

CONFERENCE ON
Enhancing Student Learning Experience

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Addressing student needs: A case of redesigning teaching strategy in one module of nursing curriculum

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Exemplar Module

Bachelor of Health Science (Honours)
Major in Nursing and Applied Gerontology



Background Information

- Bachelor of Health Science (Honours) Nursing
- Accredited
- Nursing Council and HKCAAVQ
- Registered Nurse on graduation
- Non-JUPAS students
- DSE ; AL
- Science and non-Science background

Programme structure of 2012/13 cohort

Accommodate packed curriculum

Health Assessment	
Anatomy and Physiology	
Essential Concepts of Chinese Medicine (中醫基礎概念)	
Microbiology	Advanced Pathophysiology
Public Health	Primary Care and Community Nursing
Pathophysiology	Women's and Men's Health
Drugs and Herbal Medicine	Psychosocial Dimensions of Health and Illness
Research Methods in Health Care	
Ethics and Legal Issues in Health Care	
Economics and Management in Health Care	
Capstone Project (6 credits)	

Reference guide to the syllabus of subjects and requirements for the preparation of **Registered Nurse (General)** in the HKSAR (June 2016)

Overview of Contact Hours¹ (Including Laboratory Hours)

Competence Area 1: Professional, legal and Ethical Nursing Practice		
Item	Topics	Minimum Hours
1A.	General, Behavioural and Life Sciences Relevant to Nursing	320
<i>1A.1</i>	<i>Human Anatomy, Physiology and pathophysiology</i>	
<i>1A.2.</i>	<i>Sociology of Health</i>	
<i>1A.3.</i>	<i>Applied Psychology</i>	
<i>1A.4.</i>	<i>Fundamental Pharmacology</i>	
<i>1A.5.</i>	<i>Microbiology</i>	
<i>1A.6.</i>	<i>Nutrition and Dietetics</i>	

Class contact: student effort in 1:2 ratio

Specific Learning and Teaching Methodologies in BHSc(Hons)

6.10 The BHSc(Hons) adopts a teaching style appropriate for tertiary education. Lectures, practicums, seminars, tutorials, role-play, problem-based learning and laboratory sessions will be scheduled whenever appropriate (on-line learning will be developed in future). Students will learn theoretical knowledge by analysing hypothetical and/or actual health problems. They will work on the various health problems and issues in tutorial groups.

Student Effort

6.11 For every class/laboratory contact hours, students are expected to put in 2 hours of student effort. As such, in a 3-credit course with 45 contact hours, i.e. 14 lecture hours, 28 seminar hours and 3 examination hours, the estimated student effort is 84 hours.

Class contact: student effort in 1:2 ratio

Student Study Effort Required	Class contact:	
	• Lecture	14 Hrs
	• Tutorial/ Laboratory	14 Hrs
	• Seminar/problem-based learning	17 Hrs
	Other student study effort:	
	• Self-reading	30 Hrs
	• Preparation for seminar/problem-based learning	30 Hrs
	• Preparation for Mid-Term Test and Written Test	30 Hrs
	Total student study effort	135 Hrs

Module of related topics

- Integrate health related issues on human biology
- Body system approach
- Discussions on each body system
 - Systemic anatomy and physiology
 - Alternation of health
 - Health assessments
 - Infectious diseases

Aims of the integrative design

1. Anatomy and Physiology -- Health Assessment
2. Microbiology and Pharmacology
3. Care of Children and Adolescents



Modular approach

- Time saving
- Better understanding of health alternation
- Better correlation to clinical practice



1. Introductory lectures
2. Integrative cases
3. Self studies and preparation

Delivery mode

Case studies for each body system

- Introduction of body system
- Case discussion
- Microorganisms involved in the infectious diseases
- Disease transmission and prevention

Time table design

Week (date)	Lectures (L) 4:30 – 6:30Pm, LT1	Seminar (S)*	Laboratories*	
			Healthcare lab	Life Science lab
1 (3 Sep)	Course overview Foundations of Health Assessment			
2 (10 Sep)	Skin, hair and nail Musculoskeletal system	Health history and general survey		
3 (17 Sep)	Head and Neck Special senses	Physical examination technique		Computer lab
4 (24 Sep)	Thorax and lung	Thorax and lung Cardiovascular and peripheral	Vital signs Physical examination technique	Respiratory, CVS and Blood Typing

Delivery methods

- According to body systems
- Each body system given an exemplar scenario
- No handouts or notes provided
- References and literature suggested
- Students explore cases and submit before attending class
- Discussion of cases and basic anatomy and physiology after assignment submission

EXAMPLE OF CASES

Case study: Urinary System

Students are required to:

- Demonstrate your understanding of the gross anatomy of the urinary system;
- Explain the physiology of the urinary system including the basic absorption and excretion mechanisms;
- Explain briefly the causes and pathophysiology of common urinary disorders;
- State some common diagnostic tests for children with urinary disorders;
- Outline some common treatment methods used for children with urinary disorders;
- Assess children with urinary disorders;
- Identify problems experienced by children with urinary disorders;
- Outline the goals and their associated nursing interventions for children with urinary disorders;
- Explain the rationale behind each intervention outlined above; and
- State the criteria for evaluating the effectiveness of the above interventions.

