, successful and rewarding.

The aims of our course are:

* To build upon your existing knowledge of science to provide a detailed and in-depth education in dietetics or clinical nutrition based upon the research and scholastic excellence of the academic staff. You will learn the underlying principles and evidence base, defining concepts, theories and methods, and the current knowledge and development of the subject, within a research-led environment.
* To enable you to understand and gain a detailed knowledge of human nutrition and develop a confident, scientific approach to answering questions through theoretical analysis, formulation of hypotheses, practical experimentation, data analysis and communication of results.
* To develop skills in science, information technology (IT), communication, teamwork, self-management, and problem solving to postgraduate level.

This course handbook provides you with an overview of the MSc/PGDip Clinical Nutrition programmes and includes guides to all of the modules that you have the option of taking.

The handbook includes information about the assessments that you will be completing and important guidance about plagiarism, disability, and extenuating circumstances procedures. By following this link: [School Moodle site](https://moodle.nottingham.ac.uk/course/view.php?id=60552) you can access generic information applicable to all PGT students within the School of Biosciences. We strongly recommend that you familiarise yourself with this resource.

Dr Amanda Avery

Associate Professor & Course Director

## The School of Biosciences

The School of Biosciences is based in the Faculty of Science and is situated at the Sutton Bonington (SB) Campus, about 11 miles south of Nottingham. SB Campus is home to the School of Biosciences and the School of Veterinary Medicine and Science. The School of Biosciences comprises the Divisions of Agricultural and Environmental Sciences, Animal Sciences, Food, Nutrition & Dietetics and Plant and Crop Sciences. It is home to approximately 880 undergraduate and 370 research and taught postgraduate students. The School has a strong reputation for both research and teaching and constantly strives for excellence in both.

Sutton Bonington Campus has its own facilities for most sports and social activities, and these are available to all students in the School. A free shuttle bus service operates between all campuses to facilitate participation in activities and sports at University Park. The Enquiry Office in the Main Building SB, has details of when this service runs (see also: <http://www.nottingham.ac.uk/about/visitorinformation/busservices.aspx>).

A late night minibus service provided by the Student Union operates on request between the campuses each evening, Monday to Friday.

## The Division of Food, Nutrition & Dietetics

The MSc/PGDip in Clinical Nutrition is delivered within the Division of Food, Nutrition and Dietetic Sciences. Staff in the Division are research active and have interests in a broad array of research areas, including international public health nutrition, nutrient-gene interactions, foetal programming, molecular nutrition, the nutritional and processing quality of animal and plant products, nutritional assessment, diet-health interactions in humans and behavioural nutrition. The Division is engaged in internationally renowned research in collaboration with academic and industrial partners.

The Division hosts an active and lively series of seminars featuring external speakers and students on MSc courses are very much encouraged to attend these. The School of Biosciences provides generic academic support to all PGT students.

In addition to the MSc/PGDip Clinical Nutrition, the Division offers the following undergraduate and postgraduate programmes:

* BSc/MSci Nutrition and BSc/MSci Nutrition and Food Science
* Master of Nutrition and Dietetics (a 4-year integrated Masters course that leads to registration as a dietitian)
* MSc/PGDip Nutritional Sciences

## Staff in the Division

## Academic staff

|  |  |
| --- | --- |
| Head of Division |  |
| Associate Prof David Gray |  |
| Professors |  |
| Prof Tim Parr |  |
| Prof Andy Salter |  |
| Prof John Brameld |  |
| Associate Professors |  |
| Dr Amanda Avery |  |
| Dr Fiona McCullough |  |
| Dr Lisa Coneyworth |  |
| Assistant Professors |  |
| Dr Andreia Moura |  |
| Dr Jake Sallaway-Costello |  |
| Jane Musson |  |
| Jemma Orr |  |
| Dr Laura Birch |  |
| Dr Lucia Vazquez Rocha |  |
| Dr Matthew Elmes |  |
| Dr Pete Rose |  |
| Dr Preeti Jethwa |  |
| Sarah Ellis |  |
| Juliet Wilson |  |
| Dr Simon Welham |  |
|  |  |

## Technical team

|  |
| --- |
| Dr Kirsty Jewell |
| Cathy Wells |
| Louise Parsons |
| Mark Pope |

|  |  |
| --- | --- |
| Administrator |  |
| Kathy Lawson | [katherine.lawson@nottingham.ac.uk](mailto:katherine.lawson@nottingham.ac.uk) |

## Meet the Team

|  |  |
| --- | --- |
|  | **Amanda Avery (PG Course Director), RD** Amanda joined the University in 2009 assisting Fiona in developing and delivering new modules to be included as part of the Masters programmes. She has felt privileged to have supported the many participants who have taken the modules, seeing them gain confidence and improve their practice, improve service delivery by questioning current practice, progress in their careers as a consequence and inspire colleagues to also engage in the CPD options. The diversity of subjects covered makes the role particularly exciting – there is always something new to learn for all of us.  Amanda graduated from the University of Surrey in 1985 and spent over 20 years working as a primary care and public health dietitian before moving into academia. Areas of particular strength and interest include infant feeding, IBS, diabetes and weight management, the latter being her main research area. She has a number of papers published in peer reviewed journals.  Amanda has also supported many Masters research projects on a variety of topics and using different methodologies over her years in academia.  Andreia Moura, PhD  Andreia started her role as an **Assistant Professor in Clinical Nutrition** in October 2021. She has over 5 years of experience as a dietitian in Sao Paulo (Brazil) and internationally, focusing on the management of obesity, diabetes, and metabolic syndrome. Andreia holds a **MSc Nutrition and Public Health** from Ghent University (Belgium), after which she gained international public health experience as a Policy and Programmes intern at the **International Diabetes Federation** (IDF, Brussels). In November 2021 Andreia obtained a **PhD in Social Sciences specialized infamilies' healthy eating** from Aarhus University (Denmark). Her PhD was part of the EU project "Edulia: Bringing down barriers to children's healthy eating", in which she investigated healthy eating from the spectrum of the social sciences. Andreia's research activities involve sociology of (over)eating, behavioural techniques to improve public health, nudging strategies as well as food and nutrition interventions for families.  A person smiling for the camera  Description automatically generated with medium confidence  Jane Musson, RD  Jane commenced her role as Assistant Professor in Nutrition & Dietetics in 2019. Jane qualified from the University of Nottingham in 2014.  Over the 5 years before returning to the University, Jane has had a range of experiences as an acute Dietitian, most recently specialising in the areas of, inpatient Major Trauma and Gastrointestinal Surgery. Responsibilities included being part of a multidisciplinary team involved in regular MDT meetings, ward-rounds and training of ward/MDT staff. The roles include oral, enteral and parenteral nutrition, trauma injury/ wound healing advice, dietary advice for fistulas, high output stomas and bowel resections. Jane has also covered others caseloads such as liver disease, Hepato-Pancreatic-biliary disease and intestinal failure.  Jane enjoys teaching on both the undergraduate and postgraduate modules, as well as being a module convenor. She uses interactive and new teaching techniques to help students get closer to practice.  C:\Users\sbzlmh\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\Fiona McCullough photograph.jpg  Fiona Mccullough RD  Dr Fiona McCullough is the Director for Teaching & Learning within the School of Biosciences and an Associate Professor of Dietetics. She led the establishment of the post-registration dietetics education in 2007.  Fiona really enjoyed being involved in developing some of the modules and awards that Nottingham presently offers, to create a diverse portfolio of Continuous Professional Development (CPD) options, which are highly renowned and evaluated across the UK. Her role as a strategic leader in education was recently recognised by the HEA (Higher Education Academy) when she was awarded Principal Fellow status.  Fiona qualified as a dietitian in 1995 and has worked in both community and acute settings as a dietitian. After completing a PhD on the impact of vitamin A and iron status on the health of pre-school children, Fiona commenced an academic career and 16 years later, continues to derive the highest job satisfaction from helping students learn and so improve their understanding, competence and confidence! She has supervised many Masters and PhD research projects on a variety of topics over this time.  A person with blonde hair  Description automatically generated with medium confidence  Laura Birch, RD  Laura has 15 years’ experience as a UK Registered Dietitian. She has experience in paediatric dietetic care provision working in both acute and community NHS settings, industry experience working in the Research & Development team for a UK clinical nutrition company developing a range of specialist paediatric nutrition products and extensive experience as a Research Dietitian at the Bristol NIHR Biomedical Research Centre in Nutrition, Diet & Lifestyle, undertaking a wide range of research activities to optimise nutrition to improve the health of children with chronic disorders. She completed an NIHR Clinical Doctoral Research Fellowship award in 2022 to investigate the feasibility of glycaemic index dietary intervention for managing glucose abnormalities in cystic fibrosis.  Lucia Vazquez Rocha, PhD, RD  A person smiling for the camera  Description automatically generated with medium confidence  Lucia commenced her role as Assistant Professor in Nutrition & Dietetics in January 2022. She has over eight years of experience working as a dietitian in Mexico where she worked in clinical and community nutrition, teaching, and private practice. Lucia holds a Master’s degree in Clinical Nutrition from Universidad del Valle de Atemajac in Mexico and a PhD from the University of Nottingham, obtained in 2019. In 2020, she became an obesity expert by The World Obesity Federation. She also has collaborated with the International Life Sciences Institute (ILSI) Europe in the research group of Efficacy of Markers of insulin sensitivity and secretion.  C:\Users\sbzlmh\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\5DGS4RZZ\Kirsten Whitehead - cropped (2).jpgC:\Users\sbzlmh\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\Fiona McCullough photograph.jpg **Bruno Mafrici, RD** Bruno is a lead renal dietitian/team leader working at Nottingham University Hospitals NHS Trust. His workload includes patient with kidney disease in the acute (inpatients) and chronic (outpatient) setting. He also leads a team of 10 dietitians working in renal, stroke and respiratory settings.  Bruno qualified as a dietitian in 2002 at the University of Pavia, Italy and completed his MSc in Advanced Dietetic Practice at the University of Nottingham in 2013. Since then he has been involved within the Division of Food, Nutrition & Dietetics at the University of Nottingham, lecturing both undergraduates and postgraduate students. He is involved in helping to deliver the nutritional support module.  He is Chair of the Renal Nutrition group and a member of the Parenteral and Enteral Nutrition group of the British Dietetic Association.  His interests are clinical nutrition in patients with kidney disease, with a particular interest in bone management and the extended role of the renal dietitian. He has also has a strong interest in parenteral and enteral nutrition in the acute setting as well as measuring dietetic clinical outcomes.  Juliet Wilson, RD  A close-up of a person smiling  Description automatically generated |
| A person smiling for the camera  Description automatically generated with low confidence  C:\Users\sbzlmh\Desktop\Amanda.jpg |

