LKS Faculty of Medicine
School of Nursing
香港大學護理學院

THE UNIVERSITY OF HONG KONG

LKS FACULTY OF MEDICINE

SCHOOL OF NURSING

Bachelor of Nursing (Full-time) Programme

Year 1 (Class 2027)

BMSN1601 – Foundation of Life Sciences

COURSE MANUAL

September 2022

Bachelor of Nursing (Full-time) Programme

Learning Outcomes

The graduates of the Bachelor of Nursing (Full-time) Programme will be able to:

1. Function competently and independently in the role of the nurse;
2. Promote health to clients and assist with the restoration and maintenance of optimal health;
3. Demonstrate an understanding of the cultural competence and leadership characteristic within nursing profession;
4. Perform evidence-based nursing practice;
5. Use ethical principles and legal parameters in nursing practice; and
6. Assume responsibility for self-evaluation, professional and academic development.

1. TEACHING TEAM

Course Coordinator: Dr. CW Ma
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Teaching Team:

From School of Biomedical Sciences (SBMS) –

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From Department of Microbiology (DM) –

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Tutors:

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Students are advised to contact individual teachers if they have any questions or encounter difficulties during revision.

2. COURSE DESCRIPTION

This course serves as the foundation course for the subsequent life science course in year II and year III. A series of lectures on basic biochemistry and physical principles that are applicable to Life Science is included as to provide sufficient science background for students to understand life Science subjects. The course also examines the concepts related to the structure and function of the human body, including discussions of the organization of the body from the single cell to the coordinated whole. A major theme is the interaction of all body systems for the maintenance of a stable internal state, a condition known as homeostasis. The focus throughout the course will be interrelation of structure and function in cells, tissues and systems (integumentary, cardiovascular, respiratory, digestive, urinary, musculoskeletal, nervous and reproductive systems). The course serves as a basis for understanding the normal processes of life.

3. STUDENT LEARNING OUTCOMES

On completion of the course, students will be able to:

		This learning outcome meets with Programme outcome
1)	Apply basic biochemistry and physical principles in the interpretation of life science phenomena.	No. 1, 2, 4, 6
2)	Describe the anatomical and functional organization of the body from the single cell to the coordinated whole**.**	No. 1, 2, 4, 6
3)	Describe the concept of homeostasis.	No. 1, 2, 4, 6
4)	Describe the interrelation of structure and function in cells, tissues, and systems (integumentary, haematologic, cardiovascular, respiratory, digestive, urinary, musculoskeletal, nervous, endocrine and reproductive systems).	No. 1, 2, 4, 6

4. TIME TABLE

Ref No#	Date	Day	Time	Venue *	Topic	Lecturer
I	2022-09-06	Tue	1330-1420	**3SR-LT1**	Introduction of Life Sciences Programme & Life Sciences Assessment	Ma-CW Yang-J
L1	2022-09-06	Tue	1430-1520	**3SR-LT1**	Some basic chemistry: elements and compounds	Ho-J
L2	2022-09-06	Tue	1530-1620	**3SR-LT1**	Chemical reactions	Ho-J
L3	2022-09-07	Wed	0830-0920	**3SR-LT2**	Water: its structure and life supporting properties	Ho-J
L4	2022-09-07	Wed	0930-1020	**3SR-LT2**	The building blocks of life	Ho-J
L5	2022-09-08	Thu	1030-1120	**3SR-LT1**	Energy and metabolism	Ho-J
R1	2022-09-08	Thu	1130-1220	**3SR-LT1**	Review session (Biochemistry)	Ho-J
L6	2022-09-13	Tue	1430-1520	**3SR-LT1**	Physics applicable to circulatory system	Ma-CW
L7	2022-09-13	Tue	1530-1620	**3SR-LT1**	Physics applicable to respiratory system	Ma-CW
T1	2022-09-14	Wed	0830-1020	**Zoom**	T1 – Group I	Cheung-D
					T1 – Group II	Fung-J
					T1 – Group III	Lam-H
					T1 – Group IV	Yang-C
					T1 – Group V	Yeung-M
L8	2022-09-15	Thu	1030-1120	**3SR-LT1**	Concept of homeostasis of the body	Chan-E
L9	2022-09-15	Thu	1130-1220	**3SR-LT1**	Introduction to cell	Cheung-L
L10	2022-09-20	Tue	1330-1420	**3SR-LT2**	Introduction to cell physiology (Transmembrane transport of molecules)	Ma-CW
L11	2022-09-20	Tue	1430-1520	**3SR-LT2**	Structural organization of body	Cheung-L
L12	2022-09-21	Wed	0830-0920	**3SR-LT2**	Heart, vessels and lymphatic system	Liu-R
L13	2022-09-21	Wed	0930-1020	**3SR-LT2**	Fluid & blood	Hung-P
L14	2022-09-22	Thu	1030-1120	**3SR-LT1**	Introduction to the circulatory system	Hung-P
L15	2022-09-22	Thu	1130-1220	**3SR-LT1**	Introduction to the respiratory system	Liu-R
L16	2022-09-23	Fri	1330-1420	**3SR-LT1**	Introduction to the mechanism of breathing & ventilation	Ma-CW
L17	2022-09-23	Fri	1430-1520	**3SR-LT1**	Gas exchange & transport	Ma-CW
CA1	*2022-09-23 – 2022-09-25*	*Fri - Sun*	*1700 - 2359*	*Moodle*	*Continuous Assessment on L1 – L12*	*Ma-CW*
L18	2022-09-27	Tue	1330-1420	**3SR-LT1**	Introduction to the endocrine system	Chu-JYS
L19	2022-09-27	Tue	1430-1520	**3SR-LT1**	Thermoregulation	Chan-E
L20	2022-09-29	Thu	1030-1120	**3SR-LT1**	Anatomy of abdomen	Huen-M
L21	2022-09-29	Thu	1130-1220	**3SR-LT1**	Digestive system	Huen-M
L22	2022-09-30	Fri	1330-1420	**3SR-LT1**	Functions of GI organs	Ma-CW
R2	2022-09-30	Fri	1430-1520	**3SR-LT1**	Review session (Physiology)	Ma-CW
T2	2022-10-05	Wed	0830-1030	**Zoom**	T2 – Group I	Cheung-D
					T2 – Group II	Fung-J
					T2 – Group III	Lam-H
					T2 – Group IV	Yang-C
					T2 – Group V	Yeung-M
L23	2022-10-06	Thu	1030-1120	**3SR-LT1**	Anatomy of urinary system	Fonseca-G
L24	2022-10-06	Thu	1130-1220	**3SR-LT1**	Anatomy of male reproductive system	Fonseca-G
L25	2022-10-07	Fri	1330-1420	**3SR-LT1**	Anatomy of female reproductive system	Fonseca-G
L26	2022-10-07	Fri	1430-1520	**3SR-LT1**	Introduction to basic renal processes	Ma-CW
CA2	*2022-10-07 – 2022-10-09*	*Fri - Sun*	*1700 - 2359*	*Moodle*	*Continuous Assessment on L13 – L23*	*Ma-CW*