Case Scenario: A child with fever and abdominal pain

Mimi is 9 years old. Together with her parents and her older brother, they live in a rural community where water and sewage facilities are poor. People in the community often have to get water from the river nearby as the water supply stops without any prior warning. One day, her mother took her to the clinic as she had urination urgency i.e. always feels the need to pass urine, and loin pain for a few days. Based on the data collected through interviewing and physical examination (see below), the doctor told Mimi's mother that Mimi has a urinary tract infection.

Past health history

- Mimi is fully immunized and has been in good health. She is not taking any regular medication.

Current health condition

- She had fever and urinary urgency for a few days.

Physical examination

- Temperature: 38.7°C
- Pulse: Regular, 120/min
- Respiration: 22 breaths per min
- Blood pressure: 85/60mmHg

Urine test

- Results: White blood cells +++
- Leucocytes +++

Exercise

- Using a concept map, outline your understanding of Mimi's condition. The map must reflect the findings of the general health assessment and focused assessment with a brief account on the possible reasons why Mimi has these signs and symptoms. (50% of the total score)
- Assuming that you will take care of Mimi, formulate a care plan to guide your work. The plan must contain:
 - The problem statements based on the Activities of Living model (10%)
 - The goals in relation to the problems identified (10%)
 - The actions required with rationale why they are chosen and how they work (10%)
 - The evaluation criteria based on which you will decide whether the actions are effective (10%)

Grading Criteria

- The last 10% of the total score is allocated for the overall presentation of your exercise. Please check your expression, grammar and style. Additional credits will be given to you for high quality work. Last but not the least, check your submission using Turnitin. A similarity index of more than 30% will not be acceptable in academic work (excluding references).

Student examination performance

Grade	AP (n)(2012)	AP (%) (2012)	MP (n)(2012)	MP (%) (2012)
A+	0	0	0	0
A	7	4.9	2	1.38
A-	0	0	0	0
B+	16	11.19	8	5.52
B	12	8.39	17	11.72
B-	0	0	0	0
C+	17	11.89	30	20.69
C	26	18.18	34	23.45
C-	0	0	0	0
D+	25	17.48	33	22.76
D	3	2.1	2	1.38
F	37	25.87	19	13.10
	143		145	

Adequate in skill-based courses

COLUMN DETAILS

Column Health Assessment Report (Assignment)

Points Possible 50

Description

STATISTICS

Count	223
Minimum Value	0
Maximum Value	45.00
Range	45.00
Average	32.22
Median	32.60
Standard Deviation	6.99
Variance	48.84

STATUS DISTRIBUTION

Null	12
In Progress	2
Needs Grading	8
Exempt	0

GRADE DISTRIBUTION

A+	7
A	18
B+	33
B	51
C+	42
C	21
D+	34
D	3
F	14

Students' view

- Photos related to the diseases can be shown to arouse students' interest
- The teacher always thinks that we understand what she said and suppose us know a lots.
- It is too difficult for students to understand all the material in 1 lecture
- Don't suppose all the things that the students learnt before lecture
- Don't suppose the students have enough time to read though all the chapters needed, we are not only study your
- Subject in 1 semester!
- Don't suppose all students are studying the same subjects in 1 semester
- Workload is too high, student cannot put all the time in your subject
- Be more aware of students needs if necessary
- Schedule can be rearranged to achieve a better learning outcome instead of paying lots of time for self study

2013/14 cohort

Reversion to traditional
classroom deliveries for
individual

Programme structure of Updated Jan 2014

Year 1 Semester 1 (15 weeks including exam)	GEN1001 Developing English Language Skills (GE)	45 (3)	Nil	Generic Studies
	GEN1403 Introduction to Health Informatics (GE)^	45 (3)	Nil	Generic Studies
	NUR1019 Anatomy and Physiology	45 (3)	Nil	Common Core
	GE elective 1	45 (3)	Nil	Generic Studies
	NUR1020 Essential Concepts of Chinese Medicine	45 (3)	Nil	Common Core
	NUR2028 Psychosocial Dimensions of Health and Illness	45 (3)	Nil	Discipline Studies
	Total	270 (18)		
Year 1 Semester 2	GEN1002 Applied Chinese Language (GE)	45 (3)	Nil	Generic Studies
	GEN1206 Communication (GE)^	45 (3)	Nil	Generic Studies
	NUR1022 Public Health	45 (3)	Nil	Common Core
	NUR1018 Health Assessment	45 (3)	Nil	Common Core
	NUR1021 Microbiology	25 (1.5)	Nil	Common Core
	NUR2018 Pathophysiology	45 (3)	Nil	Common Core
	NUR2019 Drugs and Herbal Medicine	20 (1.5)	Nil	Common Core
	Total	270 (18)		
Year 2 Semester	GEN2006 Enhancing Academic English Skills (GE)	45 (3)	Nil	Generic Studies
	NUR2025 Advanced Pathophysiology	45 (3)	NUR2018	Discipline Studies

