A Postgraduate course in professional ethics for bioscience students

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Presentation Summary

- Description of the course we run.

- Student reaction to it.

- Your chance to try out our scenarios.

- Our short course (4 hours) for bioscience postgraduates (Masters; Year 1 PhD) has run since 2006.

- Compulsory course as part of generic skills programme.

- Intention is to have a follow-up for year 2 PhDs – but hasn't happened yet.

- Evaluation of course by means of before and after questionnaires.

- No formal assessment – though we have trialled 'Learning Logs' on a voluntary basis.

Course Structure

- Plenary Lecture.

- Small group scenario-based discussions: four topics, students in groups of up to 6: each group prepares a short presentation on their scenario to give to their section (numbers are such that we often have 3-4 parallel sections, each with a staff facilitator).

- Refreshment break.

- Second set of scenario-based discussions: same format.

Plenary Lecture

- This aims to show why a short course in research ethics is regarded as important to scientists beginning their careers.

- Some students will have studied ethics as part of their undergraduate programmes – others not.

- So the lecture is a canter through some ethical ideas, but with its main focus on ethical issues in research.

Contents

1. Ethical decision-making: deontology and utilitarianism. Ethical sensitivity.

2. Ethics and science: research fields where individuals may have moral misgivings; legal limitations on research areas.

3. Professional ethics in science: comparison with other professions.
   Key issues: plagiarism, fabrication, falsification.

4. Good practice issues: safety, legal compliance, ethical approval, transparency, workplace ethics

5. Why we provide such a course…

6. A historical example: Darwin and Wallace – did Darwin do the right thing?

Scenarios

A.   1.   Order of authorship.
      2.   Double or redundant publishing.
      3.   Did I contribute to this?
      4.   Challenging a previous paper.

B.   5.   Costs and benefits of an enforceable Code of Professional Practice in Science
      6.   Freedom of speech and professionalism.
      7.   Dubious sources of funding.
      8.   Intellectual property and commercialisation.

- Scenarios 1-4 are on the kind of issues that can come up in a research group.

- Scenarios 5-8 are bigger issues of principle generally.

- You will have a chance to try some of them out.

Students' responses to the course

1. We asked what exposure to ethics and philosophy students had before the course.

	None	% Response Some	(n = 200) Definite Yes
Philosophy	70	1	29
Ethics	69	1	30

2. We also asked about their familiarity prior to the course to two ethical ideas.

	% Response	(n = 170)	
	Not	Neutral	Familiar
Deontology	57	23	20
Utilitarianism	42	25	33

So, the level of familiarity with formal ethical thinking in these postgraduate students was low.

3. We asked about the relevance of and need for an ethics courses in science.
% students responses (n = 218; possible to answer >1)

Relevant	Irrelevant	Necessary	Waste of time
51	5	67	0

4. We asked students' reactions to the course we provided, by asking them to agree-disagree (on a 5 point scale consolidated into 3 categories) with a set of statements.

	Statements	Agree	N	Disagree
		% Responses, n = 200		
a)	I found this session largely a waste of time because I have already thought about the issues	17	25	58
b)	This session was generally irrelevant to me because the issues were too far removed from what I do	18	17	65
c)	Compared to other generic courses I've attended, this was interesting and enjoyable	44	27	29
d)	I enjoyed being able to discuss my views with staff and colleagues	47	23	30

5.   We asked in particular about the scenarios used to generate discussion (5 point scale again).

| | % responses, | | n = 160 |
Rating	Disagree	N	Agree
Helpful	11	27	62
Relevant	3	16	81
Interesting	7	24	69
Boring	68	17	15

• One of the scenarios concerned the need for a professional ethics code in science. Again, assessed using a 5 point scale.

| | % student | | responses, n = 200 |
Statement	Agree	N	Disagree
a) There is a need for a code	36	21	43
b) One code is feasible for all scientific disciplines	38	28	34
c) A code would not need to be tailored for each discipline	47	20	33
d) Personal ethics are sufficient	30	23	47
e) Public opinion with arbitrate: no need for a code	31	16	53

7. Mindful that our course is short and only an introduction, we asked students to rate possible follow-up topics. They could tick as many as they wished.

	Topic	% choosing (n = 190)
a)	Writing a research proposal	87
b)	Copyright	79
c)	Data protection	74
d)	Intellectual property	52
e)	Genetic modification of organisms	74
f)	Animal experimentation	73
g)	Stem cells	71

Any Questions?

Next, we try the scenarios.