P1 A	2022-10-18	Tue	1330-1520	DL	The trunk demonstration **(Group A)** (2 hr)	Yang-J Cheung-A Cecot-TS Fonseca-G Liu-R
P1 A	2022-10-18	Tue	1530-1720	DL	The trunk demonstration **(Group B)** (2 hr)	Yang-J Cheung-A Cecot-TS Fonseca-G Liu-R
T3(a)	2022-10-19	Wed	0830-1020	**Zoom**	T3 – Group III	Lam-H
T3(b)	2022-10-20	Thu	1030-1220	**Zoom**	T3 – Group I	Cheung-D
					T3 – Group II	Fung-J
					T3 – Group IV	Yang-C
					T3 – Group V	Yeung-M
L27	2022-10-21	Fri	1330-1420	**3SR-LT1**	Introduction to reproductive physiology	Lee-CKF
L28	2022-10-21	Fri	1430-1520	**3SR-LT1**	Excitable tissues	Ma-CW
Test	2022-10-22	Sat	1400-1600	**LT3 + LT4**	**Test 1 (Group A)** [1430-1530]	Ma-CW
Test	2022-10-22	Sat	1400-1600	**MDL1,2,3**	**Test 1 (Group B)** [1430-1530]	Yang-J
L29	2022-10-25	Tue	1430-1520	**LT3 + LT4**	Introduction to nervous system	Chang-R
L30	2022-10-25	Tue	1530-1620	**LT3 + LT4**	Brain functions	Ma-CW
L31	2022-11-01	Tue	1530-1620	**LT3 + LT4**	Autonomic nervous system	Ma-CW
L32	2022-11-02	Wed	0830-0920	**3SR-LT2**	Anatomy of integumentary system	Cecot-TS
L33	2022-11-03	Thu	1030-1120	**3SR-LT1**	Introduction to musculoskeletal system	Cheung-L
L34	2022-11-03	Thu	1130-1220	**3SR-LT1**	Introduction to bone & muscle physiology	Ma-CW
L35	2022-11-08	Tue	1330-1420	**LT1 + LT2**	Surface anatomy	Yang-J
D1a	2022-11-08	Tue	1430-1455	**LT1 + LT2**	Debriefing of Test 1	Yang-J
D1b	2022-11-08	Tue	1455-1520	**LT1 + LT2**	Debriefing of Test 1	Ma-CW Ho-J
R3	2022-11-10	Thu	1030-1220	**LT1 + LT2**	Review session (Anatomy)	Cecot-TS
L36	2022-11-11	Fri	1330-1420	**LT3 + LT4**	Growth & development/ life cycle	Ma-CW
L37	2022-11-11	Fri	1430-1520	**LT3 + LT4**	Introduction to microbes & infectious disease	Chan-MCW
CA3	*2022-11-11 – 2022-11-13*	*Fri - Sun*	*1700 - 2359*	*Moodle*	*Continuous Assessment on L24 – L35 including P1A*	*Ma-CW*
T4	2022-11-16	Wed	0830-1020	**Zoom**	T4 – Group I	Cheung-D
					T4 – Group II	Fung-J
					T4 – Group III	Lam-H
					T4 – Group IV	Yang-C
					T4 – Group V	Yeung-M
R4 & E	2022-11-18	Fri	1330-1520	**3SR-LT1**	Review session (Physiology) & Course evaluation	Ma-CW
Test	2022-11-26	Sat	1400-1600	**LT1**	**Test 2 (Group A)** [1430-1530]	Ma-CW
Test	2022-11-26	Sat	1400-1600	**MDL1,2,3**	**Test 2 (Group B)** [1430-1530]	Yang-J
D2a	2022-11-30	Wed	0830-0920	**3SR-LT1**	Debriefing of Test 2	Ma-CW
D2b	2022-11-30	Wed	0930-1020	**3SR-LT1**	Debriefing of Test 2	Yang-J