## Course Organisation

This is a modular course. To qualify for the range of qualifications this programme offers, students are required to accumulate the following credits from the modules studied:

MSc in Clinical Nutrition:

Passes in 180 credits.

PGDip in Clinical Nutrition:

Passes in 120 credits.

## Teaching & Learning Strategy

Each 20-credit module(s) will run over a period of approximately 4 months and will normally be delivered over 4 -8 contact days as timetabled. Taught sessions will include lectures, group work and interactive sessions. Learners will be encouraged to focus on specific issues and problems outlined in the coursework documents, reassess knowledge through guided reading of the published research and plan further refinements to their clinical approach to integrate this knowledge into practice. This approach incorporates reflection and action and encourages students to problem-solve and achieve change. Students are expected to carry out their own reading, research and reflection outside of the taught material time, with an emphasis on self-directed learning (160/200 self-directed learning hours per each 20credit module).

Research Skills in Nutrition (BIOS4065) is a core module. Students are then able to access any modules within the structure set out on page 15 and need to undertake the 60-credit research project for the full Masters.

Please note that the marking of all assessments are moderated both internally and by the external examiner. The external examiner has always highly commended the robustness of the marking and quality of feedback. To continue to improve the standard of your work please do read the feedback comments carefully, both annotations on the script and marksheet, and not just look at the mark awarded. We aim to both provide positive comments but also to provide guidance about what you could have done better in order to have achieved a higher mark.

**Please note that there will be an additional day (10-3.30pm) offered ‘Introduction to Clinical Nutrition’. This will be offered on October 5th 2022 and we would encourage any students who are not UK practising dietitians to participate in this taught day.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Module | Module code | Core | Credits | Taught |
| Fundamentals of Nutrition | BIOS4069 | N | 20 | Autumn |
| Obesity Management | BIOS4048 | N | 20 | Autumn |
| Gastroenterology | BIOS4072 | N | 20 | Autumn |
| Research Skills in  Nutrition | BIOS4065 | Y | 20 | Autumn |
| Nutrition & Diabetes | BIOS4062 | N | 20 | Spring |
| Public Health Nutrition | BIOS4070 | N | 20 | Spring |
| Paediatric Nutrition | BIOS4057 | N | 20 | Spring |
| Nutrition Support | BIOS4047 | N | 20 | Spring |
| Research project | BIOS4096 | Y | 60 | Summer |

|  |  |
| --- | --- |
| **Module Name (convenor)** | **Module Dates** |
| **Fundamentals of Nutrition (JB)** | Every Monday throughout the autumn semester |
| **Obesity Management (AA)** | Friday 7th, 14th & 21st October and 2nd, 9th and 16th December 2022 |
| **Gastroenterology (AA/JM)** | Every Wednesday in Autumn semester 2022 (week 2-10) |
| 1 day Study Day IBS & Use of FODMAP diet | October (No assessed components). |
| **Research Skills in Nutrition (LC)** | Every Thursday throughout the autumn semester |
| **Nutrition & Diabetes** | January 2023: Thursday 19th, Friday 20th and Thursday 26th  February 2023: Thursday 2nd, Thursday 9th |
| **Public Health Nutrition (JO)** | One day each week throughout the spring semester |
| **Paediatric Nutrition (AA/LB)** | Thursday 3rd, & Friday 4th March; Wednesday 20th, Thursday 21st & Friday 22nd April 2023 |
| **Nutrition Support (JM)** | Every Wednesday in Spring semester 2023 (week 21-28) |

**Attendance;**

Please note that we expect good attendance at timetabled sessions. Attendance monitoring software is used so that we are accurately able to report back to sponsors about the level of individual attendance. Whilst we make every effort to record lectures and to make the recorded lectures available, sometimes technology does not work. Further, at Masters level study we would expect to see engagement in and contribution to group discussions. Any sessions delivered via Teams will be ‘live’ and will involve groupwork and discussions. The lecturers will endeavour to provide both face-to-face delivery and also live delivery via Teams at the same time. However again, sometimes the technology available does not allow this.

We also ask that all students make every effort to be punctual. Try and aim to be ‘in class’ at least 5 minutes before the class is due to start. Often important information is conveyed at the start of the class. It can also feel quite disruptive if you are delivering a session and people come in 5 minutes or more after you have started.

However please do let us know if you have genuine reasons for being delayed or absent.

# Guidance for coursework

# All types of written assessment will include a mark awarded for written structure, expression and referencing (generally 10%). We are looking for a clear and logical order, focused piece of work with scientific writing style. Show evidence of critical appraisal of the supporting evidence base. Reading journal papers will help to further develop your personal writing skills. There should be appropriate citations and a diverse and wide range of references used.

Use 1.5 line spacing, Verdana 11 point or Times New Roman size 12 font. Word count to be clearly stated on the title page. There is a +/-10% allowance. For higher word counts there will be a grade reduction e.g., from 65 to 62, in the assessment of the written expression. Include page numbers and subheadings. To ensure anonymous marking student ID number should only be included.

## Short report

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Word count** | **Description** | **% Marks** |
| Introduction to topic | ~200 | Brief context of the condition, incidence and how nutritional management can benefit. Concise description of current management and what you plan to review in this essay. | 10% |
| Selection of papers/supporting evidence | ~100-200 | Clear and concise description of:   * Search strategy * Databases used (at least 2) * Inclusion and exclusion criteria employed and measured outcomes e.g. PICO with rationale * Quality assessment | 15% |
| Presentation of findings/results and data interpretation, discussion | ~800 | Include a brief summary of the characteristics of each study supported by a summary table.  Clear discussion of the main findings either by outcome or treatment. Include relevant data. Consider summarising key outcomes in a summary table.  Clear interpretation of results. Draw on wider current literature and show evidence of critical appraisal. Include strengths and limitations. | 50% |
| Summary/conclusions/recommendations | ~200-300 | Include a clear conclusion with recommendations for future research and implications for clinical practice. | 15% |

## Case study

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Word count** | **Description** | **% Marks** |
| Background | ~500 words | Provide a concise introduction to the case, with appropriate reference to the literature including local guidelines/policies  Clearly indicate your role, relevant details of the service and/or multidisciplinary team and care pathway.  Reason for referral  Provide a rationale for using this individual as a case study  Include aim/s and objectives for the report  Reference to confidentiality and consent being obtained | 10% |
| History | ~800 words | Include relevant (with timescales if appropriate)   * Anthropometrics * Biochemistry * Clinical/medical diagnosis * Past medical history * Medications * Diet and nutrition * Previous dietetic intervention/s * Social and cultural aspects   Some of this data may be presented within a graph/table/diagram | 10% |
| Dietary/nutritional intervention | ~1200 words | Outline your proposed intervention with justification, with clear reference to the evidence-base/guidelines and/or policies.  Inclusion of a full dietary assessment and nutritional analysis (if appropriate) with reference to relevant guidelines  Inclusion of your aim and objectives dietary/nutritional diagnosis and intervention/s with justification  Indication of how person centred care was considered/undertaken  Provide a treatment/action plan for the case with rationale and reference to any resources used.  Indication of the timescales/care pathway and role within the multidisciplinary team and/or other services  Indicate a plan and rationale for review/s or discharge/liaison with others | 30% |
| Analysis and reflection | ~1500 words | Provide a detailed reflection and analysis with reference to your aim/s and intervention/s  Reference to the current literature, local policies/guidelines/resources and other services.  Indicate how your intervention/treatment influenced the individuals care and their outcome/s.  Identify and discuss any challenges that you encountered, how these may have been overcome and how these may have influenced your practice. | 30% |
| Future practice | ~500 words | Provide a summary of how this case study has influenced your dietetic practice.  Identify the benefits, barriers and impact on your service users and service.  Suggest recommendations for your service, service users and your practice with reference to the literature. | 10% |
| Appendices |  | These may include **if appropriate to the case**;   * Timeline of initial assessment and reviews * Care pathway/s * Growth charts * Dietary recalls/food diaries * Nutritional analysis * Service details/information * Resources used with the case study such as dietary information * Consent from the service user/carers |  |

