

T6. Course Specification (CS) توصيف المقرر

Institution Najran University	Date of Report: Wednesday, 03/05/2017
College/Department College of Applied Medical Sciences /Clinical Laboratory Sciences	

A. Course Identification and General Information

1. Course title and code: Clinical Bacteriology-1 3-MIC352			
2. Credit hours 3 (2+1)			
3. Program(s) in which the course is offered. Clinical Laboratory Sciences. (If general elective available in many programs indicate this rather than list programs)			
4. Name of faculty member responsible for the course Lectures: Dr. Mohammad AM Nasher. Practicals: Mr Mohammad Rudwan.			
5. Level/year at which this course is offered Level 5/3rd year			
6. Pre-requisites for this course (if any) General Microbiology MIC 251			
7. Co-requisites for this course (if any) -----			
8. Location if not on main campus Main Campus			
9. Mode of Instruction (mark all that apply)			
a. Traditional classroom	<input type="text" value="-----"/>	What percentage?	<input type="text" value="-----"/>
b. Blended (traditional and online)	<input type="text" value="Yes"/>	What percentage?	<input type="text" value="80%"/>
c. e-learning	<input type="text" value="Yes"/>	What percentage?	<input type="text" value="20%"/>
d. Correspondence	<input type="text" value="-----"/>	What percentage?	<input type="text" value="-----"/>
f. Other	<input type="text" value="-----"/>	What percentage?	<input type="text" value="-----"/>
Comments:			

B Objectives

1. What is the main purpose for this course? To provide the students of Applied Medical Sciences College with a comprehensive and up-to-date guide to Clinical Bacteriology including basic scientific knowledge as well as cognitive, psychomotor and interpersonal and numerical skills in the most reliable, easy, attractive and illustrated manner.
2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field) <ul style="list-style-type: none"> - Continuous updating of the information, knowledge and skills included in the course through continuous search for the new knowledge and skills available in recent publications (books, researches, internet and others). - Verifying the information resources. - Continuous improvements in teaching methods as well as encouraging the students to participate effectively in the lectures. - Continuous evaluation of the course content, student level and establish plans accordingly. - Practical notebook. - Group assignments.

C. Course Description (Note: General description in the form to be used for the Bulletin or handbook should be attached).

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact Hours
Staphylococci	2	4
Streptococci	2	4
Pneumococci	1	2
Neisseria	2	4
Corynebacteria	1	2
Spore-forming bacilli (Bacillus)	2	4
Spore-forming bacilli (Clostridia)	2	4
Mycobacteria	2	4
Anaerobes	1	2
Total	15	30
PRACTICALS		
Diagnostic methods of Staphylococcal infections	2	4
Diagnostic methods of Streptococcal infections	2	4
Diagnostic methods of Pneumococcal infections	2	4
Diagnostic methods of Neisseria infections	2	4
Diagnostic methods of Bacillus infections	1	2
Diagnostic methods of Clostridia infections	2	4
Diagnostic methods of Mycobacteria infections	2	4

Diagnostic methods of anaerobic infections	2	4
Total	15	30

2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30	-----	-----	15	-----	45
Credit	2	-----	-----	1	-----	3

3. Additional private study/learning hours expected for students per week.	
- Group assignments: The students will be divided into small groups (3 students/group) and will be given a research subject to be prepared in a written and software format for presentation.	
	1 credit Hr/Wk

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy
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Course Learning Outcomes, Assessment Methods, and Teaching Strategy work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning, assessment, and teaching.

The **National Qualification Framework** provides five learning domains. Course learning outcomes are required. Normally a course has should not exceed eight learning outcomes which align with one or more of the five learning domains. Some courses have one or more program learning outcomes integrated into the course learning outcomes to demonstrate program learning outcome alignment. The program learning outcome matrix map identifies which program learning outcomes are incorporated into specific courses.

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. **Fourth**, if any program learning outcomes are included in the course learning outcomes, place the @ symbol next to it.

Every course is not required to include learning outcomes from each domain.

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge: By the end of this course the student should be able to:		
1.1	Describe the causative agents of medically important bacterial diseases, including microbial virulence factors and their modes of transmission as well as pathogenesis and clinical manifestations of these diseases.	- Lectures, tutorials and independent study assignments.	Multiple choice questions. Short accounts Group assignment. Practical examination.
1.2	Memorize the rules of prevention and control of infectious diseases. State and identify multi-drug resistant pathogenic bacteria.	- Lectures, tutorials and independent study assignments.	Multiple choice questions. Short accounts Group assignment. Practical examination.
2.0	Cognitive Skills: By the end of this course the student should be able to:		
2.1	Summarise the suitable diagnostic procedures for bacterial pathogens.	Lectures, practical laboratory work and groups assignments.	Multiple choice questions. Short accounts Group assignment. Practical examination.
2.2	Justify the ability to think critically and make reasonable judgments by analyzing, combining and evaluating quantitative and non-quantitative information.	Practical laboratory work and groups assignments.	Multiple choice questions. Short accounts Group assignment. Practical examination.
3.0	Interpersonal Skills & Responsibility: By the end of this course the student should be able to:		
3.1	Demonstrate basic skills of microbiological techniques for detection and identification of pathogenic bacteria in the microbiology laboratory.	Group assignment, practical classes and tutorials.	Multiple choice questions. Short accounts Group assignment. Practical examination.
3.2	Show antimicrobial susceptibility testing with proper interpretations of the laboratory results according to the clinical evaluation of infected patients.	Group assignment, practical classes and tutorials.	Multiple choice questions. Short accounts Group assignment. Practical examination.
4.0	Communication, Information Technology, Numerical: By the end of this course the student should be able to:		
4.1	Evaluate efficiently the different knowledge resources including the library resources and the web sites.	Lectures, tutorials and independent study assignments.	Multiple choice questions. Short accounts Group assignment. Practical examination.
4.2	Examine laboratory results through various	Lectures, tutorials	Multiple choice questions.

