

Academic Year: 2020 - 2021
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Important Message

The information provided here is for reference and may be subject to change by the course coordinator(s) or the offering department(s) concerned.

Section A: Course Information

BBMS3007 - Cancer Biology

Faculty LKS Medical Faculty

Department

Description
School of Biomedical Sciences

Course Coordinator

Name	Faculty/ Department	Email Address
Dr Stephanie Ma	School of Biomedical Sciences	stefma@hku.hk
Dr. Lydia Cheung	School of Biomedical Sciences	lydiacwt@hku.hk

Credit Value 6.00

Course Grade A+ to F

Semester Offered Second Semester

Prerequisite(s)/ Corequisite(s)/Impermissible Combination(s)

Pass in any one of the following courses: BBMS2003 Human Genetics, BBMS2007 Essential Molecular Biology, BIOL3401 Molecular Biology, BIOL3408 Genetics or equivalent courses

Approved Syllabus

Cancer has profound health impact on our society as a major killer disease. Rapid research advances have greatly improved our understanding of the disease mechanisms of cancer, which has led to better treatments, detection and prevention strategies. This course will provide a comprehensive overview of the genetic, molecular and cell biological processes involved in the initiation and progression of cancer. The key topics include: hallmarks of cancer, genetic and epigenetic events in cancer cells, concept of cancer stem cells, alterations in signalling pathways and metabolism as well as the emerging importance of tumour microenvironment in cancer cells. The development of novel cancer treatments including targeted therapy and immunotherapy, the challenges due to treatment resistance, tumour recurrence and tumour heterogeneity will also be covered. These current concepts in molecular and cellular biology of cancer will be illustrated in the context of different human tumour types, particular those with local prevalence.

Prerequisite: Pass in any one of the following courses: BBMS2003 Human Genetics, BBMS2007 Essential Molecular Biology, BBMS3002 Molecular Biology of the Cell, BIOL3401 Molecular Biology, BIOL3408 Genetics or equivalent courses

Assessment: 40% continuous assessment; 60% examination.

Course Objectives

Course Learning Outcomes

At the end of this course, student should be able to:

- 1) Understand cancer is a multistep process characterized by multiple hallmarks.
- 2) Understand cancer can be caused by genetic events and genomic instability, as well as current approaches in defining genetic loci and their applications in cancer screening/prevention.
- 3) Understand the common cellular pathways deregulated in cancer cells.
- 4) Understand clonal evolution of cancer and tumour heterogeneity, and the impact on therapeutic efficacy.
- 5) Define the major properties of cancer stem cells and describe the major concepts and current advances in this field including their impact on cancer treatment.
- 6) Understand the importance of tumour microenvironment in influencing the behaviors of cancer cells.
- 7) Understand the role of infection and cancer.
- 8) Describe the basic principles of cancer immunology and the implication in cancer therapy.
- 9) Understand various types of cancer treatment.
- 10) Understand how integration of biological knowledge and technological advances improve clinical management of cancer.
- 11) Demonstrate the ability in making biological observations, collecting scientific data and communicating biological concepts of cancer with peers.
- 12) Demonstrate the ability in critically reviewing and evaluating research literature in latest cancer research.
- 13) Apply the biological knowledge in interpreting cancer-related health issues in everyday life.

Section B: Teaching/ Learning

Course Type Lecture course

Course Learning Outcomes

Find | View All First 1 of 1 Last

Academic Plan Minor in Genetics and Genomics (4)

On completing the course, students will be able to	Alignment with Programme Learning Outcomes
1 [SN: 001] 1) Understand cancer is a multistep process characterized by multiple hallmarks.	[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences. [SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions. [SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research. [SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.

