

BL4222 Metabolic and Clinical Biochemistry

(BL4222 online module handbook version 29)

Credits: 15

Semester: 1

Module Organiser

Dr Gerald Prescott

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01334 463562

Pre-requisite Modules:

Permission of biology

honours adviser required

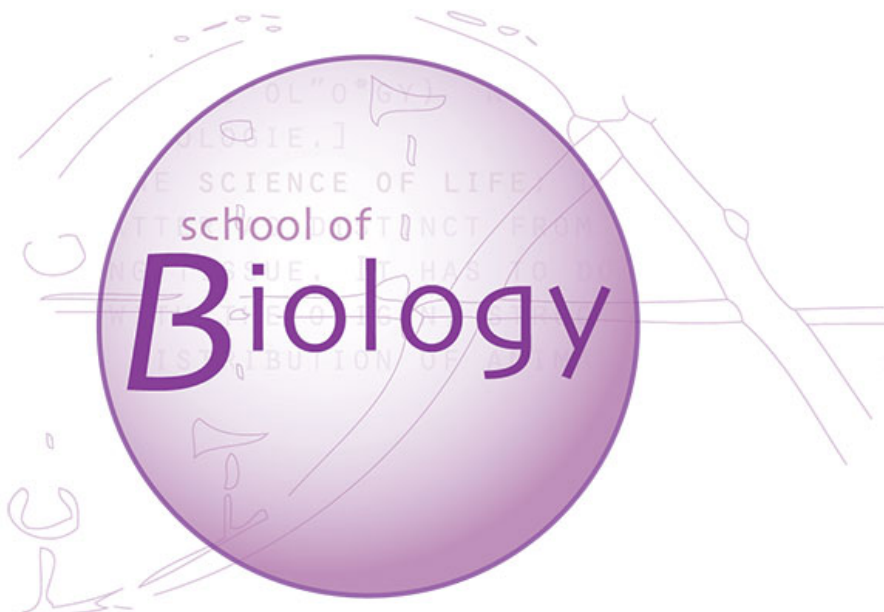
Anti-requisite Modules:

Post-requisite Modules:

Additional Module

Information:

Please [check MMS](#) regularly for additional module information



This module extends the students' knowledge of human metabolism and applies it to pathologies. The syllabus includes: a study of the integration of whole body metabolic processes, discussion of the role of biochemistry in investigating and monitoring human disease, the methods of diagnosing and treating some common diseases. Topics will cover integration of whole body metabolism, starvation processes, diabetes, metabolic variability, inborn errors of metabolism, endocrinology, homeostasis, plasma protein metabolism, muscle and hepatic metabolism, drug disposition and metabolism, and defects in glucose and lipid metabolism.

[View the current Biology Online Module Catalogue for BL4222](#)

[BL4222View BL4222 \(2018/9\) in the University of St Andrews Module Catalogue](#)

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BL4222: Timetable

Legend (not all modules have every event type):

lecture	tutorial	workshop	practical	other
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Semester 1: Week 1

DATE & TIME	VENUE	STAFF	EVENT
Monday 17-09-2018 09:00 to 10:00	Mathematical Institute Maths Tutorial Room 1C	DrJoyJohnstone	Workshop W1: The Role of the Clinical Biochemist <small>2018-9_BL4222_W1</small>
Monday 17-09-2018 10:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrNeilGreig	Workshop W2: Renal Part 1 <small>2018-9_BL4222_W2</small>

Semester 1: Week 2

DATE & TIME	VENUE	STAFF	EVENT
Monday 24-09-2018 09:00 to 10:00	Mathematical Institute Maths Tutorial Room 1C	DrHeatherHolmes	Workshop W3: Diabetes Part 1 <small>2018-9_BL4222_W3</small>
Monday 24-09-2018 10:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrHeatherHolmes	Workshop W4: The role of laboratory testing in screening <small>2018-9_BL4222_W4</small>

Semester 1: Week 3

DATE & TIME	VENUE	STAFF	EVENT
Monday 01-10-2018 09:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrNeilGreig	Workshop W5: Renal Part 2 <small>2018-9_BL4222_W5</small>
Monday 01-10-2018 10:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrNeilGreig	Workshop W6: Therapeutic Drugs Part 1 <small>2018-9_BL4222_W6</small>

Semester 1: Week 4

DATE & TIME	VENUE	STAFF	EVENT
Monday 08-10-2018 09:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrJoyJohnstone	Workshop W7: Liver Part 1 <small>2018-9_BL4222_W7</small>
Monday 08-10-2018 10:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrJoyJohnstone	Workshop W8: Point of Care Testing <small>2018-9_BL4222_W8</small>