## Scoping review

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Word count** | **Description** | **% Marks** |
| Abstract | ~250 words | Clear and concise summary of the review including a background, methodology, results and conclusion sections- see published examples | 10% |
| Introduction to review subject | ~900 words | Provide a clear rationale for undertaking the scoping review and how you identified your research question  Brief context of the condition/subject, incidence and how nutritional management can benefit and/or influence the condition.  Finish this section with clear aim/s, objectives for the review. | 20% |
| Methods | ~350 words | Clear and concise description of how the studies/evidence was identified and process undertaken (considering the Arksey and O’Malley[2005] framework).   * Summary search strategies used * Databases used * Search terms * Inclusion and exclusion criteria employed e.g. PICO with rationale * Study selection * Data extraction * Charting the data, including thematic analysis if undertaken | 10% |
| Collating, summarising the results | ~1500 words | A summary of the data base search and final paper numbers supported by flow diagram. Flow diagram should have a title and reasons for exclusion and corresponding numbers with rationale.  Include a summary table of each studies characteristics  Include relevant data including any statistical data. Consider summarising key outcomes in a summary table. | 20% |
| Data interpretation, discussion and conclusion | ~1500 words | Provide a brief overall summary of the key findings.  Clear interpretation of results. Draw on wider current literature and show evidence of critical appraisal. Include strengths and limitations.  Identify the implications of the study for policy, practice or research.  Consultation with key stakeholders (if appropriate) | 20% |
| Appendices |  | Include with appropriate titles and numbers which can be found with citations in text.  Full search strategy – optional  Data extraction tool |  |

## Systematic literature review

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Word count** | **Description** | **% Marks** |
| Abstract | ~250 words | Clear and concise summary of the review including a background, methodology, results and conclusion sections- see published examples | 10% |
| Introduction to review subject | ~900 words | Brief context of the condition/subject, incidence and how nutritional management can benefit and/or influence the condition.  Concise description of the current evidence base (any type and ensure acknowledge recent reviews if available)  Finish this section with clear aim/s, objectives and outcome measures, with a rationale for the need for this review. NB if other similar reviews make explicit how your review is different. | 20% |
| Methods | ~350 words | Clear and concise description of the:   * Summary search strategies used * Databases used (at least 2) * Search terms including MeSH terms * Inclusion and exclusion criteria employed and measured outcomes e.g. PICO with rationale * Data extraction and synthesis * Quality assessment | 10% |
| Presentation of results/findings | ~1500 words | A summary of the data base search and final paper numbers supported by flow diagram. Include results of quality assessment (supporting evidence including in appendices). Flow diagram should have a title and reasons for exclusion and corresponding numbers with rationale.  Include a summary of each studies characteristics supported by a summary table.  Clear discussion of the main findings either by outcome or treatment. Include relevant data. Consider summarising key outcomes in a summary table. | 20% |
| Data interpretation, discussion and conclusion | ~1500 words | Provide a brief overall summary of the key findings.  Clear interpretation of results. Draw on wider current literature and show evidence of critical appraisal. Include strengths and limitations.  Include a clear conclusion with recommendations for future research and implications for clinical practice. | 20% |
| Appendices |  | Include with appropriate titles and numbers which can be found with citations in text.  Full search strategy-optional  Data extraction tool  Details of assessment quality used-optional |  |

## Service development

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Word count** | **Description** | **% Marks** |
| Background | ~500 words | Provide a concise introduction to the proposed service/practice development, with appropriate reference to the literature including local guidelines/policies.  Clearly indicate your role, relevant details of the service and/or multidisciplinary team and care pathway.  Provide a clear rationale for undertaking the development.  Overall aim: state what the proposed development will do.  Objectives: what the development will try to achieve in order to meet the overall aim. These should be SMART.  Acknowledgment to confidentiality and consent being obtained and involvement of other team members (if relevant) | 10% |
| Evidence/Justification for development | ~800 words | Provide evidence to support the requirement for the development. Include justification, with clear reference to the evidence-base/guidelines and/or policies.  Include an overview of the current service/team and service users.  Include some data to support your development. Some of this data may be presented within a graph/table/diagram | 10% |
| Proposed development- design, methods and proposed outputs | ~1200 words | Outline your proposed development.  Include:   * The overall approach to be taken * The measures and tools to be used * The roles and responsibilities of the team/ key players * The key stakeholders * Possible risks and suggestions for managing or overcoming them * Consideration for clinical/cost effectiveness and service user outcomes * Resource plan/Gantt chart to show what timescale and resources will be required at which specific points   Outputs   * The potential impacts on service quality and efficiency e.g. patient outcomes * The potential impacts on and benefits to key stakeholders * Indication of how the development may affect the care pathway and service user care. * Any potential impact to dietetic practice * How does the development fit with national and local policy and context | 30% |
| Service/practice development evaluation | ~1500 words | Clearly specified outcome measures, supported by the relevant literature  Key development milestones  Consideration for appropriate evaluation method and analysis  Success criteria:   * How you will decide if the objectives of the service development have been achieved * How will you decide if the needs of the key stakeholders have been met * Discussion of the strengths and limitations of the proposed development | 30% |
| Reflection | ~500 words | Provide a summary of how this development has influenced your practice.  Suggest recommendations for your service, service users and your practice with reference to the literature.  The possible implications for future work and next steps | 10% |
| Appendices |  | This may include   * Data collection tools * Care pathway and service information * Resources used * Consent evidence (if appropriate) |  |

**Frequently Asked Questions - FAQ’s**

*Systematic/Scoping Literature Review*

**How many papers should I include in my review?**

This will depend on your topic of research and on how many papers meet your research criteria. As a rule of thumb, a review with less than 6 papers is unlikely to have enough depth to build a good piece of work. As pointed out in the book: ‘*Doing a literature review in health and social care: a practical guide*’ by Helen Aveyard (a very good reference that we recommend), if you find less than 6 papers on your topic of interest, it means that the topic is perhaps not suited for a literature review or your inclusion criteria may need to be extended. Usually, it takes **9-15** papers to make a good review of the literature (Aveyard, 2014) - at the level expected for the assignments. However if you have too many it can mean that the volume of work is unmanageable so do think carefully about your research question.

**Is there any period limit of the articles included?**

Usually, the most up to date publications/evidence the better. However, it is ok to have “old” evidence (published before 10-15 years ago) in case there are not enough (more) recent articles exploring your research topic. The period chosen is flexible if your review includes a transparent explanation about the criteria employed for inclusion and exclusion of papers.

*Case study*

**FAQ’s**

**Can the module convenors provide a case study?**

In most of the modules, convenors **do not** provide a case study although for the gastroenterology module there are case-studies provided. Learners interested in doing case studies should bring their own cases (from previous practice, acquaintances, etc.). Ideally it should be a real case, with as much detail as possible (including socio-demographic information).

# BIOS4069 FUNDAMENTALS OF NUTRITION

## Module Convenor:

Prof John Brameld [John.brameld@nottingham.ac.uk](mailto:John.brameld@nottingham.ac.uk) 0115 9516133

## Summary of content:

This module aims to provide a comprehensive introduction to the key concepts in the field of nutrition, including requirements for macronutrients (e.g. proteins, carbohydrates and fats) and micronutrients (e.g. vitamins and minerals).

## Method and Frequency of Class:

The module will comprise lectures (approx 35 hours), computer-based teaching sessions (5 hours), individual tutorials (4 hours) and at least 100 hours of student centred learning.

## Education aims:

* To provide a comprehensive introduction to nutritional science, including ethical issues.
* To emphasise the scientific, evidence based approach to nutrition.
* To illustrate the quantitative nature of nutritional science.
* To develop scientific writing skills, including literature searching, essay structuring, referencing and avoiding plagiarism.

## Method of Assessment:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| Recent developments in Nutrition | 30 | 1500 word essay |
| Online MCQ/calculations energy/vitamins/minerals | 2 x 10 | Online tests |
| Exam | 50 | 2hr exam |

## Module Timetable

|  |  |
| --- | --- |
| **WEEk/Date** | **Topic** |
| 2 | **09.00** Introduction to Module – Set essay titles  **09.30** Macronutrients – Carbohydrates  **12.00** Critical thinking & writing skills tutorial 1  **14.00** Macronutrients – Lipids and EFAs |
| 3 | **09.00** Macronutrients – Protein & AAs  **12.00** Essay tutorial 1 (structure/ contents)  **14.00** Protein quality &AA scoring workshop |
| 4 | **09.00** Micronutrients **-** Minerals  **12.00** Essay tutorial 2 (Draft for comment)  **14.00** Self study: complete essay |
| 5 | **10.30** Submission deadline for Essay  **11.00** Micronutrients -Intro toVitamins  **14.00** Vitamin Village – e-learning tool |
| 6 | **09.00** Self study use Vitamin Village  **14.00** Dietary Reference Values (DRVs) |
| 7 | **09.00** Online assessment 1 – Minerals & Vitamins  **10.30** Food labelling & health claims  **11.45** Functional foods & nutraceuticals  **14.00** Non-nutrient components: Pre/pro-biotics  **15.00** Non-nutrient components: Fibre |
| 8 | **09.00** Energy balance 1: Appetite regulation  **14.00** Self study afternoon |
| 9 | **09.00** Energy balance 2: BMR & expenditure  **11.00** Energy balance 2: BMR & expenditure  **14.00** Self study afternoon |
| 10 | **09.00** Human Energy requirements  **14.00** Energetics & calculations workshop |
| 11 | **09.00** Online assessment 2 – Energetics  **10.30** Malnutrition  **14.00** Self study afternoon |
| 12 | **09.00** Free radicals & Disease  **11.00** Exam information and Module Evaluation |

# BIOS4048 OBESITY MANAGEMENT

## Module Convenor:

Dr Amanda Avery [amanda.avery@nottingham.ac.uk](mailto:amanda.avery@nottingham.ac.uk)

## Education Aims:

To enable participants to enhance their knowledge and skills in the area of obesity management and to explore the underpinning evidence base.

