

# Interdisciplinarity in practice: From delivery to assessment

Interdisciplinary Learning and Teaching Conference,  
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**WARWICK**  
Warwick Medical School

## Activity



In your groups share your experiences and ideas regarding the design and/or delivery of interdisciplinary learning and teaching. Consider any courses, modules, sessions and assessments that you have been involved with (10 minutes).

- This could include approaches you have tried or heard of
- Dos and don'ts based on your experience
- Capture your suggestions and ideas in your group's Padlet, using the columns and headings provided

Share your suggestions with other groups (5 minutes)

# Activity: Padlet

padlet

Clay, Richard · 1m

## Group 1 - Interdisciplinarity in practice

In your groups share your experiences and ideas regarding the design and/or delivery of interdisciplinary learning and teaching. Consider any courses, modules, sessions and assessments that you have been involved with. Add posts to the page using the columns and headings provided.

Courses Modules Sessions Assessments Dos Don'ts

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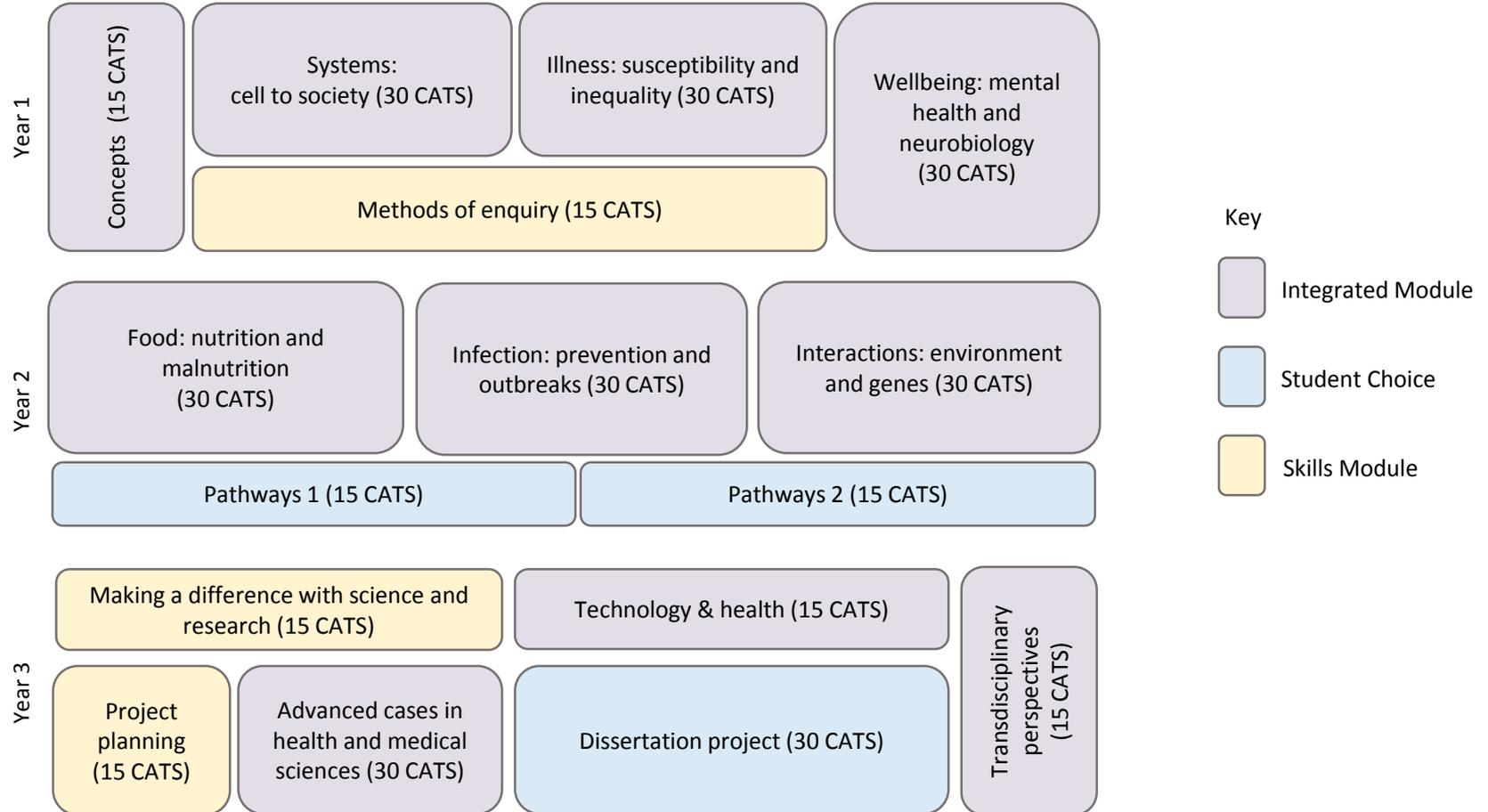
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## Sharing our experience: BSc Health and Medical Sciences

