

## T6. Course Specification (CS)

Institution <b>Najran University</b>	Date <b>9/4/2017</b>
College/Department <b>College of Applied Medical Sciences/Clinical Laboratory Science Department</b>	

### A. Course Identification and General Information

1. Course title and code: <b>Clinical Bacteriology 2 (MIC 354)</b>			
2. Credit hours <b>3(2+1)</b>			
3. Program(s) in which the course is offered. <b>Microbiology</b> (If general elective available in many programs indicate this rather than list programs)			
4. Name of faculty member responsible for the course <b>Dr. Osman Abdellah Eltyep Elnoubi</b> <b>Practicle. Mr.Mishaal Al-Abass -</b>			
5. Level/year at which this course is offered <b>6<sup>th</sup> level 3ed year</b>			
6. Pre-requisites for this course (if any) <b>General Microbiology</b>			
7. Co-requisites for this course (if any) <b>Clinical Bacteriology (1)</b>			
8. Location if not on main campus			
9. Mode of Instruction (mark all that apply)			
a. traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="60"/>
b. blended (traditional and online)	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="10"/>
c. e-learning	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="10"/>
d. correspondence	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="10"/>
f. other	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="10"/>
Comments:			

## B Objectives

1. What is the main purpose for this course?

**1. Gain knowledge about 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.**

**2. Develop an understanding of prevention and control of infectious diseases.**

**3. Acquire basic skills of microbiological techniques for detection and identification of pathogenic bacteria in the microbiology laboratory.**

**4. Acquire basic skills of choosing suitable diagnostic procedures for bacterial diseases and performing antimicrobial susceptibility testing with proper interpretations of the laboratory results according to the clinical evaluation of infected patients.**

**5. Know and identify multi-drug resistant pathogenic bacteria**

**Perform laboratory techniques for detecting multi-drug resistance in these pathogens.**

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)

**1. 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).**

**2. Verifying the information resources.**

**3. Continuous improvements in teaching methods as well as encouraging the students to participate effectively in the lectures.**

**4. Continuous evaluation of the course content, student level and establish plans accordingly.**

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description:

**This course is deals with the study of gram negative bacteria and special topics in bacteriology**

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Enterobacteriaceae (E. coli, Klebsiella, Enterobacter and Citrobacter)	1.5	3
Enterobacteriaceae (Salmonella, Shigella and Proteus)	1.5	3
Pseudomonas and Vibrios	0.5	1
Campylobacter and Helicobacter	0.5	1
Yersinia and Brucella	1.5	3
Haemophilus and Bordetella	1	2
Legionella and Mycoplasma	0.5	1
Spirochaetes	1	2
Rickettsiae and Coxiella	1	1
Chlamydia	0.5	1
<b>Total</b>	<b>9</b>	<b>18</b>
Diagnostic methods of Enterobacteriaceae (E. coli, Klebsiella, Enterobacter and Citrobacter) infections	0.5	1
Diagnostic methods of Enterobacteriaceae (Salmonella and Shigella) infections	1	2
Diagnostic methods of Proteus and Pseudomonas infections	0.5	1
Diagnostic methods of Vibrios, Campylobacter and Helicobacter infections	0.5	1
Diagnostic methods of Brucella and Yersinia infections	0.5	1
Diagnostic methods of Haemophilus and Bordetella infections	0.5	1

Diagnostic methods of Legionella infection	0.5	1
Diagnostic methods of Mycoplasma infection	0.5	1
Diagnostic methods of Spirochaetes infections	0.5	1
Diagnostic methods of Rickettsiae and Chlamydia infections	0.5	2
<b>Practical</b>	<b>6</b>	<b>12</b>
<b>Total</b>	<b>15</b>	<b>30</b>

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	14	4	2	8	2	30
Credit	16	2	2	3	1	24

3. Additional private study/learning hours expected for students per week.

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

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. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
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1.0	<b>Knowledge</b> by the end of this course the student should be able to:		
1.1	Describe the morphology, cultural characters, virulence factors, methods of laboratory diagnosis and prevention of Gram negative bacilli, spirochaetes in addition to rickettsiae and chlamydia.	Lectures, tutorials and independent study assignments	Multiple choice questions , Group assignment short accounts
1.2			
2.0	<b>Cognitive Skills</b> by the end of this course the student should be able to:		
2.1	Evaluate the causal relationship between the microbe and the disease	Lectures, tutorials and independent study assignments	Practical notebook with laboratory problem solving-based questions Group assignment Short accounts
2.2	Formulate a systematic approach for laboratory diagnosis of common infectious clinical conditions and select the most appropriate and cost-effective tool leading to identification of the causative organism	Lectures, tutorials and independent study assignments	Practical notebook with laboratory problem solving-based questions Group assignment Short accounts
3.0	<b>Interpersonal Skills &amp; Responsibility</b> by the end of this course the student should be able to:		
3.1	Collaborate with colleagues as a team work.	Group assignment, practical classes and tutorials	- Students attendance - Group assignments
3.2	Deal ethically inside the lecture and practical classes with the staff, colleagues and environment like instruments, benches, laboratory material.	- Group assignment, practical classes and tutorials	- Students attendance - Group assignments
4.0	<b>Communication, Information Technology, Numerical</b> by the end of this course the student should be able to:		
4.1	Use computers, laptops, projectors and build up power point presentation.	Practical classes	practical exam Practical notebook with laboratory - problem solving-based questions
4.2			