**** The arrangement of Zoom Tutorials will be available in course Moodle.***

The schedule and arrangement of teaching sessions may be revised later. If there are any changes later, a revised version of this file will be uploaded to Moodle.

Venues:

LT1	**Lecture Theatre 1, G/F, William M W Mong Block, 21 Sassoon Road**
LT2	**Lecture Theatre 2, G/F, William M W Mong Block, 21 Sassoon Road**
LT3	**Lecture Theatre 3, G/F, William M W Mong Block, 21 Sassoon Road**
LT4	**Lecture Theatre 4, G/F, William M W Mong Block, 21 Sassoon Road**
3SR-LT1	**Lecture Theatre 1, 1/F, HKUMed Academic Building, 3 Sassoon Road**
3SR-LT2	**Lecture Theatre 2, 1/F, HKUMed Academic Building, 3 Sassoon Road**
MDL1	**Multidisciplinary Lab 1, G/F, Room LG-09 Laboratory Block, 21 Sassoon Road**
MDL2 & 3	**Multidisciplinary Lab 2 & 3, G/F, Room LG-01 & 02, Laboratory Block, 21 Sassoon Road**
DL	**Dissecting Laboratory, Room L1-01, 1/F, Laboratory Block, 21 Sassoon Road**

5. TEACHING AND LEARNING STRATEGIES

Teaching will be in the form of lectures, laboratory sessions, tutorials and review sessions.

Note: The medium of teaching is English, and 100% of the course will be conducted in English.

6. COURSE ASSESSMENT

	Component	Weighting	Date	This assessment method meets with course **learning outcome**
a)	3 Online Assessments	10%	Please see timetable	No. 1, 2, 3, 4
b)	2 Tests	30%	Please see timetable	No. 1, 2, 3, 4
c)	Tutorials	10%	Please see timetable	No. 1, 2, 3, 4
d)	Examination (One 2-hour written paper at the end of semester I	50%	To be confirmed	No. 1, 2, 3, 4

7. GRADE DESCRIPTORS AND STANDARDS

Grade	Standard	Grade Point	Numerical Score
A+	Excellent	4.3	96 – 100
A		4.0	91 – 95
A-		3.7	86 – 90
B+	Good	3.3	81 – 85
B		3.0	76 – 80
B-		2.7	71 – 75
C+	Satisfactory	2.3	67 – 70
C		2.0	63 – 66
C-		1.7	59 – 62
D+	Pass	1.3	55 – 58
D		1.0	50 – 54
F	Fail	0	Below 50

Excellent indicates an outstanding level of achievement. The student gives evidence of logical development and synthesis of information as well as critical thinking ability.

Good indicates an above average achievement. The student is able to discuss the topic with supportive viewpoints and his/her work shows some independent thought and/or critical analysis.

Satisfactory indicates an acceptable level of achievement. The student gives evidence of satisfactory knowledge of the topic and has minimal errors in understanding. A limited degree of logical and critical thought is evident in his/her work.

Pass indicates the student's performance has just reached as the acceptable level of achievement.

Fail indicates failure to achieve the required standard.

8. RECOMMENDED READING LIST

Required Textbooks:

i. Eric P. Widmaier, Hershel Raff, Kevin T. Strang (2022) Vander's Human Physiology: the mechanisms of body function, 16th edition, McGraw-Hill.
ii. Kenneth S. Saladin (2019) Human Anatomy, 6th edition, McGraw-Hill.
iii. Additional reading materials will be recommended by the teachers during the lectures.

Reference:

- Arthur C. Guyton and John E. Hall (1997) Human physiology and mechanisms of disease, 6th edition, Saunders.