Semester 1: Week 5

DATE & TIME	VENUE	STAFF	EVENT
Monday 15-10-2018 09:00 to 10:00	Mathematical Institute Maths Tutorial Room 1C	DrNeilGreig	Workshop W9: Therapeutic Drugs Part 2 <small>2018-9_BL4222_W9</small>
Monday 15-10-2018 10:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrHeatherHolmes	Workshop W10: Diabetes Part 2 <small>2018-9_BL4222_W10</small>

Semester 1: Week 7

DATE & TIME	VENUE	STAFF	EVENT
Monday 29-10-2018 09:00 to 10:00	Mathematical Institute Maths Tutorial Room 1C	DrJoyJohnstone	Workshop W11: Plasma Proteins Part 1 <small>2018-9_BL4222_W11</small>
Monday 29-10-2018 10:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrJoyJohnstone	Workshop W12: Liver Part 2 <small>2018-9_BL4222_W12</small>
Friday 02-11-2018 09:00 to 10:00	The Gateway Gateway seminar room 6	DrJohnChalmers	Lecture L1: Clinical Endocrinology <small>2018-9_BL4222_L1</small>

Semester 1: Week 8

DATE & TIME	VENUE	STAFF	EVENT
Monday 05-11-2018 09:00 to 10:00	Mathematical Institute Maths Tutorial Room 1C	DrHeatherHolmes	Workshop W13: Thyroid Part 1 <small>2018-9_BL4222_W13</small>
Monday 05-11-2018 10:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrHeatherHolmes	Workshop W14: Thyroid Part 2 <small>2018-9_BL4222_W14</small>

Semester 1: Week 9

DATE & TIME	VENUE	STAFF	EVENT
Monday 12-11-2018 09:00 to 11:00	Mathematical Institute Maths Tutorial Room 1C	DrJoyJohnstone	Workshop W15: Plasma Proteins Part 2 <small>2018-9_BL4222_W15</small>
Friday 16-11-2018 09:00 to 10:00	The Gateway Gateway seminar room 6	DrStephenRogers	Lecture L2: Iron Metabolism <small>2018-9_BL4222_L2</small>

Semester 1: Week 11

DATE & TIME	VENUE	STAFF	EVENT
Tuesday 27-11-2018 10:00 to 13:00	Medical and Biological Sciences Building Seminar Room 2	Dr Gerald Prescott	Other O1: Student Case Presentations <small>2018-9_BL4222_O1</small>
Thursday 29-11-2018 13:00 to 17:00	Biomolecular Sciences Building Lecture theatre	Dr Gerald Prescott	Other O2: Student Case Presentations <small>2018-9_BL4222_O2</small>

BL4222: Reading List

[BL4222Click for BL4222 reading list](#)

BL4222: Assessment

1.5-hour Written Examination = 30%, Coursework = 70%

Assessment:

Due by:

Feedback due by:

Type:

Weight:

Essay

16/10/2018 12:00

06/11/2018 12:00

Turnitin

50%

Assessment:

Due by:

Feedback due by:

Type:

Weight:

Case presentation

29/11/2018 13:00

20/12/2018 13:00

Turnitin

50%

(MMS assessment data cached: 25 April 2019
23:20:21.)

The following related information applies to all
Biology modules:

School of Biology Marking Criteria:

Late submission of continuous assessment work:

Exam details:

Exam timetable:

Expected attendance:

Good Academic Practice & Avoiding Academic
Misconduct:

University Student Handbook:

School and University regulations in the School
and University Undergraduate Handbook relating
to absence reporting, penalties and rules for late
submission of work, extensions for coursework,
return of coursework, S-coding, good academic
practice and Academic Alerts.:

[See School of Biology Undergraduate Handbook](#)

All late submissions of coursework that do not require electronic submission
should be made via the **late submissions box** in the Biomolecular Science
Building (beside the Teaching Office)

[See School of Biology Undergraduate Handbook](#)

see

[http://www.st-andrews.ac.uk/students/academic/examinations/examtimetab
lescurrent/](http://www.st-andrews.ac.uk/students/academic/examinations/examtimetables/current/)

[See School of Biology Undergraduate Handbook](#) for detailed attendance
requirements.