- A newly launched interdisciplinary undergraduate course that aims to promote interdisciplinary practice for both educators and learners
- Holistic approach to managing complex local and global problems in health through the integrated perspectives of health science, and medical science
- Breakdowns the rigid boundaries of several disciplines, from health psychology, policy, ethics and economics to anatomy, molecular biology, and translational research to enable a more rounded approach to resolving complex health problems.



# BSc Health and Medical Sciences



# Concepts module

- Aims to provide students with basic grounding in key topics, theories, principles, language and nomenclature
- Develop skills in academic writing and synthesis
  - Inclusive of how to integrate information across disciplines and demonstrate understanding of a holistic overview of health problems
- Students are introduced to various subject areas:
  - Cellular biology
  - The genome
  - Epigenetics
  - Basic anatomy
  - Epidemiology
  - Health ethics and health law
  - Psychology
  - Health economics
  - Health sociology



# Group discussions & debates

- Use of learning and teaching approaches that allows students and educators to integrate knowledge learnt
- Following sessions focused on knowledge acquisition, linked group discussions and debates are also used
  - Allows consolidation of students' learning
  - Nurtures ability to apply their understanding to novel contexts
- Group discussions
  - Active learning and peer learning
- Debates
  - Students synthesise arguments & counter arguments
  - Develops critical thinking in a fast nature
  - Through teamwork