<p>[SN: 002] 2) Understand cancer can be caused by genetic events and genomic instability, as well as current approaches in defining genetic loci and their applications in cancer screening/prevention.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00005] Students should be able to make rational hypotheses about ill-defined biomedical sciences problems based on the best available data and evidence.</p> <p>[SN: 00006] Students should be able to identify potential approaches or research that will lead to the advancement in biomedical sciences.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>
<p>[SN: 003] 3) Understand the common cellular pathways deregulated in cancer cells.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>
<p>[SN: 004] 4) Understand clonal evolution of cancer and tumour heterogeneity, and the impact on therapeutic efficacy.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>
<p>[SN: 005] 5) Define the major properties of cancer stem cells and describe the major concepts and current advances in this field including their impact on cancer treatment.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00005] Students should be able to make rational hypotheses about ill-defined biomedical sciences problems based on the best available data and evidence.</p> <p>[SN: 00006] Students should be able to identify potential approaches or research that will lead to the advancement in biomedical sciences.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>
<p>[SN: 006] 6) Understand the importance of tumour microenvironment in influencing the behaviors of cancer cells.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>
<p>[SN: 007] 7) Understand the role of infection and cancer.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p>

		<p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>
	<p>[SN: 008] 8) Describe the basic principles of cancer immunology and the implication in cancer therapy.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00005] Students should be able to make rational hypotheses about ill-defined biomedical sciences problems based on the best available data and evidence.</p> <p>[SN: 00006] Students should be able to identify potential approaches or research that will lead to the advancement in biomedical sciences.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>
	<p>[SN: 009] 9) Understand various types of cancer treatment.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00005] Students should be able to make rational hypotheses about ill-defined biomedical sciences problems based on the best available data and evidence.</p> <p>[SN: 00006] Students should be able to identify potential approaches or research that will lead to the advancement in biomedical sciences.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>
10	<p>[SN: 010] 10) Understand how integration of biological knowledge and technological advances improve clinical management of cancer.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00005] Students should be able to make rational hypotheses about ill-defined biomedical sciences problems based on the best available data and evidence.</p> <p>[SN: 00006] Students should be able to identify potential approaches or research that will lead to the advancement in biomedical sciences.</p> <p>[SN: 00007] Students should be able to engage in relevant and realistic self-appraisal as biomedical scientists and realize one's own capabilities and limitations.</p> <p>[SN: 00008] Students should be able to understand broader concepts of molecular and health sciences and be able to relate these to scientific issues of cultural, regional and global significance.</p> <p>[SN: 00010] Students should be able to understand the importance of ethics and integrity of scientific research, and respect the roles and contributions of other members of the team and display capacity for team work.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p>

<p>[SN: 011] 11) Demonstrate the ability in making biological observations, collecting scientific data and communicating biological concepts of cancer with peers.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00004] Students should be able to evaluate research literature.</p> <p>[SN: 00005] Students should be able to make rational hypotheses about ill-defined biomedical sciences problems based on the best available data and evidence.</p> <p>[SN: 00006] Students should be able to identify potential approaches or research that will lead to the advancement in biomedical sciences.</p> <p>[SN: 00009] Students should be able to communicate and collaborate effectively with scientific peers and healthcare professionals orally and in writing.</p> <p>[SN: 00010] Students should be able to understand the importance of ethics and integrity of scientific research, and respect the roles and contributions of other members of the team and display capacity for team work.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p> <p>[SN: 00012] Students should be able to participate in the generation, interpretation, application and dissemination of biomedical sciences knowledge which will improve the quality of healthcare.</p>
<p>[SN: 012] 12) Demonstrate the ability in critically reviewing and evaluating research literature in latest cancer research.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00004] Students should be able to evaluate research literature.</p> <p>[SN: 00005] Students should be able to make rational hypotheses about ill-defined biomedical sciences problems based on the best available data and evidence.</p> <p>[SN: 00010] Students should be able to understand the importance of ethics and integrity of scientific research, and respect the roles and contributions of other members of the team and display capacity for team work.</p> <p>[SN: 00011] Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.</p> <p>[SN: 00012] Students should be able to participate in the generation, interpretation, application and dissemination of biomedical sciences knowledge which will improve the quality of healthcare.</p>
<p>[SN: 013] 13) Apply the biological knowledge in interpreting cancer-related health issues in everyday life.</p>	<p>[SN: 00001] Students should be able to demonstrate solid knowledge of biomedical sciences.</p> <p>[SN: 00002] Students should be able to develop scientific inquiry and critical thinking skills, including the ability to understand, analyze, and evaluate problems in order to develop solutions.</p> <p>[SN: 00003] Students should be able to apply the core knowledge and skills for the pursuit of biomedical sciences research.</p> <p>[SN: 00005] Students should be able to make rational hypotheses about ill-defined biomedical sciences problems based on the best available data and evidence.</p> <p>[SN: 00006] Students should be able to identify potential approaches or research that will lead to the advancement in biomedical sciences.</p> <p>[SN: 00007] Students should be able to engage in relevant and realistic self-appraisal as biomedical scientists and realize one's own</p>

capabilities and limitations.