## Learning Outcomes:

By the end of the module you should be able to demonstrate the following learning:

* Summarise the current policy drivers, clinical and public health guidelines and care pathways developed to enhance obesity prevention and management across the different life stages.
* Describe the metabolic and psychological causes/consequences of being obese.
* Appraise the use of different dietary, physical activity and behaviour change strategies used in weight management.
* Appraise the evidence for group intervention versus one-to-one interventions in weight management.
* Describe how pharmacotherapy and/or bariatric surgery may have a role in obesity management and the additional support required.
* Evaluate cost effective care pathways/strategies/services and action plans suitable for obese people in a range of clinical and community settings and across the different life stages.

## Method of assessment:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| Coursework 1: presentation critical review of a journal paper | 30 | presentation |
| Coursework 2: review, case-study or service development | 70 | 4000 word report |

## Assessment Criteria:

**Presentation:**

This piece of coursework will contribute 30% of the overall module marks.

The presentation will present a critical examination of a published paper looking at a certain aspect of weight management. Students will be able to sign up to one paper from a selected list.

**Case study or literature review or planning of a local weight management service:** 70% of the total module mark.

Students will write a 4,000 word case study or literature review. Case studies/literature reviews may be suggested by the student after discussion with the tutor.

Module timetable

|  |  |  |
| --- | --- | --- |
| **Session and Date** | **Session theme** | **Lecturer** |
| October 7th am | Module introduction  **Coursework**  Setting the scene –Causes and Consequences of obesity; metabolic and psychological.  Current national and international policies influencing the management (WHO, NICE, SIGN), the cost of obesity. | AA |
| October 7th pm | Debate – the effectiveness of a range of dietary strategies used in weight management |  |
| October 14th am  and pm | The role of physical activity in weight management  Obesity prevention and management across the different life stages; | Guest speaker  AA |
| October 21st | Critical appraisal of the literature/coursework preparation | AA |
| Dec 2nd  am | Disordered eating and obesity  Insight from a service user (s) | AA  +service users |
| Dec 2nd pm | Group intervention versus one to one intervention (again a debate including participant’s involvement). | AA |
| Dec 9th  am | The role of pharmacotherapy in weight management.  Bariatric surgery | Nerissa Walker |
| Dec 9th | Planning a local weight management service  Building in weight maintenance support | AA |
| December 16th  January 20th | Presentations  Case study/literature review hand-in |  |

# BIOS4072 GASTROENTEROLOGY (AND NUTRITIONAL MANAGEMENT)

## Module Convenor**:**

DrAmanda Avery [amanda.avery@nottingham.ac.uk](mailto:amanda.avery@nottingham.ac.uk)

## Education Aims:

To enable participants to further their knowledge and understanding of the current trends and evidence base underpinning the nutritional management of people with gastrointestinal diseases.

## Learning outcomes

* Describe the normal functions of the gastrointestinal (GI) tract and where/ how nutrients are absorbed/synthesised.
* Defend the use of different nutritional approaches appropriate to the needs of different sub-groups of people with gastrointestinal diseases – to include coeliac disease and other malabsorptive states, irritable bowel syndrome, inflammatory bowel disease, bowel resection, GI cancers, liver disease and pancreatitis.
* Interpret the evidence for the effectiveness of nutrition and dietetic interventions in a range of clinical and community settings, when working with adults with gastrointestinal disease.
* Design care pathways and treatment plans suitable for service users, (adults with gastrointestinal disease), with a wide range of disease conditions.
* Describe current policy drivers supporting a high level of nutritional management in the care of people with gastroenterological conditions.
* Critically assess the importance of working as part of a MDT.

## Method of assessment:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| Coursework 1: Short report on the nutritional management of liver or pancreatic disease | 30 | 1500 words |
| Coursework 2: Case study/service development | 70 | 4000 words |
| Coursework 3: Presentation of proposed coursework 2 | Formative | 10 minutes |

## Module Timetable

|  |  |  |
| --- | --- | --- |
| **Date** | Session theme | **Lecturer** |
| **Week 2**  12/10/22  10-3:30 | **Lecture:** Module introduction  **Coursework 1 &2 overview** | AA |
|  | **Lecture and workshop**:  Overview of the GI tract, absorption and digestion | JM |
| **Week 3**  19/10/22  10-2:30 | **Workshop:**  Critical appraisal | AA/JM |
| **Week 4**  26/10/22  10am-3:30pm | **Lecture and workshop:**  IBS and FODMAP | AA |
| **Week 5**  02/11/22  10am-3:30pm | Lecture and workshop:Coeliac Disease and non-coeliac gluten sensitivity (NCGS). | Guest speaker |
| **Week 6**  09/11/22  10am-3:30pm | Lecture and workshop:GI surgery including Bariatric surgery/Liver disease **Submit coursework** **1** |  |
| **Week 7**  16/11/22  10am-3:30pm | **Lecture and workshop:**  IBD–nutritional management and new horizons | JM |
| **Week 8**  23/11/22  10am-12:30  1.30-3.30 | **Practical:**  Specialist feeds for gastro patients  The role of probiotics in gut health | JM  Guest speaker |
| **Week 9**  30/11/22  10am-12.30 | **Work shop:**  Case studies | JM |
| **Week 10**  01/11/22 | **Presentations**  **On CW2 – formative feedback** | JM,AA,LB,AM |
| , |  |  |

# BIOS4065 RESEARCH SKILLS IN NUTRITION

## Module Convenor:

Dr Lisa Coneyworth lisa.coneyworth@nottingham.ac.uk 01159 516127

Module description:

This module is run on a Thursday during the autumn semester. You will study this module alongside students on the MSc Nutritional Sciences programme.

## Educational Aims:

The aim of the module is to prepare you for your research project. The module is compulsory and taken by all students.

## Method of assessment:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| CW1: Statistics | 25 | Report |
| CW2: Practical Skills in Nutrition Presentation | 75 | Presentation |
| CW3: Epidemiology | 25 | Report |

## Module Timetable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week | Duration | | Subject | Format |
| From | To |
| 2 | AM |  | The Importance of Evidence Based Nutrition. | Workshop |
| 2 | PM |  | What Is Research And Why Am I Doing It? (Philosophy Of Science And Ethics, The Research Process) | Lecture/workshop |
| 3 | AM |  | How to Master Reading a Journal.  (Critical Review Skills & Evidence Synthesis) | Lecture/ Workshop |
| 3 | PM |  | What Is Data And How To Collect It. | Workshop |
| 4 | AM |  | How To Present Data Effectively.  (Set CW1) | Lecture/  Computer Workshop |
| 4 | PM |  | How To Analyse Data.  Data Analysis Workshop 1. | Lecture/  Computer Workshop |
| 5 | AM |  | Data Analysis Workshop 2. | Computer Workshop |
| 5 | 11.30 | 12.15 | Introduction to CW2. |  |
| 5 | PM |  | Introduction To Nutritional Assessment- Portion Size Practical. | Practical (Clinical Skills) |
| 6 | AM |  | Nutritional Assessment – Diet. | Lecture |
| 6 | PM |  | Dietary Assessment – Nutritics. | Computer Workshop |
| 7 | AM |  | Introduction to Biomarkers & Basic Laboratory Skills | Laboratory Practical |
| 7 | PM |  | Biomarkers | Laboratory |
| 8 | AM |  | Nutritional assessment – anthropometry | Lecture |
| 8 | PM |  | Anthropometry | Practical (Clinical Skills) |
| 9 | AM |  | Optional Tutorials (CW2) | Computer Workshop |
| 9 | PM |  | Self-study | Choose an item. |
| 10 | AM |  | Assessed presentations – Part 1 | Choose an item. |
| 10 | PM |  | Assessed Presentations – Part 2 |  |
| 11 | AM |  | Nutritional Epidemiology 1 | Lecture |
| 12 | AM |  | Nutritional epidemiology 2 | Lecture |
| 12 | PM |  | Optional epidemiology tutorials  Module summary & evaluation | Workshop |

# BIOS4062 NUTRITION AND DIABETES

## Module Convenor:

Andreia Moura [andreia.moura@nottingham.ac.uk](mailto:andreia.moura@nottingham.ac.uk)

## Aims:

To enable participants to further their knowledge and understanding of the current trends and evidence base underpinning the nutritional management of people with diabetes in order for them to achieve the competencies required to support more specialist nutritional and dietetic skills dependent on their base-line knowledge.