# Case-Based Learning

Learner-centred approach

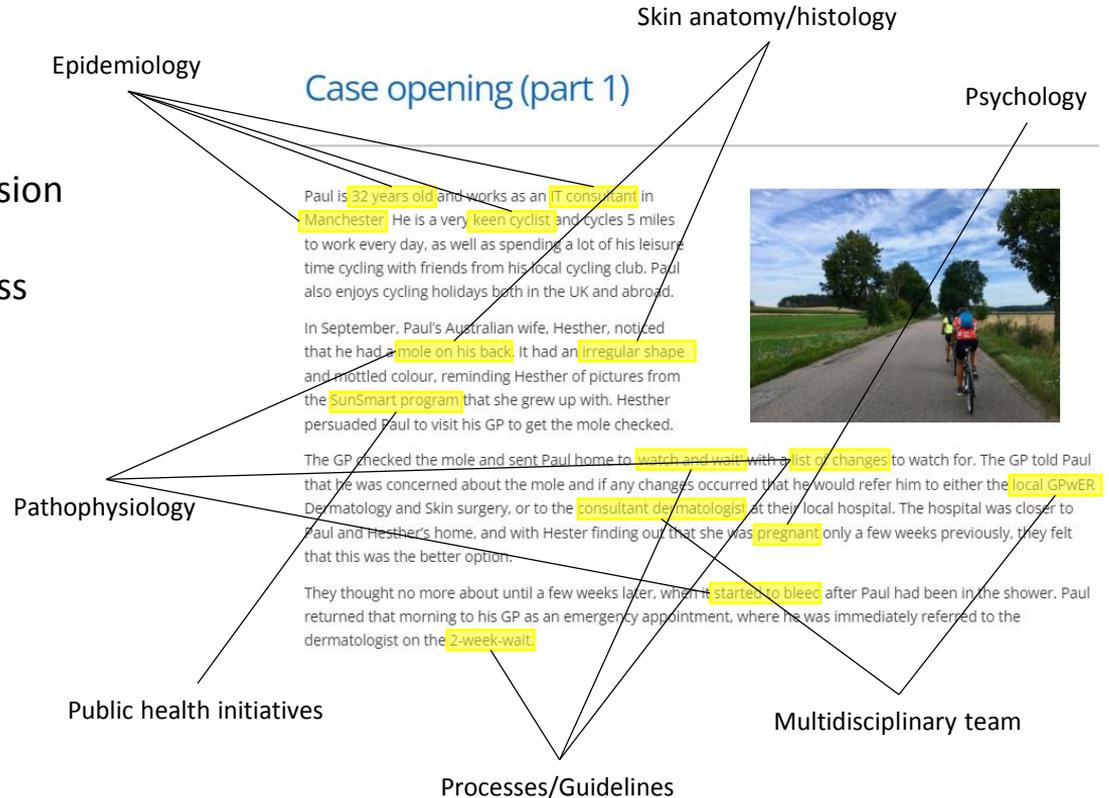
Small group learning

Realistic case scenario stimulates discussion

Contains triggers for learning areas across many disciplines:

- Medical sciences
  - Anatomy
  - Physiology
  - Pathology
- Health sciences
  - Psychology
  - Global health
  - Public health

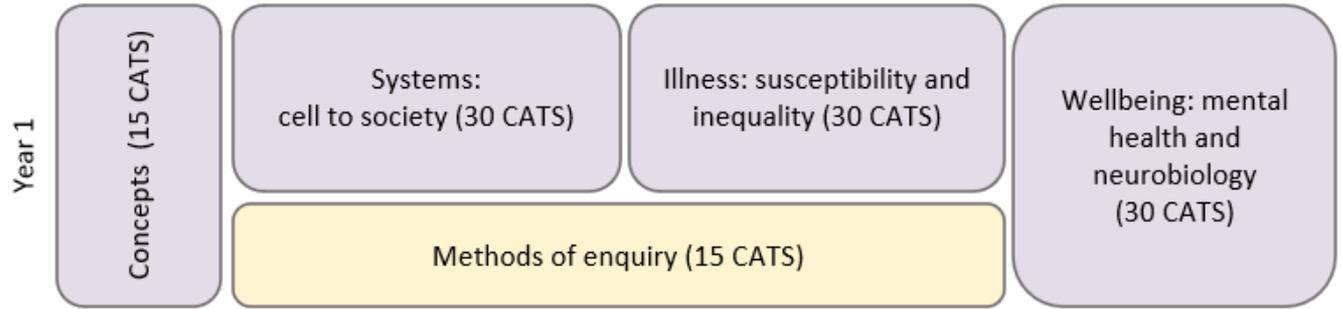
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# Assessments

Integration at the heart of all assessments and assessed as also shown in marking rubric

- Concept maps
- Case scenarios
- Synoptic exams



Synoptic exams:

You are the Epidemiologist on-call in your local UK-Health Security Agency team. You have been asked to attend an Outbreak Control Team (OCT) meeting about an outbreak of Salmonella. Preliminary information suggests all cases had attended the same wedding in Coventry. Most cases became unwell between 12-72 hours after the wedding. Four of the guests are hospitalised on the Infectious Diseases ward at University Hospitals Coventry and Warwickshire. Not all guests are unwell. You have the full list of ALL guests who attended the wedding, and are willing to be contacted.