Student examination performance

Grade	AP (n)(2013)	AP (%) (2013)	MP (n)(2013)	MP (%) (2013)
A+	4	4.04	0	0
A	6	6.06	2	2.78
A-	0	0	0	0
B+	14	14.14	12	16.67
B	20	20.2	18	25
B-	0	0	0	0
C+	16	16.16	19	26.39
C	22	22.22	14	19.44
C-	0	0	0	0
D+	8	8.08	2	2.78
D	1	1.01	0	0
F	8	8.08	5	6.94
	99		72	

REFLECTION

PEOPLE'S HISTORY OF THE NHS

ENCYCLOPAEDIA

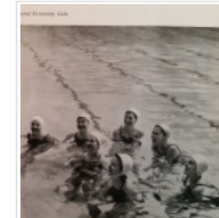
HOME

MUSEUM

GALLERY: NURSING SCHOOLS IN THE 1960s

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NURSING SCHOOLS IN THE 1960s



In the mid-1960s, the daughter of two GPs in the Wirral was looking into becoming a nurse. She wrote to the nursing schools she was most interested in, one nearby in Liverpool but mostly in London, and asked them for details of their courses. She kept the prospectuses they sent her and now - half a century later - she has kindly shared them with us.

They outline three and four-year courses of study, where the syllabus was heavy on anatomy, physiology and practical nursing demonstrations. The scientific and technical side of nursing was emphasised by some, but all said applicants needed to be more than well-educated. The Guy's prospectus said candidates must be at least 5'2" tall and produce "satisfactory evidence of good moral

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1A.6.	<i>Nutrition and Dietetics</i>	

2 courses

3 Courses

40/
topic

Reduced curriculum in science studies

- Changed curricula emphasis
- Reduced anatomical courses
- Increased emphasis in other areas of the biology curriculum in undergraduate courses
- Lacking anatomy prerequisites for admission
- Suggested integrative anatomy for undergraduates

Darda (2010)

Darda DM (2010). Observations by a university anatomy teacher and a suggestion for curricular change: integrative anatomy for undergraduates. *Anatomical Sciences Education*, vol 3 (2) pp 73-6.

Tertiary education

- Evident that secondary schooling in general, does not prepare students adequately for **tertiary education**.
- Requires **self-directed study** inter alia, the ability to find information, synthesis and consequent application and integration of the information in practice.
- Requires a multidimensional approach to the student in totality.
- Requires the meticulous involvement of the student in her/his own learning.
- Assumes that students possess certain essential skills relevant to learning and studying.

Fischer, Boshoff & Ehlers (2001)

Ref: Fischer, M., Boshoff, E. L. D., & Ehlers, V. J. (2001). Student nurses' needs for developing basic study skills. *Curationis*, 24(1), 66-73.

Case study approach

- (a) recognizing the particulars of a clinical situation,
- (b) making sense of patient data and informing decisions,
and
- (c) reflection.

In-depth analysis of these practices helped unravel four professional attributes that form the tenets of case-based learning.

Kantar & Massouh (2015)

Ref: Kantar L.D., & Massouh A (2015). Case-based learning: What traditional curricula fail to teach. *Nurse Education Today*, Vol 35 (8), pp e8-e14.

Case study method & problem-based learning

- Integrative, active and student-centered curricular methods are encouraged
- Foster student ability to use clinical judgment for problem solving and informed clinical decision making.
- Potentiate student development of a transferable problem solving skill set
- Better prepare students for practice in future novel clinical experiences, which is a mutual goal for both educators and students.

McMahon and Christopher (2011)

McMahon M.A., and Christopher K.A. (2011). Case study method and problem-based learning: utilizing the pedagogical model of progressive complexity in nursing education. *International Journal of Nursing Education Scholarship*. Vol 8 (1) 22

Anatomy and Physiology 'concrete' activities in laboratories and tutorials.

- Typically students perform poorly in these 'threshold courses', despite multiple interventions to support student engagement. Investigation of the shortcomings in these courses, based on feedback from students indicated several key areas of difficulty in the course, especially focused around a relative lack of hands-on 'concrete' activities in laboratories and tutorials.

Ref: Johnston AN et al. (2015) Student learning styles in **anatomy** and **physiology** courses: Meeting the needs of **nursing** students. *Nurse Education In Practice [Nurse Educ Pract]* 2015 Nov; Vol. 15 (6), pp. 415-20.

Conclusion

- Innovation in the education requires long term planning and adjustment.
- Local students need time to adapt.
- Integration can be delivered in a micro scale within a class with introduction of multi-disciplinary knowledge.
- Students need time to adapt to a bigger revolutionary change, especially when knowledge demand of the course is intense.

THANKS
&
QUESTIONS