

1.	Name of Course/Module	Introduction to Medical Information Systems
2.	Course Code	HIS2019
3.	Status of Subject	[Leave blank]
4.	MQF Level/Stage	Bachelor Degree – MQF Level 6
5.	Version (state the date of the last Senate approval)	[Leave blank]
6.	Requirement for Registration	none
7.	Name(s) of academic/teaching staff	to be appointed
8.	Semester and Year offered	[Leave blank]
9.	Objective of the course/module in the programme : HIS 2019 provides the basis for developing an understanding of the fundamental computer-based applications that form the building blocks of health and medical information systems. A range of influential and emerging health informatics applications will be discussed in the course including computer-based patient records, patient-care systems, imaging systems, information retrieval systems, e-health applications and clinical decision support tools. In addition, HIS 2019 will give an overview of the role of the informatician in the health care institution. Topics related to professional development and project management will be introduced to equip students with a basis for implementing systems in the health care setting. The use of standards in development and integration of healthcare systems will be discussed. The ultimate objective will be to strengthen the knowledge of Medical IT graduates in the application of IT in the field of health and healthcare.	
10.	Learning Outcomes : At the completion of the subject, students should be able to: 1. demonstrate knowledge of healthcare organisation and work flow 2. demonstrate project management skills, including effective communication with healthcare management, to match the expectations of stake-holders and the capabilities of vendors 3. recognize the different roles and requirements of healthcare applications such as operational management systems, clinical information systems, laboratory information systems and electronic medical records 4. appraise various standards and medical coding used in building an IT system for healthcare	
11.	Synopsis: HIS2019 provides the basis for understanding the fundamental computer-based applications that form the building blocks of health and medical information systems, and how those applications can be effectively developed and managed Subjek ini membolehkan pelajar dapat memahami asas usul aplikasi komputer sebagai bahan asas dalam sebuah system informasi kesihatan..	
12.	Mapping of Subject to Programme Outcomes :	
	Programme Outcomes	% of Contribution
	PO1: [Leave blank]	40
	PO7: [Leave blank]	30
	PO8: [Leave blank]	30

	PO6: [Leave blank]	0	
13.	Assessment Methods and Types :		
	Method and Type	Description/Details	Percentage
	Test		0%
	Project	Presentation	25%
	Assignment	Report	15%
	Final Exam		60%
14.	Details of Subject		
	Topics	Mode of Delivery	
		Lecture	Tutorial
	1. Overview This introductory section examines the unique characteristics of clinical and life science data, and methods for representing and transformation of health data, information, and knowledge to improve health care.	2	1
	2. Attitude of Medical IT graduate This section focuses on personal and professional (career) development of a medical IT graduate, i.e. a health informatician. Roles and responsible, professional code of ethics & fraternity; the issue of the digital divide will also be discussed. IT implementation and strategic planning for health care; methodology and management. Communication skills and leadership in articulating ideas to be presented to the stake-holders and users.	6	2
	3. Healthcare Organisation This section explores the changes of healthcare in the globalised world. Processes in a typical health institution such as a hospital; business model and regulatory framework. Issues and challenges faced by health care providers and stake-holders in the implementation of IT systems. Typical patient journey through various departments of a hospital will be mapped. Paper-based hospital environments are compared and contrasted with paper-less ones.	6	2
	4. Health informatics foundation - Solution Introduction to Hospital Information Systems; scopes; issues; functionalities; integration; and interface. Operational system such as MPI, PMS, Medical Record, Patient Accounting. Specialised systems (EMR, CCIS, CIS, PACS, RIS, LIS, ECG etc), modalities integration.	6	2
	5. Health informatics foundation - Infra structure Hospital networks; design; monitoring; management and evaluation. Limitations and challenges in the design and planning of infrastructure for hospitals will be highlighted. Mapping the information topography of an e-hospital.	2	1
	6. Health informatics foundation - People ware HIS Project management basics includes project methodology; resource management; cost management; PM tools; communication management; and scope management. Effective Training for hospital users; How to plan & conduct effective training	6	2
	Total	28	10
15.	Tutorials		

	Parallel to the lecture topics		
16.	Total Student Learning Time (SLT)	Face to Face (Hour)	Total Guided and Independent Learning
	Lecture	28	28
	Tutorials	10	10
	Laboratory/Practical (hospital visits)	0	0
	Presentation (seminar / workshop)	0	0
	Assignment (2)	-	20
	Mid Term Test	0	0
	Final Exam	2	20
	Quizzes	0	0
	Sub Total	40	78
	Total SLT	118/40 = 2.95 => 3	
17.	Credit Value	3	
18.	Reading Materials :		
	Textbook	Reference Materials	
	1. Edwards H. Shortliffe & James J. Cimino <i>Biomedical Informatics 3rd edition</i> Springer 2006	1. Hsinchun Chen, Sherrilynne S. Fuller, Carol Friedman, William Hersh. <i>Medical Informatics: Knowledge Management and Data Mining in Biomedicine</i> , 1st edition, Springer, 2005. 2. Krzysztof Zielinski, Mariusz Duplaga and David Ingram editors <i>Information Technology Solutions for Healthcare</i> 1st edition, Springer (date)	
19.	Appendix (to be compiled when submitting the complete syllabus for the programme) :		
	<ol style="list-style-type: none"> 1. Mission and Vision of the University and Faculty 2. Mapping of Programme Objectives to Vision and Mission of Faculty and University 3. Mapping of Programme Outcome to Programme Objectives 4. Programme Objective and Outcomes (Measurement and Descriptions) 		