[SN: 00008]

Students should be able to understand broader concepts of molecular and health sciences and be able to relate these to scientific issues of cultural, regional and global significance.

[SN: 00011]

Students should be able to appreciate the role of biomedical sciences in the improvement of human conditions.

[SN: 00012]

Students should be able to participate in the generation, interpretation, application and dissemination of biomedical sciences knowledge which will improve the quality of healthcare.

Course Teaching and Learning Activities

Description	Approx. number of hours (for normative student)	% of total study load
Laboratory practicals- contact hours	5.00	4.72
Lectures- contact hours	28.00	26.42
Tutorials- contact hours	9.00	8.49
Assessment	9.00	8.49
Reading / Self study	55.00	51.89
Total	106.00	100.00

Assessment Methods and Weighting

Assessment methods	Weighting in final course grade (%)
Examination	60.00
Presentation	10.00
Tests	30.00
Total	100.00
Coursework/Examination Ratio	40.00% / 60.00%

Assessment Methods and Assignment

Assessment Methods and Assignment	Alignment with Course Learning Outcomes
1 Examination : Final Written Examination	<p>[SN: 001] 1) Understand cancer is a multistep process characterized by multiple hallmarks.</p> <p>[SN: 002] 2) Understand cancer can be caused by genetic events and genomic instability, as well as current approaches in defining genetic loci and their applications in cancer screening/prevention.</p> <p>[SN: 003] 3) Understand the common cellular pathways deregulated in cancer cells.</p> <p>[SN: 004] 4) Understand clonal evolution of cancer and tumour heterogeneity, and the impact on therapeutic efficacy.</p> <p>[SN: 005] 5) Define the major properties of cancer stem cells and describe the major concepts and current advances in this field including their impact on cancer treatment.</p> <p>[SN: 006] 6) Understand the importance of tumour microenvironment in influencing the behaviors of cancer cells.</p> <p>[SN: 007] 7) Understand the role of infection and cancer.</p> <p>[SN: 008] 8) Describe the basic principles of cancer immunology and the implication in cancer therapy.</p> <p>[SN: 009] 9) Understand various types of cancer treatment.</p> <p>[SN: 010] 10) Understand how integration of biological knowledge and technological advances improve clinical management of cancer.</p> <p>[SN: 011] 11) Demonstrate the ability in making biological observations, collecting scientific data and communicating biological concepts of cancer with peers.</p> <p>[SN: 012] 12) Demonstrate the ability in critically reviewing and evaluating research literature in latest cancer research.</p> <p>[SN: 013] 13) Apply the biological knowledge in interpreting cancer-related health issues in everyday life.</p>
2 Presentation : Oral Presentation	<p>[SN: 001] 1) Understand cancer is a multistep process characterized by multiple hallmarks.</p> <p>[SN: 002] 2) Understand cancer can be caused by genetic events and genomic instability, as well as current approaches in defining genetic loci and their applications in cancer screening/prevention.</p> <p>[SN: 003] 3) Understand the common cellular pathways deregulated in</p>