[See School of Biology Undergraduate Handbook](#)

[University Student Handbook](#)

[School of Biology Undergraduate Handbook University Student Handbook](#)

Who to ask

(Information in this section applies to all Biology Modules)

Questions about different aspects of the module should be directed to different people:

Questions about

General teaching matters
Rescheduled or cancelled events
Lecture or practical content
Completing assessed practical assignments
Completing assessments

Marking on continuous assessment

Marking on exams

Rearranging practical days

Absence and/or extensions

Difficulties with academic progress which impact more than one module:

Overall performance, progress or future directions:

Disability:

For advice and support on any issue e.g. academic, financial, international, personal or health matters, or if you are unsure of who to go to for help:

University assistance with urgent matters out of office hours:

Contact

Biology Teaching Office (bioteach@st-andrews.ac.uk)

Check your University email

The lecturer who presented the material

The lecturer who set the assignment

Module Organiser ([Dr Gerald Prescott grp2@st-andrews.ac.uk](mailto:Dr.Gerald.Prescott_grp2@st-andrews.ac.uk))

The Demonstrator or Module Organiser ([Dr Gerald Prescott grp2@st-andrews.ac.uk](mailto:Dr.Gerald.Prescott_grp2@st-andrews.ac.uk))

Module Organiser ([Dr Gerald Prescott grp2@st-andrews.ac.uk](mailto:Dr.Gerald.Prescott_grp2@st-andrews.ac.uk))

[Grant Brown](#)

Module Organiser ([Dr Gerald Prescott grp2@st-andrews.ac.uk](mailto:Dr.Gerald.Prescott_grp2@st-andrews.ac.uk)) **and** the Biology Teaching Office (bioteach@st-andrews.ac.uk)

Year Coordinator

See [School of Biology Undergraduate student handbook](#) for list:

<http://biology.st-andrews.ac.uk/documents/UndergraduateHandbook.pdf>

Advisor of Studies

Disability Coordinator ([Dr Jacqueline Nairn jn37@st-andrews.ac.uk](mailto:Dr.Jacqueline.Nairn_jn37@st-andrews.ac.uk))

Advice & Support Centre

Address: 79 North Street, St Andrews

Email: theasc@st-andrews.ac.uk

Web: <https://www.standrews.ac.uk/ask-a-question/>

Tel: 01334 462020

Tel: 01334 476161

Web: <https://www.st-andrews.ac.uk/students/advice/counselling/incrisis/>

Biology Teaching Office:

We are happy to hear from you about teaching matters. The School of Biology Teaching Office is open Monday to Friday 09.00 - 13.00 and 14.00 - 17.00. School of Biology staff will respond to your emails during these hours. Our team will provide a response to you within three working days.

Biology Teaching Office, The Biology Hive, New Technology Centre, University of St Andrews, North Haugh, St Andrews, Fife KY16 9SR

Email: bioteach@st-andrews.ac.uk

Tel: 01334 463602/3566

BL4222: Contributing Staff

[Dr Gerald Prescott](#)
(Module Organiser)

Senior Lecturer

grp2@st-andrews.ac.uk

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(Module Organiser)

Senior Lecturer

grp2@st-andrews.ac.uk

BL4222: Learning Outcomes

Students completing module BL4222 successfully should be able to:

- Demonstrate a critical understanding of the biochemical and metabolic basis of disease.
- Evaluate the role clinical biochemistry plays in the investigation and monitoring of disease.
- Critically evaluate the specificity and sensitivity of clinical investigations.

BL4222: Acquired Skills

Practical Skills

Transferable Skills

- Group discussion - leading
- Group discussion - participating
- Short individual presentation on given topic (up to 15 min)
- Short informal presentation (using PowerPoint or not)
- Handout (for presentation or poster)
- Short essay (1000-2000 words)
- Finding information on the web
- Working in pairs/small groups

Policies

(Information in this section applies to all Biology Modules)

- The procedures and regulations followed by the School of Biology are outlined in the [University Handbook](#) and in the [School of Biology Undergraduate Handbook](#) (<https://synergy.st-andrews.ac.uk/biocurrentstudent/files/2017/09/UndergraduateHandbook.pdf>).
- All coursework associated with the module must be completed and submitted by its due date.
- Specific School regulations relating to absence reporting, penalties and rules for late submission of work, extensions for coursework, return of coursework, S-coding, Good Academic Practice and Academic Alert are stated in the [School of Biology Undergraduate Handbook](#) and students are required to carefully read these regulations.
- Students are also referred to the University Handbook, available at: <http://www.st-andrews.ac.uk/studenthandbook/>