

COURSE REPORT

Code: FARM295 (= PHANV3B1 and PHANV3C1)	Term:	Responsible dept.:
Title: Pharmaceutical formulation and Pharmaceutical technology	Autumn 2012	UEA, Norwich
Responsible person: Prof. David Wright	Approved by: PU Farmasi (UiB)	
Date: 2.8.2013		
INTRODUCTION:		
<ul style="list-style-type: none"> • Follow-up from earlier evaluations: Evaluations from the last two years have been handled by employees from the UEA. Procedure has been and is still an electronic, anonymous evaluation by end of term. Feedback has been given to module leaders who responded accordingly. Normally the Bergen students have left the UEA before results of evaluations are available, so no meetings have been held earlier. • Learning outcome: 		
Pharmaceutical formulation:		
On completion of the unit the student will be able to:		
<ul style="list-style-type: none"> • describe the main routes of drug administration to a patient • describe the mechanisms of oral absorption of drugs • describe the physico-chemical principles behind the rational formulation of liquid and semi-solid dosage forms • interpret formulation and analytical data associated with a view to selecting the most appropriate formulation • explain the therapeutic use of liquid and semi-solid dosage forms • discuss appropriate small scale manufacturing techniques, including quality control and documentation, for liquid and semi-solid dosage forms • relate the principles of liquid and semi-solid preparations to a pharmacy practice context • successfully prepare formulations from recognised reference sources to a quality which is appropriate for patient administration • discuss the considerations pertinent to manufacture of medicines in practice 		
Pharmaceutical technology:		
<ul style="list-style-type: none"> • describe the physico-chemical principles underpinning solid oral dosage form design • describe the manufacturing processes used to produce different types of solid oral dosage forms on a large and small scale • interpret a drug's physico-chemical data and predict optimum solid oral dosage formulation strategies for that drug • describe the physico-chemical principles underpinning aerosol dosage form design • explain the concepts and importance of product performance testing, including being able to interpret such data • describe pharmaceutical packaging requirements and materials used • discuss the importance and requirements of pharmaceutical product stability testing, including being able to interpret stability data • discuss the fundamentals of radiopharmacy, including its clinical use • discuss the principles of solid oral dosage forms in the context of practice • discuss the principles of aerosol formulation in the context of practice • explain the role of radiopharmacy 		
STATISTICS:		
Students registered for exam: 23	Students turned up for exam: 23	

Grades ->:	A:	B:	C:	D:	E:	F:
Or ->:	Pass: 22			Fail:1		

SUMMARY OF STUDENT EVALUATIONS (MAIN POINTS):

- Method: electronic, anonymous evaluation and meeting between module leaders, students, representative from UiB, head of School.
- Students' feedback: 9 resp. 11 of 22 students did the electronic evaluation on background knowledge, assessment, organisation & management, attendance & engagement, laboratory work and overall satisfaction of the courses Formulation resp. Technology. Marks between 1 (not good) and 5 (very good) and comments were given. Each lecturer was also evaluated for knowledge, enthusiasm, response to student needs, organisation and quality of additional material

Pharmaceutical formulation:

One out of 9 students was disappointed with the unit while the others gave it rating 4 or 5: they understood the aims and learning objectives, found that the module met with expectations and that they had the necessary background knowledge. Assessment methods were clear and they got prompt and useful feedback. They attended almost all teaching activities and found lab-manuals clear and precise. The overall mean rate was 4.11 (median 4). The work load was as expected for a 10 point (UiB) module.

One student commented on the time table, which was difficult to understand and not updated according to changes. This was also discussed at the meeting between faculty and student representatives.

Two lecturers taught this subject. One was described as enthusiastic while the other was difficult to understand (not a native English speaker). The lab course was very good.

It would be an advantage if the exam in formulation was earlier than this year to spread the work load.

Pharmaceutical technology: Students were overall satisfied with this unit, but not so satisfied with the time it took before they got feedback and the quality of the feedback they got. The lab course was very good. The overall mean rate was 4.27 (median 4). The work load was as expected for a 10 point (UiB) module. 4 of 6 lecturers got very good evaluation and a lot of positive comments. One was difficult to understand (not a native English speaker).

- Comments from lecturer(s):

The meeting accepted that one teacher in formulation was hard to understand. It was pointed out that the lab worked much better for the Norwegian students than for the British. Staff will work on quality assurance of the time table for the next group. Lectures in technology were also attended by year 2 UEA students, described as immature/annoying.

MODULE ORGANISER'S EVALUATION:

- Teaching and assessment methods: lectures, workshop, lab
- Literature: «Aulton» is still the most appropriate reading source and will be provided for the final cohorts
- Exam results: Only one student failed this module.
- Rooms and equipment: Appropriate for need
- Placement: Radiopharmacy at Addenbrookes. The placement was appropriate but would benefit from being more closely aligned with the related lectures
- Changes during the course: No change to content, just to organisation

AIMS FOR NEXT EVALUATION PERIOD – POSSIBLE IMPROVEMENTS:

Time table will be improved.

Radiopharmaceuticals will be taught closer to the visit to Addenbrookes.

FARM204 will not be given the last two weeks of term again. One week in September and one in December will probably be better to avoid collisions with exams and other compulsory work.