5.0	Psychomotor		
5.1	not applicable		
5.2	not applicable		

#### 6. 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	Mid-term Exam theory	8	20%
2	Mid-term Exam practical	8	10%
3	Final Term Exam theory	15	40%
	Final Term Exam	14	20%
4	Students activity, attendance and Practical notebook	15	5%
5	2 Quizzes (10 minutes each) =2.5 to each one	One before and one after the midterm exam	5%
6	Total		100%

#### 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)

- Availability of teaching staff for consultations and advice.
- Academic hours will be determined and addressed on home pages of the staff members on Najran university web site.

#### E Learning Resources

##### List Required Textbooks

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 Bacterial Pathogens of Public Health Importance in the Developing World**. Perilla

<p>MJ, et al. CDC and WHO.</p> <p>6. <b>District laboratory practice in tropical countries.</b> Monica C. Cambridge Univ. Press. Latest edition.</p> <p>7. <b>Topley and Wilson's Microbiology and microbial infections.</b> Balows A and Sussman M. Hodder Arnold Publication. Latest edition.</p> <p>8. <b>Zinsser Microbiology.</b> Wolfgang et al. Appelton &amp; Lange Co., CA, USA. Latest edition.</p>
<p>2. List Essential References Materials (Journals, Reports, etc.)</p> <p>a. <b>Medical Microbiology.</b> Jawetz, Melnick and Adelberg's. Latest edition</p> <p>b. <b>District laboratory practice in tropical countries.</b> Monica C. Cambridge Univ. Press. Latest edition.</p>
<p>3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)</p> <p>a. <b>Medical Microbiology.</b> Jawetz, Melnick and Adelberg's. Latest edition</p> <p>b. <b>District laboratory practice in tropical countries.</b> Monica C. Cambridge Univ. Press. Latest edition.</p>
<p>4. List Electronic Materials, Web Sites, Facebook, Twitter, etc.</p> <p>1. <b>www.WHO.org</b></p> <p>2. <b>www.CDC.org</b></p> <p>3. <b>www.ASM.org</b></p> <p>4. <b>Saudi Digital library SDL</b></p>
<p>6. Other learning material such as computer-based programs/CD, professional standards or regulations and software.</p> <p>7. <b>www.WHO.org</b></p> <p>8. <b>www.CDC.org</b></p> <p>3. <b>www.ASM.org</b></p>

#### 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.) <b>Lecture rooms and laboratories are already available.</b>
2. Computing resources (AV, data show, Smart Board, software, etc.) <b>Computers and multimedia are already available</b>
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) <b>- Library supplied with reference text books, electronic resources</b>

#### G Course Evaluation and Improvement Processes

<p>1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching</p> <p><b>Midterm evaluation feedback.</b></p> <p><b>Completion of course evaluation questionnaire by each student.</b></p> <p><b>End of term discussion between the teacher and the students regarding what went well and what could have gone better.</b></p>
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<p>2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department</p> <p><b>Observations from colleagues.</b></p> <p><b>Class observation by supervisors.</b></p> <p><b>Independent assessment of standards achieved by the students.</b></p>
<p>3 Processes for Improvement of Teaching</p> <ul style="list-style-type: none"> <li>- <b>Continuous updating of course contents according to the previous course report.</b></li> <li>- <b>Regular meetings where problems are discussed and solutions given.</b></li> <li>- <b>Workshops on teaching methods.</b></li> <li>- <b>Review of recommended teaching strategies.</b></li> </ul>
<p>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)</p> <ul style="list-style-type: none"> <li>- <b>Check marking of a sample of student work by an independent faculty member.</b></li> <li>- <b>Periodic exchange and remarking of a sample of assignments with a faculty member in another institution.</b></li> <li>- <b>Students who believe they are under graded could have their papers checked by another reader.</b></li> </ul>
<p>5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.</p> <ul style="list-style-type: none"> <li>- Action plan for course improvement will be done according to the feedback about the course from students, other colleagues and the dean</li> </ul>

Name of Instructor: Dr.Osman Abdullah Eltyeb

Signature: Othman      Date Report Completed: 9/4/2017

Name of Course Instructor: Dr.Osman Abdullah Eltyeb

Program Coordinator:Dr.Budar El-Shehri

Signature: \_\_\_\_\_ Date Received: 9/4/2017