## Student voice



Filipa Alpeza  
Year 2 HMS Student

## Student voice

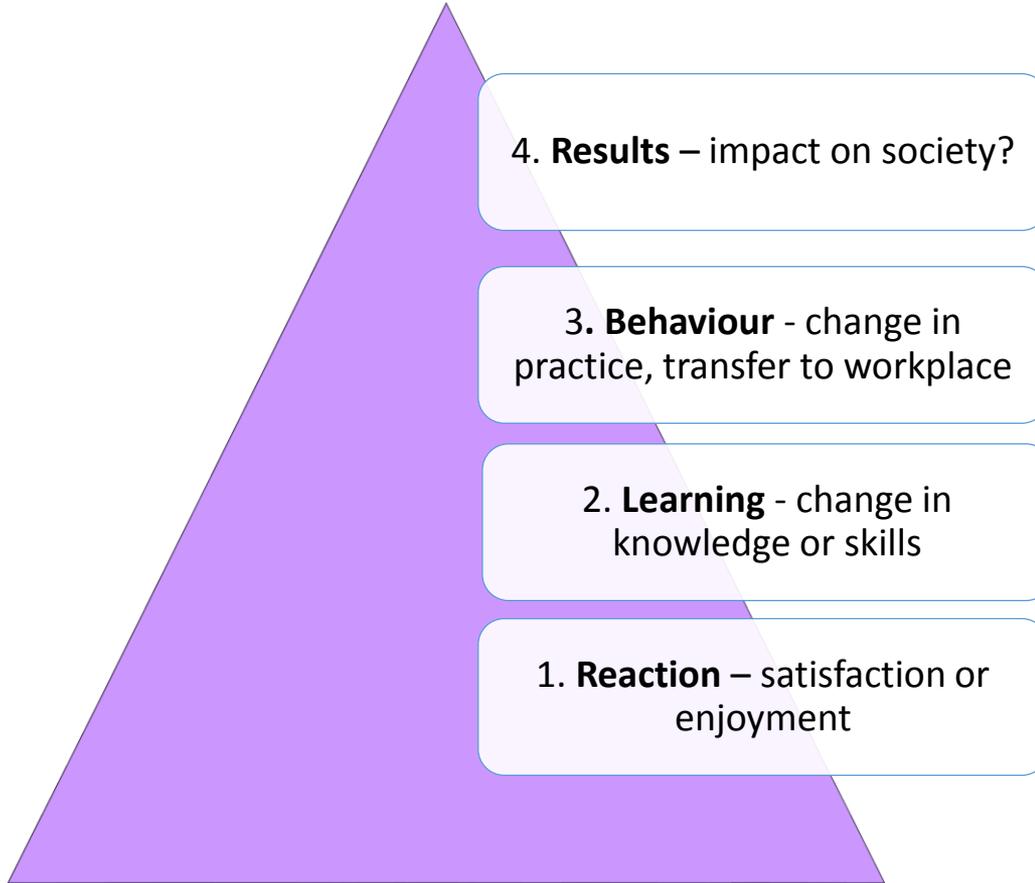
### Rebecca – HMS year 2 student

- My experience of interdisciplinary learning:
  - CBL is very effective
  - Assessments using case studies
- **Challenges of IATL:**
  - Assessments can be slightly ambiguous
  - Assessments using case studies
- **Benefits of IATL:**
  - Prepares us for the working environment
- Possible suggestions
  - Training for students and staff on how to integrate health and medical sciences information



Rebecca Campbell  
Year 2 HMS Student

# Evaluation – Kirkpatrick's Hierarchy as a framework



4. Sustainability  
Social responsibility  
ID research

3. Collaborative, ID problem solving,  
critical thinking  
Employability, Careers

2. Learner self-rated change,  
Assessment results  
synoptic exams, ID projects, CBL

1. Evaluation questionnaires;  
*collaboration?*  
*Integrating knowledge?*  
Attendance, engagement

## A few final points

- Interdisciplinary learning and teaching offers rich opportunities for supporting learners to think about and address 21<sup>st</sup> century problems
- However, this can require a shift in thinking from for both students and educators...
- Opportunities for peer discussion and sharing good practice are key for developing interdisciplinary approaches

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