	mathematical and statistical methods.	and independent study assignments.	Short accounts Group assignment. Practical examination.
5.0	Psychomotor		
5.1	Not applicable	-----	
5.2	Not applicable	-----	

Suggested Guidelines for Learning Outcome Verb, Assessment, and Teaching

NQF Learning Domains	Suggested Verbs
Knowledge	list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write.
Cognitive Skills	estimate, explain, summarize, write, compare, contrast, diagram, subdivide, differentiate, criticize, calculate, analyze, compose, develop, create, prepare, reconstruct, reorganize, summarize, explain, predict, justify, rate, evaluate, plan, design, measure, judge, justify, interpret, appraise.
Interpersonal Skills & Responsibility	demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question and write.
Communication, Information Technology, Numerical	demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess and criticize.
Psychomotor	demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment and reconstruct.

Suggested **verbs not to use** when writing measurable and assessable learning outcomes are as follows:

Consider	Maximize	Continue	Review	Ensure	Enlarge	Understand
Maintain	Reflect	Examine	Strengthen	Explore	Encourage	Deepen

Some of these verbs can be used if tied to specific actions or quantification.

Suggested assessment methods and teaching strategies are:

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	1 st Quiz	3 rd week	2.5%
2	Mid-term Exam	6 th week	20%
3	2 nd Quiz	12 th week	2.5%
4	Assignments	13 th week	5%
5	Practical notebook	14 th week	5%
6	Attendance	The whole semester	5%
7	Final practical exam	15 th week	20%
8	Final term Exam	15 th week	40%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

Each teaching staff member responsible for theoretical and practical parts will be available for 2 hours (10 am – 12 am) daily each week for individual student counseling and advice. This should include the time allocation and schedule for teaching staff to meet with students.

E. Learning Resources

1. List Required Textbooks 1. Lectures handout. 2. Practical notebook.
2. List Essential References Materials (Journals, Reports, etc.)
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc) 1. Medical Microbiology. Jawetz, Melnick and Adelberg's. Latest edition. 2. Bailey and Scott's Diagnostic Microbiology. Baron and Finegold. Latest Edition. 3. Color Atlas of diagnostic Microbiology. Maza LD, Pezzlo M, Baron E. Mosby-year book Inc., USA. Latest Edition 4. Manual of Clinical Microbiology. Murray PR, et al. ASM Press. Latest Edition. 5. Manual for the Laboratory Identification and Antimicrobial Susceptibility Testing of 6.. Bacterial Pathogens of Public Health Importance in the Developing World. Perilla MJ et al CDC and WHO. 6. District laboratory practice in tropical countries. Monica C. Cambridge Univ. Press. Latest edition. 7. Topley and Wilson's Microbiology and microbial infections. Balows A and Sussman M . Hodder Arnold Publication. Latest edition. 8. Zinsser Microbiology. Wolfgang et al. Appelton & Lange Co., CA, USA. Latest edition.
4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.) 1. E-Learning (education by fun): Video tapes (audio-visual) 2. www.WHO.com 3. www.CDC.com 4. www.ASM.com
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.).
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) Lecture room (20 students capacity) supplied with data show for lectures presentation Laboratory (15 students capacity) supplied with data show, microscopes (one for each student), incubators, ovens as well as reagents and kits for microbiological techniques.
2. Computing resources (AV, data show, Smart Board, software, etc.) - Computers and multimedia are already available.
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list). - Library supplied with reference text books, electronic resources.

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching - Confidential completion of standard course evaluation questionnaire. - Focus group discussion with small groups of students.
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor. - Observations and assistance from colleagues. - Independent advice on assignment tasks from the Dean and governing body.
3 Processes for Improvement of Teaching Reviewing the feedback and action plan for improvement will be organized accordingly.
4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution) - Check marking of a sample of examination papers by other staff members. - Check marking of assignment tasks by the Dean and governing body.
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. Based on students' questionnaires feedback.

Faculty or Teaching Staff: **Dr Mohammad AM Nasher**

Signature: 

Date Report Completed **Wednesday, 03/05/2017**

Received by: Dean/ Head, Department of Clinical Laboratory Sciences

Signature: Date: **Wednesday, 03/05/2017**