	<p>cancer cells.</p> <p>[SN: 004] 4) Understand clonal evolution of cancer and tumour heterogeneity, and the impact on therapeutic efficacy.</p> <p>[SN: 005] 5) Define the major properties of cancer stem cells and describe the major concepts and current advances in this field including their impact on cancer treatment.</p> <p>[SN: 006] 6) Understand the importance of tumour microenvironment in influencing the behaviors of cancer cells.</p> <p>[SN: 007] 7) Understand the role of infection and cancer.</p> <p>[SN: 008] 8) Describe the basic principles of cancer immunology and the implication in cancer therapy.</p> <p>[SN: 009] 9) Understand various types of cancer treatment.</p> <p>[SN: 010] 10) Understand how integration of biological knowledge and technological advances improve clinical management of cancer.</p> <p>[SN: 011] 11) Demonstrate the ability in making biological observations, collecting scientific data and communicating biological concepts of cancer with peers.</p> <p>[SN: 012] 12) Demonstrate the ability in critically reviewing and evaluating research literature in latest cancer research.</p> <p>[SN: 013] 13) Apply the biological knowledge in interpreting cancer-related health issues in everyday life.</p>
3 Tests : Quizzes (x3)	<p>[SN: 001] 1) Understand cancer is a multistep process characterized by multiple hallmarks.</p> <p>[SN: 002] 2) Understand cancer can be caused by genetic events and genomic instability, as well as current approaches in defining genetic loci and their applications in cancer screening/prevention.</p> <p>[SN: 003] 3) Understand the common cellular pathways deregulated in cancer cells.</p> <p>[SN: 004] 4) Understand clonal evolution of cancer and tumour heterogeneity, and the impact on therapeutic efficacy.</p> <p>[SN: 005] 5) Define the major properties of cancer stem cells and describe the major concepts and current advances in this field including their impact on cancer treatment.</p> <p>[SN: 006] 6) Understand the importance of tumour microenvironment in influencing the behaviors of cancer cells.</p> <p>[SN: 007] 7) Understand the role of infection and cancer.</p> <p>[SN: 008] 8) Describe the basic principles of cancer immunology and the implication in cancer therapy.</p> <p>[SN: 009] 9) Understand various types of cancer treatment.</p> <p>[SN: 010] 10) Understand how integration of biological knowledge and technological advances improve clinical management of cancer.</p> <p>[SN: 011] 11) Demonstrate the ability in making biological observations, collecting scientific data and communicating biological concepts of cancer with peers.</p> <p>[SN: 012] 12) Demonstrate the ability in critically reviewing and evaluating research literature in latest cancer research.</p> <p>[SN: 013] 13) Apply the biological knowledge in interpreting cancer-related health issues in everyday life.</p>

Course Grade Descriptors [Browse course grade descriptors](#)

Course URL Nil

Related Major/ Minor/ Professional Core

Description	Associated Credit Unit Statement
Minor in Genetics and Genomics (4)	Nil

Section C: Course Schedule

Course Schedule for this year 2020-21

Semester	Session	Start Date	End Date	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Start Time	End Time	Venue	Teaching Staff
2020-21 Sem 2	2A-LEC (1205)	18/01/2021	08/02/2021	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	02:30 PM	05:20 PM	Online	Cheng-Han Yu Chi Man Tsang Guang Sheng Ling Kwai Yee Ma Sai Wah Tsao Shing Yan Huen Wai Ting Cheung Yick Pang Ching
2020-21 Sem 2	2A-LEC (1205)	21/01/2021	04/03/2021	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12:30 PM	02:20 PM	Online	Cheng-Han Yu Chi Man Tsang Guang Sheng Ling Kwai Yee Ma Sai Wah Tsao Shing Yan Huen Wai Ting Cheung Yick Pang Ching
2020-21 Sem 2	2A-LEC (1205)	22/02/2021	01/03/2021	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	02:30 PM	05:20 PM	Online	Cheng-Han Yu Chi Man Tsang Guang Sheng Ling Kwai Yee Ma Sai Wah Tsao Shing Yan Huen Wai Ting Cheung Yick Pang Ching
2020-21 Sem 2	2A-LEC (1205)	15/03/2021	29/03/2021	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	02:30 PM	05:20 PM	Online	Cheng-Han Yu Chi Man Tsang Guang Sheng Ling Kwai Yee Ma Sai Wah Tsao Shing Yan Huen Wai Ting Cheung Yick Pang Ching
2020-21 Sem 2	2A-LEC (1205)	18/03/2021	29/04/2021	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12:30 PM	02:20 PM	Online	Cheng-Han Yu Chi Man Tsang Guang Sheng Ling Kwai Yee Ma Sai Wah Tsao Shing Yan Huen Wai Ting Cheung Yick Pang Ching
2020-21 Sem 2	2A-LEC (1205)	12/04/2021	26/04/2021	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	02:30 PM	05:20 PM	Online	Cheng-Han Yu Chi Man Tsang Guang Sheng Ling Kwai Yee Ma Sai Wah Tsao Shing Yan Huen Wai Ting Cheung Yick Pang Ching

Note: Teaching staff information will be printed once they are finalised.

Section D: Additional Course Information

Note: Information about course content and reading materials listed below is extracted from Moodle at scheduled intervals. Please refer to Moodle for up-to-date information.