## Learning outcomes

* Appraise current UK policy drivers supporting a high level of nutritional management in the care of people with diabetes.
* Summarise the nutritional problems and wider needs of people with diabetes and develop appropriate dietary interventions to meet their needs.
* Defend the use of different dietary and pharmacological approaches appropriate to the different needs of people with diabetes.
* Interpret the current evidence for the effectiveness of nutrition and dietetic interventions in a range of clinical and community settings, when working with people with diabetes.
* Evaluate care pathways and treatment plans suitable for people with diabetes as service users with a wide range of disease presentation.
* Appraise the importance of working as part of a Multidisciplinary Team (MDT).

## Method of assessment:

Nutrition and Diabetes 1:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| CW1 Case study | 70 | 4000 words |
| CW2: Presentation | 30 | Oral individual presentation |

# BIOS4057 PAEDIATRIC NUTRITION

## Module Convenor

Dr Amanda Avery [amanda.avery@nottingham.ac.uk](mailto:amanda.avery@nottingham.ac.uk) 01159 9516238

## Aims:

To provide a comprehensive understanding of the role of diet of infants and young children and their requirements in health and disease. The treatment of disease with nutritional and dietetic therapy including obesity, diabetes, coeliac disease, allergy, cystic fibrosis, faltering growth, cancer and nutritional support.

## Learning Outcomes:

* Appraise the current nutritional requirements and dietary reference values for both the well and unwell infant and child.
* Defend the role of diet in the nutritional management of disease in infants and children including obesity, diabetes, coeliac disease, allergy, faltering growth, cystic fibrosis and cancers.
* Interpret the evidence for the effectiveness of nutrition and dietetic interventions in a range of clinical and community settings, when working with children.
* Design care pathways and treatment plans suitable for service users (children and their carers) with a wide range of disease conditions.
* Evaluate the use of appropriate monitoring tools in nutritional paediatric care.
* Critically appraise the importance of working as part of a MDT.

## Method of assessment:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| CW1 Presentation on cw2 | 30 | Presentation |
| CW2: Written report on case study or literature review | 70 | 4000 words |

## Module timetable:

|  |  |
| --- | --- |
| **Day 1**  9.30am-12.30pm | **Lecture:** Module introduction  **Coursework overview**  Current standards and HE guidelines re; dietary requirements. General weaning.  Faltering Growth  Common disorders |
| 1.30-4.30pm | **Lecture and workshop**:  Allergies in children  Coeliac disease –case studies |
| **Day 2**  9.30-11am | **Lecture and workshop:**  Feeding Children with Disabilities |
| 11.15am-1pm | **Workshop:**  Adjusting feeds |
| 2-4.30pm | **Lecture and workshop:**  Childhood obesity/ eating disorders |
| **Day 3**  9am-11am | **Lecture and workshop:**  **Paediatric Diabetes** |
| 11:15-1pm | **Lecture and workshop:**  In born errors of metabolism |
| 1.30-4.30pm | **Lecture and workshop:**  Cystic Fibrosis |
| **Day 4**  9.15am -12pm | Lecture and workshop:Ketogenic diet for the management of epilepsy |
| 12.30-5pm | **Presentations** (cw1)  On cw2 |

**Please note that an additional date may be added based on previous evaluation of this module.**

# BIOS4047 NUTRITION SUPPORT

## Module Convenor:

Jane Musson: jane.musson@nottingham.ac.uk

## Module Aim :

This module examines nutrition support strategies and provides dietitians and other health care professionals with the skills and knowledge to design, assess and monitor enteral and parenteral feeding regimens both on the general wards and in specialist areas such as critical care, renal disease and in straightforward children’s conditions. The module focuses on critical appraisal and evidence based dietetic practice.

## Learning Outcomes:

By the end of this module students will:

* Demonstrate an in depth knowledge and understanding of the theoretical principles of parenteral and enteral nutrition in the prevention and treatment of disease related malnutrition.
* Display a working knowledge and competent decision making at an advanced level of specific practices relating to enteral and parenteral nutrition.
* Demonstrate the skills required to undertake an audit relating to nutrition support
* Apply theoretical knowledge and practical skills to develop patient care plans which include a review of current practice with a focus on measurable evidence based outcomes.

## Method of assessment:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| Short report: Reflective piece | 10 | 800 words |
| Essay/audit plus poster | 90 | 2500 words |

## Assessment criteria:

* **Coursework 1** Short report should focus on a particular subject that is of interest or relevant to the student’s practice and showcase your critical appraisal skills (**800** words) (10%)
* **Coursework 2** Essay on the “Clinical effectiveness of enteral or parenteral nutrition” in a specific population or an audit and poster relevant to their own clinical practice (**2500** words) (90%)

## Module timetable

|  |  |  |
| --- | --- | --- |
| **Date** | Session theme | **Lecturer** |
| Day 1 | **Lecture:** Module introduction  **Coursework 1 &2 overview** | JM |
|  | **Workshop**:  Measuring dietetic outcomes in clinical practice and audit cycle  **SDL-** Oral nutrition support | JM |
| 15/2/2023  10-12:30 | **Lecture and workshop:**  Nutrition support in kidney disease | BM |
| 22/2/2023  10am-3:30pm | **SDL-** Gastroenterology and Oncology | SDL |
| 1/3/2023  10am-3:30pm | **Lecture and workshop:**  Nutrition support in paediatrics | JM |
| 8/3/2023  10am-3:30pm | Lecture and workshop:PN in adults |  |
| 15/3/2023  10am-3:30pm | **Lecture:**  Nutrition support in HEF  **Lecture:**  Nutrition support in Critical care  **Workshop:**  Advanced Dietetics in Critical care (part time RDs compulsory, optional for other students) |  |
| 22/3/2023  10am-12:30 | **SDL/lecture** |  |
| 30/03/2022  10am-12:30 | **Work shop:**  Case studies  Conclusion and Evaluation | JM |

# BIOS4070 PUBLIC HEALTH NUTRITION

## Module Convenor:

Jemma Orr, jemma.orr@nottingham.ac.uk

## Module Description and Aims:

Building on basic knowledge of epidemiology, this module will explore relationships between diet, health and disease in human populations. An appreciation of these techniques will be used as the basis for in-depth exploration of current major public health priorities. The module will take a life-course approach to explain and develop the concepts of human health and disease as affected by diet, dietary components and interacting factors.

## Learning Outcomes. To:

## 1. Critically interpret epidemiological data in relation to health & disease (building on Research Skills in Nutrition).

## 2. Understand human nutrition in the context of the lifespan and changing nutrient requirements.

## 3. Describe the contribution of nutrition to early human growth, development and physiological function.

## 4. Develop a public health nutrition intervention for a target population with a clearly rationalised aim and objectives with consideration as to how the intervention will be evaluated.

## 5. Describe how food security and the need for a healthy sustainable diet fits into public health nutrition policy.

## Method of assessment:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| CW1 Project | 70 | 4000 words |
| CW2: Presentation of project | 30 | Presentation |

## Assessment criteria

**Project** (4000 words) (70%)

You are being asked to develop a community nutrition intervention based on the needs of a local community.

**Presentation**: This piece of coursework will contribute 30% of the overall module marks. Students will be asked to present an outline of their project.

## Module timetable

|  |  |  |
| --- | --- | --- |
| Week | Subject | Format |
|
| 19 | Module introduction | Lecture |
| A brief history of public health nutrition | Seminar |
| Intro to risk | Seminar |
| Coursework introduction | Discussion |
| 20 | Transferrable skills | Tutorial/ group work |
| Nutrition Policy: An international perspective | Seminar |
| UK National/local nutrition policy | Lecture |
| 21 | Community Nutrition Interventions inc coursework discussion | Lecture |
| Food security / Social Marketing | Lecture |
| 22 | PHN and conception | Lecture |
| PHN and pregnancy | Lecture |
| 23 | PHN and infancy – 0-1 year | Lecture |
| 24 | PHN and childhood - 1-10 years (includes School Food) | Lecture |
| Adolescence – 11-18 years | Lecture |
| 25 | PHN and adulthood – 18-65 years (alcohol/Respiratory – smoking/ open-fire cooking) | Lecture/seminar |
| PHN and adulthood – 18-65 years (Health checks/physical activity) | Lecture/seminar |
| 26 | Nutrition in developing countries | Lecture |
| PBL exercise on nutrition in developing countries | Group work |
| 27 | PHN and adulthood (CVD) |  |
| PHN and adulthood/(cancer) |  |
| 28 | PHN and Elderly (Frailty/falls) | Lecture / Seminar |
| PHN and elderly (Dementias) | Lecture/ seminar |
| 29 | Presentations |  |

# BIOS4096 RESEARCH PROJECT

## Module convenor:

Dr Lucia Vasquez Rocha [lucia.vasquezrocha1@nottingham.ac.uk](mailto:lucia.vasquezrocha1@nottingham.ac.uk)

## Aims and Objectives:

The aim of the research project is to provide you with an opportunity to undertake a programme of original research in your chosen field of study. The results will be presented in your report/research paper and poster. By the end of the project, you will have gained experience of independent research activity and should be competent in:

* Problem identification and analysis
* Principles of good experimental design
* Literature searching, analysis and interpretation
* Principles and practice of statistical analysis
* Data preparation and presentation
* Poster presentation skills
* Writing a detailed scientific report
* Research skills appropriate to your area of specialisation

## Duration and workload

The Research Project is a 60-credit module. The majority of the work takes place during the summer period of your Masters programme after you have completed the taught modules. Specific information is available on the module Moodle page.

