

Assessing Entrepreneurship Learning Outcomes in Biosciences

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Assessment for Learning

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Overview

- **What does entrepreneurship mean in this context?**
- **Delivery and assessment options**
- **Assessment case study in Biomedical Sciences**
 - **Practice**
 - **Evaluation**
 - **Dissemination**

What is entrepreneurship?

Change for profit (social benefit)

- **Vision, risk taking** (calculated) & **drive**



Idea



Opportunity



Resources

Why? An active response to ...

- Recent changes in the **world of work**
- **Employers'** requirements for knowledge, skills and attitudes
- **Government policies** aimed at improving quality of life and industrial competitiveness
- UU policy to help staff and students **maximise their potential**

What is UU's policy?

Embed a **culture** of entrepreneurship and innovation
in **every student** and throughout **every course**

Support network

Team work

Knowledge transfer (IP)

(Business) plan

Enterprise set-up

Research a need

Sources of finance

Future trends

Communicate ideas

Creativity

e-learning environment

LOS

Guiding principles adopted

- **Nurture** (not push)
- Bioscience graduates should be able to **answer** “**Yes**” if asked “Did they study entrepreneurship?”
- **Highly participative** delivery
- Must be **integrated** within the course
- Exposure to **role models**

Delivery options

- **Stand alone module** that meets all learning outcomes
 - Enterprise and Employability (10 credits, level **2**)
 - Innovation-Led Entrepreneurship (10 credits, level **2**)
 - Exploitation of Biotechnology (20 credits, level **3**)
 - Enterprise in Biotechnology (15 credits, level **M**)
- **Integrated** “entrepreneurship” **package** within a module
 - Placement (60 credits, level **2**)
 - **Research Strategies** (20 credits, level **3**)
 - Research Design & Statistics (15 credits, level **M**)

Assessment options

- Create a business proposition and prepare a business plan (Group work)
- Create a business proposition and a marketing research plan, and critique a business plan (Group work)
- Computer aided multiple choice test in marketing and finance, combined with case study assessment
- Others....

BSc Hons Biomed Sciences case study

No.	Workshops	Assessment
1.	Entrepreneurship training brief Finding ideas and marketing Group work (Brainstorming)	45 final year students 9 groups of 5
2.	Protecting your idea and business planning Group work (Marketing research)	“Elevator Pitch” Presentation
3.	Getting support and finance Group work (Business plan critique)	Marketing Research Brief

(Submit Business Plan **Critique** within 10 days of workshop 3)

“Elevator Pitch” Example

Femmesafe Ltd (Diagnostic kit for presence of drug e.g. Rohypnol contaminants in a drink)

Assessment checklist

- Product? 
- Who will buy?  Why? 
- Competitors  Promotion 
- Unique selling points 
- Within 60 seconds 
- Clarity  Enthusiasm 

Promotion

- Clubs (flyers)
- Websites (HE)
- Pharmacists
- Free trial packs
- Free PR (papers)

Competition

- Direct: None
- Indirect: Vigilance



**HE female
clubbers**

Marketing Research Brief (example given)

- **Introduction**
 - The product and marketing environment
- **Aims and objectives**
- **Methodology**
 - How do you propose to carry out the market research
- **Resources**
 - What do you require to carry out proposed research
- **Timescale** (e.g. Gantt Chart)
 - Key activities from start to end on a timeline

Business Plan Critique (guidelines given)

- Coverage, balance and format: **Appropriateness?**
- Business set-up steps proposed: **Appropriateness?**
- Presented plan: **How convincing? Strengths? Improvement?**
- Recognition of **future trends** in the subject area
- Ability to **protect** the idea
- Effective use of available **organisational support**
- Start up **funds** look realistic

Student views

Positive

- A **different perspective** on their subject which could be useful in the future
- Realising they can be **creative**
- Valued working **with others** and work load shared fairly
- Belief that learning outcomes were **achieved**

Negative

- Business plan **critique difficult** with limited knowledge
- **Individual accountability** for sections of critique

Staff views

Positive

- Integrated well within a Research Strategy module
- Important success factors:
 - A **motivated** final year class
 - Placed in the **context** of students' subject area
 - Clear assessment guidelines and **marking criteria**
 - **In class** group work

Negative

- Assessment constrained by **limited resources**
- Not all students contributed fair share to **group work**

Dissemination

- **Roll out in 03/04:**
 - PgDip Human Nutrition (F/T, P/T)
 - Pg Dip Biomedical Sciences (F/T, P/T and distance)
 - BSc Hons Sports Studies (F/T)
- **Pilot computer Aided assessment with Case Study approach in BSc Hons Podiatry in 03/04**

Key points

- UU's Policy on Entrepreneurship is about **attitudes** and **skills** needed by **graduates** today
- Delivery and assessment strategies are constrained by **resource limitations**
- Delivery should be **participative**, and **team** oriented
- Motivated final year Biomedical Science students responded well to group **learning outcome assessment**:
 - Presentation + Brief + Critique
- **Others** adopting this approach but also **piloting** another

Question and Answer Session