Course Content and Topics

Lectures (28 hours total)

1. Nature of disease
2. Multistep carcinogenesis, tumour promotion and initiation, clonal evolution of cancer
3. Hallmarks of cancer
4. Cellular senescence and immortality
5. Infection and cancer
6. Tumour angiogenesis and vasculature
7. Cancer stem cells (2 hours lecture)
8. Cellular oncogenes, modes of activation, addiction in cancer
9. Tumour suppressor genes, modes of inactivation
10. Epigenetic events and cancer development
11. DNA repair, genomic instability and cancer development (2 hours lecture)
12. Molecular cytogenetics of cancer (2 hours lecture)
13. Growth signaling pathways in cancer (2 hours lecture)
14. Anti-apoptosis and autophagy in cancer
15. Cancer metabolism and energetics
16. Epithelial-mesenchymal transition
17. Cancer invasion and metastasis
18. Tumour microenvironment, inflammation and cancer (2 hours lecture)
19. Familial cancer and genetic susceptibility
20. Genomics landscape of human cancer
21. Cancer immunology
22. Tumour vaccine and immunotherapy
23. Personalized medicine and targeted therapy

Practical (5 hours total):

1. Live cell fluorescence microscopy (3 hours)
2. Analysis of cancer genomic data (2 hours) - hands-on analysis of cancer genomic data using several popular online tools and databases.

Others (12 hours total):

1. Oral Presentation (3 hours) – evaluation and presentation of current topics in cancer research
2. Review Tutorials (7 hours) – tutorial sessions for any questions that the students may have regarding the lectures or specific topic suggested by students; and for review of the 3 quizzes
3. Guest Speaker – Sharing from an Industry Perspective (2 hours)

Required/ Recommended Readings and Online Materials

TBC

Course Effectiveness Profile

Academic Year	Academic Career	Enrollment #	Response #	Response Rate (%)	Mean Course Effectiveness	Course Coordinator's Comments
1 2019	UG	16	2	12	75.0	
2 2018	UG	21	8	38	96.9	
3 2018	TPG	1	1	100	75.0	
4 2016	UG	11	5	45	75.0	

Note: Course effectiveness ratings are provided by the Social Sciences Research Centre (SSRC). If the number of response is less than 6, "Mean Course Effectiveness" will be masked. For further details, please refer to [Operational Guide for Student Evaluation of Teaching & Learning](#).

Section E: University Information

Academic Misconduct and Plagiarism

Academic honesty

The University highly values honesty in the academic work submitted by students, and adopts a policy of zero tolerance on cheating in examinations and plagiarism in any work submitted for assessment. Any student who commits such an academic offence is liable to be considered by the University's Disciplinary Committee for possible disciplinary action which can result in serious consequences - including expulsion from the University.

Plagiarism is copying the work of another person without proper acknowledgement. There are two parts in the definition: copying and the absence of proper acknowledgement. As a result, it gives an impression to an ordinary reader that the work is the original work of the author when in fact it was copied from some others' work. Copying does not necessarily only mean copying word for word. Closely paraphrasing or substantial copying with minor modifications (such as changing grammar, adding a few words or reversing active/passive voices) is still copying for this purpose. It does not matter what the nature of the source is: it may be a book, an article, lecture notes or simply an assignment of another student, or in electronic form such as a website, an audio-visual production or other non-textual material, to name but a few. It does not matter whether the source has been published or not. Plagiarism covers any form of work submitted for assessment, including these, dissertations, take-home examinations, assignments, projects and other forms of coursework.

Students are strongly advised to read the booklets "What is Plagiarism?" (<http://www.hku.hk/plagiarism/>) and "Plagiarism and How to Avoid it" (<http://www4.caes.hku.hk/plagiarism/>) and to consult your teachers if you have any questions on the definition of plagiarism and how to avoid it. Students are also advised to familiarise themselves with issues in relation to copyright as publicized in the section on "Copyright and Plagiarism" in the Student Handbook (<http://www.handbook.hku.hk/ug/>). These guidelines cover lecture notes, course materials, photocopies, internet materials as well as dissertations.

Students should read these guidelines carefully and revisit them from time to time.

University Assessment Policy

Please refer to the [University Assessment Policy](#) available online.

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