It is normal for the workload to be uneven during the project. Some projects may involve a period of intensive activity, rather than an even distribution. The total project workload should be around 600 hours. To keep track of your project work, you should keep a lab book in which you log your activities. This record should be made available to your supervisor at the end of the project and may be used by them and the assessors to help in their evaluation of your professional skills to carry out a project.

You will be allocated an academic supervisor but please note that it is very important that you are able to meet regularly with them particularly during the months of June, July & the first 2 weeks in August. We would discourage you from taking any lengthy periods of vacation during this period. We know from experience that regular contact with your project supervisor is beneficial.

## Scope

Research Projects involve original laboratory, company-based, literature-based or survey research under the supervision of an individual member of academic staff or a supervisor in industry. You will design the study; gain familiarity with previously published literature together with the methods/techniques, ethical issues and (where appropriate) safety procedures relevant to the topic; undertake data collection and complete appropriate quantitative and/or qualitative analysis in preparation for the report. Each project will involve collection of data by means such as experiment, questionnaire, observation, factory trials and/or literature search. All projects, including literature reviews, must involve analysis of a scientific question and lead to reinterpretation of existing material.

## Method of assessment

The research project accounts for 60 credits which equates to a third of the total mark for the entire Masters programme. The percentage breakdown is as follows:

|  |  |  |
| --- | --- | --- |
| **Assessment Type** | **Weight (%)** | **Requirements** |
| Laboratory, field or library research (may include literature review or experimental plan) | 25 | Report |
| Report/Research Paper | 60 | 5,000 words or 6000 for a review |
| Poster presentation | 15 | Poster |

## Assessment criteria

**The research project is assessed by learning outcomes as indicated below:**

* The ability to summarise aims, objectives and key relevant information succinctly in an abstract of no more than 350 words. (This learning outcome is assessed through the abstract in the written report/research paper.)
* A knowledge and understanding of the context of the research and its outcomes in relation to previous work in the discipline. (This learning outcome is assessed through the introduction in the written report/research paper.)
* The ability to acquire substantial quantities of information systematically and process it effectively (including making and recording accurate measurements / observations, locating and retrieving data, as appropriate). (This learning outcome is assessed through the methods and results in the written report/research paper.)
* The ability to analyse and interpret information and data critically, drawing appropriate conclusions through independent thought whilst giving due weight to the published arguments of others. (This learning outcome is assessed through the discussion in the written report/research paper.)
* The ability to write and construct a scientific research report using appropriate styles, conventions and terminology. (This learning outcome is assessed through the overall presentation skills in the written report/research paper, i.e. following the instructions on writing styles, typographical and referencing accuracy etc.).
* The professional skills to carry out scientific research and apply appropriate scientific method. (This learning outcome is assessed by the project supervisor based on the student's performance throughout the project and the lab book, where applicable.)
* The ability to plan a project, incorporating safety, ethical, analytical and experimental design issues as appropriate. (This learning outcome is assessed by the project supervisor based on the student's performance in the planning stages of the project and the lab book, where applicable.)
* Execution of the project plan by working productively with others, managing working time effectively and meeting deadlines. (This learning outcome is assessed by the project supervisor based on the student's time management throughout the project and the lab book, where applicable.)
* The ability to work with an appropriate degree of independence and initiative, taking into account in the amount of assistance required for report writing. (This learning outcome is assessed by the project supervisor based on the student's performance throughout the project.)
* The ability to create and present a poster, summarising and reflecting on the project, consistent with the expectations of academia/industry, and respond to questioning. (This learning outcome is assessed through the poster presentation.)

Supervisors and assessors will mark the project independently based on an accompanying mark scheme (see Moodle). The supervisor’s and assessors’ marks for each element being assessed will then be averaged (to one decimal place) or, if they disagree by two unit grades or more (eg 58 and 68), a mark will be arrived at by discussion. The sum of these agreed marks will then comprise the overall mark for the project.

**Please note that for those students studying full-time, the actual research work will not generally commence until the beginning of June.**

# GENERAL STUDY SKILLS

## Terminology and style conventions

* Keep formatting simple:
* Avoid unnecessary hyphenation, justification, linked and embedded objects and images, and other advanced word processing features.
* Be consistent in representing symbols.
* Distinguish similar-looking symbols (e.g., letter x, multiplication sign, and Greek chi; minus sign, hyphen, and dash).
* Do not approximate characters by creating your own symbols (e.g., superscript o for degree symbol).
* Do not use underlining to indicate italics or in plus-minus signs.

## All written material must:

* Conform to the style conventions described below.
* Be concise and focussed. Try to avoid repetition. Shorter sentences are often better.
* Be written in UK English (UK spelling should be Oxford English, i.e. ize not ise (but use analyse). (See the Concise Oxford Dictionary or http://www.merriam-webster.com/).
* Be organized in the sequence described below.
* Use 1.5 line spacing.
* Be typed no smaller than 12-point Times Roman or Verdana 11-point.
* Have correct diacritics for non-English words.
* Be saved as a .doc or .rtf file.
* Define abbreviations at the point in the text where they are first used.
* Abbreviations and symbols should follow the International System of Units (SI).
* Nonstandard abbreviations must be defined at first occurrence, in both abstract and main text.

Check your work carefully for typographical errors and other mistakes. Do use the spellchecker on your word processing program (although you should accept the results judiciously as it checks only that words exist and not that they are correctly spelt in a particular context; educate your computer to use English spellings). We would also encourage you to ask a friend to read through your work for any obvious mistakes. Many books on writing are available in the library or through the bookshop. See also the Study Skills Booklet, available on each Moodle page – Report Writing Section.

## Personal tutors

When you begin your studies, you will be allocated a Personal Tutor who will provide support throughout your period of study. There may be occasions when you need to see your tutor/course manager to discuss academic or personal issues, perhaps in confidence, in which case you should make an appointment.

Meetings with personal tutors will also be regularly scheduled.

Many of you will wish to continue your studies and perhaps be undertaking a Masters degree before pursuing doctoral studies. Hence you may well be asking for academic references to support your application for higher level studies. It is important to remember that the academic reference will not only indicate the level of attainment achieved but also refer to attendance, attitude, motivation and participation. Indeed international government sponsors also tend to ask about these attributes.

## Office hours (Monday to Friday)

The School of Biosciences operates a system of "Office Hours" for meetings with students. The purpose of this system is to focus staff/student contact, not to reduce it. All academic staff will make available a minimum of two hours per week, during which time students can book appointments to discuss course/module/personal tutor matters. These times are not necessarily the same each week. A standard appointment will be 15 minutes, with students having the option to book double appointments, giving 30 minutes of contact time. Please remember that not all academics are full-time and they also support students on the undergraduate programmes.

## Information for students with a disability

The University of Nottingham is committed to promoting access for students who have a disability, dyslexia and/or a long-term medical condition. Services that are provided aim to enable students to fulfil the inherent requirements of the course as independently as possible.

If adjustments need to be made to certain aspects of the modules to ensure your participation on an equal basis with other students, please contact the module convener as soon as possible, or the course manager Amanda Avery, [amanda.avery@nottingham.ac.uk](mailto:amanda.avery@nottingham.ac.uk) . Any disclosure you make will be treated confidentially.

The following are examples of some adjustments that could be made - it is not an exhaustive list:

* Course materials – do you need lecturer's notes to be provided in different font size/type, colour of paper, Braille or on tape?
* Learning environment – do you need a flat access lecture theatre, access to computer for note-taking, someone to take notes for you, loop system?
* Presentation style – do you need the lecturers to use a microphone for the loop system, to face the front when speaking to allow lip-reading?
* Assessment – do you need additional time in examinations, rest breaks during examinations, papers in alternative formats?
* Other activities – do you need adjustment to allow your involvement in fieldwork, laboratory work?

To comply with both the Equality Act and the General Data Protection Regulation (GDPR), the module convener will ask your permission to pass on information relating to your disability in order to make reasonable adjustments. This might be to other lecturers, the School Disability Liaison Officer or Study Support Centre. It is possible for you to withhold this permission, and your right to confidentiality will be respected (). However, this may reduce the ways in which adjustments can be made to meet your needs. You should also note that if you do not disclose a condition which may compromise your safety, and/or those of others (students and staff) then you are not complying with guidelines on health and safety, which take precedence over provisions within the Equality Act. All records are kept in a secure place, and disposed of in accordance with data protection requirements.

## Penalties for Late Submission of Assignments

Coursework assignments should be handed in on time and submitted via Moodle unless otherwise specified. Earlier submission can be made. The penalty for late submission is five percentage points per working day overdue (i.e. a piece of work achieving a mark of 60% if submitted on time would be reduced to 55, 50,45% etc for successive days overdue). Normal working days include vacation periods, but not weekends and public holidays. Coursework required for presentation or assessment in class (test, seminar or class-work exercise) must be prepared for the appropriate lecture period.

In case of illness or personal difficulty allowance can be made, but the individual student must make a case for extenuating circumstances to be considered through the formal School of Biosciences route – electronic forms are available on the web-site.

## Acknowledging the Work of Others

Plagiarism is attempting to pass off the work of others as your own and is a serious academic offence. It includes copying material from textbooks verbatim, or copying from your colleagues (including students from previous years). Failure to reference information adequately may be construed as plagiarism. **Do not do it**. Verbatim material can be used provided it is placed in quotation marks, but should be kept to a minimum (see also the Study Skills Booklet – Report Writing Section). You should cite only references you have actually read.

## Plagiarism

All students registered in the School of Biosciences will have received the relevant MSc Courses Handbook which details University regulations on plagiarism and gives examples of plagiarised and non-plagiarised work. Attendance at the sessions timetabled on plagiarism for all PGT students is mandatory. All students should familiarise themselves with the University regulations on plagiarism, which can be found in the Quality Manual at:

<http://www.nottingham.ac.uk/quality-manual/assessment/offences.htm>

In summary, all sources of factual information presented in coursework assignments or dissertations submitted by students should be cited in the text (e.g. Clare et al. (1996)) and the full reference provided in the reference list at the end of the work (see example below). In addition to the general citation of work referred to above, the sources of all tables, data, images, graphics and other similar material must be cited. Where text is taken verbatim from source material, this should be placed within inverted commas and the source should be cited with the name of the author(s), date of publication and page numbers from which the verbatim text was taken (e.g. Clare et al. (1996) pp. 288-289). The complete reference must be included in the reference list at the end of the piece of work. The standard way of referencing used in the School of Biosciences is the Harvard System. All source material e.g. books, journals, reports and web sites must be included in the reference list.

An example of general citation of work would be:

“.....there are a number of methods by which unit costs (total costs per unit of output) can be reduced. Clare et al. (1996) outlined the role of Decision Support Systems in reducing these costs.”

This would appear in the reference list as:

Clare, R.W., Spink, J.H., Scott, R.K., Foulkes, J., Stokes, D., Berry, P., Griffin, J.M., Sylvester-Bradley, R., Bryson, R.J. and Paveley, N.D. (1996). Expert Input Management for Cereals, Farm Management 9: 287-304.

For books, the title is put in italics, followed by the place of publication and the publisher’s name in normal font. For web sites, the URL should be given, together with the name of the organisation responsible and the date when the web site was accessed.

As noted in the School of Biosciences Undergraduate and MSc Courses Handbooks, you are required to submit work electronically. All work will be submitted to automatic plagiarism detection software for scrutiny.

If you have any questions regarding plagiarism and how to ensure you avoid committing this academic offence, please discuss these with your module convenor before submitting your work. You are also encouraged to use Turnitin software to self-assess your work for plagiarism before submission.

## Referencing WWW and Internet sites

Using World Wide Web pages and internet sites (newsgroups, discussion groups etc.) as sources of information for research requires special care. It is important to recognise that such sites are not refereed and that the information they contain is very unlikely to have been subjected to any kind of expert scrutiny or peer review. Even the information published by “moderated” sites has usually only been checked for acceptability and relevance, not veracity. This makes such sources intrinsically unreliable compared with other published material. Secondly, be aware that WWW sites are inherently unstable. The owner of the site can, and probably will, update or modify its content on a regular basis (the immediacy and transience of the medium are two of its great attractions). A site’s location can change at any time and may even be shut down altogether. Unlike conventional library or archive material, it may not be there next time you or your reader needs it.

If you wish to cite a WWW page or internet site, give the following information in your reference:

The full address, usually starting with http:// and giving the complete names of all sub-pages. (NB, some web browsers routinely truncate page addresses on the screen, especially if they have more than a very small number of “slash” (/) dividers).

Any source date attached to the article.

The full date (day/month/year) on which you last accessed the location.

The title of the page or article.

The name and professional affiliation of any individual associated with the article.

The name of the organisation hosting the site (if this is not obvious from the site address).

Example:

Secretariat of the Convention on Biological Diversity (1998) IV/6. Agricultural biological diversity. Texts Of The Decisions Adopted By The Fourth Meeting Of The Conference Of The Parties (25/6/98). http://www.biodiv.org/cop4/FinalRep-/6.html (Accessed 19/8/98).

As with all other referencing operations, your aims are

to give full recognition to your source of information and avoid the risk of plagiarism

to absolve yourself from any direct responsibility for the material, and

to provide sufficient detail for someone else to locate the information.

## Assessments – Extenuating Circumstances

Extenuating circumstances that may influence examination performance, or your ability to comply with coursework assignments and/or submission deadlines, must be documented (using the form available) <http://www.nottingham.ac.uk/studentservices/contact-us/extcirc-form.aspx> and presented to the Senior School Tutor. Such circumstances (that may relate to examinations and coursework) are formally considered by the Extenuating Circumstances Committee, School of Biosciences.

<http://www.nottingham.ac.uk/academicservices/qualitymanual/assessmentandawards/extenuating-circumstances-policy-and-procedures.aspx>

Please be aware of the School guidance on Extenuating Circumstances (EC’s):

“*In general terms, this procedure is intended to support students with****exceptional, unforeseeable****(in that the student could not reasonably have been expected to avoid them),****short-term circumstances****affecting their ability to study****or****take assessments or students who have had a late diagnosis of a disability or long-term medical condition*.”

As for School regulation, EC claims must be submitted in advance of a coursework deadline and no later than 7 days after an affected examination. Personal tutors **cannot** provide you with a statement if you inform them about your circumstances only at the time of making a claim.

## Assessment regulations

**Progression Information:**

This programme will comply with the University Regulations for Taught Masters Degrees, Postgraduate Diploma and Postgraduate Certificate courses which can be found at: <http://www.nottingham.ac.uk/quality-manual/study-regulations/taught-postgraduate-regulations.html>

To progress to Part II (the research stage) of the degree course, students must achieve a credit-weighted overall average Part I (taught stage) mark which is equal to or greater than 50%.

**Re-examination:**

Those candidates who fail to progress to Part II may be re-assessed at the next appropriate re-sit opportunity. Such students in this situation will have their course put into suspense and will not be registered students of the University of Nottingham until they successfully achieve the criteria for progression. Those students who are successful at re-sit will be allowed to progress to Part II of their course the following academic session, although the resit mark will not count to the calculation of the classification (Merit / Distinction) of the award.

Students who fail the re-assessment, or who elect not to progress to Part II the following year, may be awarded a PG Dip if they have successfully completed 120 credits. Students who fail the Part II element would normally be allowed to re-submit their Research Project within one year of the failure, but would not be allowed to repeat any experimental work.

**Awards and Compensation:**

*MSc -* For the MSc award candidates will be deemed to have passed if they have achieved:

A minimum credit-weighted overall average mark of 50% or above in 180 credits.

Have passed a minimum of 140 credits.

Have no more than 40 credits in the mark range of 40 - 49%.

Notwithstanding the above, unless stated in the programme specifications for Taught Masters Degrees and Diplomas, module marks for up to 20 credits can be below 40% and be compensated if the student has passed modules worth at least 80 credits and has a weighted average of at least 50%.

The Masters project module (D24PRO) is non-compensable and thus a mark of 50% or above must be achieved.

Candidates achieving a credit-weighted overall average mark of at least 70% will be awarded the degree with Distinction.

Candidates achieving a credit-weighted overall average mark of at least 60% (but not above 69%) will be awarded the degree with Merit.

Candidates achieving a credit-weighted overall average mark of at least 50% (but not above 59%) will be a pass classification.

Candidates for the Masters degree who fail to reach the required standard for the award of the Masters degree may be awarded a Postgraduate Diploma.

*Postgraduate Diploma-* For the award of PG Dip candidates will be deemed to have passed if they have achieved:

A minimum credit-weighted overall average mark of 40% or above in 120 credits.

Have passed a minimum of 80 credits, where the pass mark at PG Dip is 40%.

Have no more than 40 credits in the mark range of 30 - 39%.

Have no module marks below 30%.

Candidates achieving a credit-weighted overall average mark of at least 70% will be awarded the PG Dip with Distinction.

Candidates achieving a credit-weighted overall average mark of at least 60% will be awarded the PG Dip with Merit.

Candidates for the Postgraduate Diploma who fail to reach the required standard for the award may be awarded a Postgraduate Certificate.

*Borderline cases* - Candidates whose final mark is regarded as borderline, may be considered for the award of the next higher classification.

The method of determining whether candidates are awarded the higher classification invariably involves consultation with the appropriate External Examiner(s).

If it is agreed with the External Examiner that the candidate should receive the higher class of award, the marks are not altered, but the degree classification on the final mark sheet is signed by the External Examiner to approve the award of the higher class of degree.

Candidates with marks outside the borderline mark who have extenuating circumstances: If the External Examiner approves the award of a higher class of degree than such a candidate's marks would otherwise determine, then he or she provide a written report confirming the award of the higher degree. Marks are not adjusted in this case.

Marks going forward as a basis for classification shall match those on the transcripts in the possession of students. Individual marks may NOT be adjusted internally, once approved by the External Examiner, to alter a classification.

# School of Biosciences Qualitative Marking Schemes

The School’s qualitative marking schemes provide general guidance for assessment of various types of work. However, in applying these schemes to individual assessments, account must be taken of the level at which students are working. The criteria outlined below provide general guidance, and not all criteria will be applicable to all forms of assessment.

## Academic Levels

**Level 4** Masters level, generally taken by post-graduate or year 4 undergraduate students.

## Major considerations

**Mark Class A (Distinction)**

**Level 4:** Detailed, orderly and critical work with clearly specified focus/foci exhibiting rigorous analysis, synthesis and evaluation. There must be evidence that the student has developed their own arguments.

**Mark Class B (Merit)**

**Level 4:** Evidence of originality and significant critical analysis. There is evidence of integration of material from a variety of sources.

**Mark Class C (Pass)**

**Level 4:** There is reasonable understanding and analysis supported by a range of relevant evidence.

**Mark Class D**

**Level 4:** Basic understanding with limited evidence of understanding and some attempt at analysis.

**Mark Classes E/F**

**All levels:** Work does not demonstrate above criteria and reference should be made the qualitative criteria in deciding final mark.

**Marking criteria**

|  |  |  |  |
| --- | --- | --- | --- |
| **CLASS** | **%** | **QUALITATIVE ASSESSMENT CRITERIA - GENERAL GUIDELINES FOR ESSAYS & REPORTS** |  |
| Distinction  A1  A2  A3  A4 | 100  90  80  73 | a. Excellent report structure with professional presentation of figures, tables, diagrams, references etc.; evidence of originality/novelty in presentation.  b. Deep understanding of subject; all arguments carefully developed and clearly expounded.  c. Considerable and effective use of literature information, beyond that supplied as taught material.  d. Clear evidence of critical thinking, originality and novelty. |  |
| Merit  B1  B2  B3 | 68  65  62 | a. Well organised report; appropriate choice of illustrative figures, tables, diagrams etc.; clearly presented throughout.  b. Sound grasp of subject material; generally logical arguments.  c. Reasonable evidence of wider study beyond lecture material.  d. Some evidence of independent thinking and originality. |  |
| Pass  C1  C2  C3 | 58  55  52 | a. Generally clear report conforming with accepted format but with some errors in style and/or omissions in presentation of illustrative figures.  b. Reasonable understanding of subject material, but some flaws in the logic of arguments and factual errors.  c. Only limited evidence of wider study and use of literature information.  d. Very little evidence of independent thinking or originality. |  |
| Soft fail  D1  D2  D3 | 48  45  42 | a. Little attention given to report structure; limited use of illustrative figures, tables etc.; serious flaws in presentation.  b. Limited understanding of subject; considerable factual errors demonstrated.  c. Virtually no inclusion of literature information beyond lecture material.  d. Virtually no evidence of independent thinking or originality. |  |
| Fail  E | 35 | a. Very poorly structured; disorganised; missing sections; minimal presentation of supporting data, figures etc.  b. Minimal understanding of subject; serious factual errors; general lack of any logical arguments.  c. Virtually no inclusion of literature information.  d. No evidence of independent thinking or originality. |  |
| Fail  F1 | 25 | Very poor coverage of material with little information that is relevant.  Virtually no evidence of understanding the question; minimal attempt to provide a structured answer. |  |
| Fail  F2 | 10 | A few lines of relevant material |  |
| Fail  F3 | 0 | No relevant material |  |

1. Only broad classes (A,B,C,D and E) have qualitative criteria attached; the division into (e.g.) C1, C2, C3 etc. is at the discretion of the examiner.

2. The qualitative criteria include consideration of: a. The quality of the report/essay etc. - the use of sections; diagrams; figures etc.; citation of references; general neatness etc. b. Student’s knowledge of subject; depth and quality of answer. c. Evidence of reading / study beyond regurgitation of standard taught material.

d. Independent or critical thinking / originality etc.

|  |  |  |
| --- | --- | --- |
| **CLASS** | **%** | **QUALITATIVE ASSESSMENT CRITERIA - GENERAL GUIDELINES FOR ORAL PRESENTATIONS** |
| Distinction  A1  A2  A3  A4 | 100  90  80  73 | Clearly audible, well-paced presentation delivered without obviously reading from notes in the time allocated. Addressed to the audience.  Very well-planned with a clear logical structure focused on the topic being presented. Excellent introduction and summary.  Excellent use of visual aids which are easy to read and understand. Main points of slides clearly explained.  Content of presentation very well-researched with relevant data where appropriate. Response to questions asked indicates thorough understanding. |
| Merit  B1  B2  B3 | 68  65  62 | Clearly audible, well-paced presentation delivered with some reading from notes in the time allocated. Mainly addressed to the audience.  Quite well-planned with logical structure focused on topic being presented. Good introduction and summary.  Good use of visual aids which are quite clear to read and understand. Good attempt to explain main points of slides.  Content of presentation quite well-researched with relevant data where appropriate. Response to questions asked indicates good understanding. |
| Pass  C1  C2  C3 | 58  55  52 | Audible presentation which may be too fast or too slow. Tendency to read from notes and to address floor or ceiling. May be outside time allocated  Some flaws in structure and not always focused on the topic being presented. Weak introduction and summary.  Adequate use of visual aids which are not always easy to read and understand. Little attempt to explain main points of slides.  Some omissions in literature research and little relevant data presented. Response to questions asked indicates incomplete understanding. |
| Soft fail  D1  D2  D3 | 48  45  42 | Difficult to hear. Too fast or too slow. Read from notes and little attempt to address the audience. Outside allocated time.  Poorly-structured, rambling presentation which strays from topic being presented. Very weak introduction or summary.  Poor visual aids which are difficult to read and understand. Poor explanation of main points of slides.  Little evidence of literature research and no data presented. Response to questions indicates poor understanding. |
| Fail  E | 35 | Mumbled, halting presentation. Much too fast or too slow. No attempt to address audience and well outside allocated time.  No discernible structure to presentation with some relevant material. No introduction or summary.  Very poor visual aids. No explanation of main points of slides.  Poor literature research and no data presented. Response to questions shows serious weakness in understanding. |
| Fail  F1 | 25 | Extremely difficult to hear presentation and well outside allocated time.  No discernible structure and very little relevant material. No introduction or summary.  No visual aids used.  Little evidence of research. Response to questions shows minimal understanding. |
| Fail  F2 | 10 | Very minimal attempt to give a presentation. |
| Fail  F3 | 0 | Failed to give a presentation. |

1. Only broad classes (A, B, C, D and E) have qualitative criteria attached; the division into (e.g.) C1, C2, C3 etc. is at the discretion of the examiner.

2. The qualitative criteria include consideration of: a. Presentation of talk; audibility, speed, use of notes, addressed to audience, time keeping.

b. Organisation of talk; logical coherent progression with introduction and summary. c. Use of visual aids; clarity and explanation of salient points.

d. Research and response to questioning; evidence of extensive reading, presentation of own data (where relevant), evidence of wider understanding.

|  |  |  |
| --- | --- | --- |
| **CLASS** | **%** | **QUALITATIVE ASSESSMENT CRITERIA - RESEARCH PROJECT EXPERIMENTAL WORK** |
| Distinction  A1  A2  A3  A4 | 100  90  80  73 | a. Extremely independent and able to work with minimal direct supervision. Shows a great deal of initiative and perseverance when things go wrong.  b. Very well organised; able to plan time in laboratory/field with minimal assistance.  c. Technically extremely competent; learns new methods quickly with minimal training.  d. Excellent critical ability and able to appreciate limitations of techniques used. |
| Merit  B1  B2  B3 | 68  65  62 | Able to work independently with little direct supervision. Shows some initiative and perseverance.  Well organised; able to plan time in laboratory/field with little assistance.  Technically competent; learns new methods quite quickly when given training.  d. Some critical ability and appreciation of limitations of techniques used. |
| Pass  C1  C2  C3 | 58  55  52 | Needs quite close supervision and shows little initiative. Tendency to give up too quickly when things go wrong.  Quite well organised but needs considerable help to plan experiments and time spent in laboratory/field.  Technically quite competent, but liable to make mistakes is not supervised closely. Slow at learning new techniques.  Limited critical ability and little appreciation of limitations of techniques used. |
| Soft fail  D1  D2  D3 | 48  45  42 | Little or no ability to work independently. Shows very little initiative. Liable to give up when things go wrong.  Poorly organised; unable to plan time in laboratory/field without direct instruction.  Technically incompetent. Liable to make mistakes even when supervised closely. Very slow at learning new techniques.  Virtually no critical ability or appreciation of limitations of techniques used. |
| Fail  E | 35 | No ability to work independently. Minimal effort put into work.  Poorly organised and liable to miss planned work sessions.  Technically very incompetent. Often makes mistakes, even when closely supervised. Extremely slow at learning new techniques.  No critical ability or appreciation of limitations of techniques used. |
| Fail  F1 | 25 | Rarely does any experimental work.  Very likely to miss planned work sessions.  Often makes errors when carrying our simple procedures.  No critical ability or appreciation of limitations of techniques used. |
| Fail  F2 | 10 | Very minimal laboratory/field work attempted. |
| Fail  F3 | 0 | No laboratory/field work attempted |

1. Only broad classes (A, B, C, D and E) have qualitative criteria attached; the division into (e.g.) C1, C2, C3 etc. is at the discretion of the examiner.

2. The qualitative criteria include consideration of: Independence and initiative. Perseverance when work does not go according to plan.

Organisational ability; can the student plan their use if time effectively and efficiently? Technical ability; can the student carry out work competently and learn new techniques quickly. Critical ability and appreciation of the limitations of the work.