

**Kingdom of Saudi Arabia**

**The National Commission for Academic Accreditation &  
Assessment**

**MED-341**

**COURSE SPECIFICATION**

**Revised December 2011**

**By: Course Organizers**

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## Course Specification

Institution	<b>King Saud University</b>
College/Department	<b>Medicine / Internal Medicine</b>

### A Course Identification and General Information

1. Course title and code: <b>341</b>
2. Credit hours <b>10 hours</b> Theoretical <b>6 hours</b> Clinical <b>4 hours</b>
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs) <b>Medical Bachelor and Bachelor of Surgery MBBS</b>
4. Name of faculty member responsible for the course <b>Dr. Waleed Alhomodi</b> <b>Dr. Nahla Azzam</b>
5. Level/year at which this course is offered <b>Third Year</b>
6. Pre-requisites for this course (if any) <b>Students should pass successfully the basic science course conducted in 1<sup>st</sup> and 2<sup>nd</sup> year</b>
7. Co-requisites for this course (if any) <b>NONE</b>
8. Location if not on main campus <b>NONE</b>

**B Objectives**

<p>1. Summary of the main learning outcomes for students enrolled in the course.</p> <ul style="list-style-type: none"> <li>a. Students should acquire a <b>KNOWLEDGE AND UNDERSTANDING</b> of common diseases related to internal medicine in term of diagnosis , basic investigations and managements</li> <li>b. Students should acquire and become proficient in <b>Basic Clinical SKILLS</b>, such as the ability to obtain a patient’s history, to perform a comprehensive physical and mental status examination, to interpret the findings, and to demonstrate competence in the performance of basic technical procedures.</li> <li>c. Students should acquire and demonstrate <b>ATTITUDES</b> that foster patient centered care and support the highest standards of the medical profession.</li> <li>d. To communicate ethically with patients and their families, to work in group with colleagues ,and to use different tools of modern communication</li> </ul>
<p>2. Briefly describe any plans for developing and improving the course that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)</p> <ul style="list-style-type: none"> <li><b>a. The course has been divided to subspecialty theme and it was integrated between the medicine and surgery see attached modified version</b></li> <li><b>b. Introduction of casse based learning CBL</b></li> <li><b>c. Introduction for standardized patients to enhance the learning opportunities</b></li> <li><b>d. Introduction for manikins in skill lab</b></li> <li><b>e. Introduction for simulators to improve the learning opportunities</b></li> <li><b>f. Encourage international collaborations and partnerships to improve the education program</b></li> </ul>

**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		
Topic	No of Weeks	Contact hours

See topics listed in page 3	<b>36 weeks</b>	<b>90 hours</b>
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## LECTURE CONTENTS / OUTLINE

Contact HOUR	TOPIC DESCRIPTIONS
3 hours	<b>Introduction to the course and exam orientation</b>
10-hours	<b>Disease of Cardiovascular system:</b> <ul style="list-style-type: none"> <li>• Acute Coronary Syndromes</li> <li>• Heart Failure – Etiology and Diagnosis</li> <li>• Heart Failure – Prognosis and Management</li> <li>• Rheumatic Heart Diseases</li> <li>• Rheumatic Heart Diseases and Infective Endocarditis</li> <li>• Arrhythmia</li> <li>• Approach to Chest Pain</li> <li>• Approach to patient with Heart Failure</li> </ul>
10- hours	<b>Diseases of Pulmonary system:</b> <ul style="list-style-type: none"> <li>• Cough</li> <li>• Dyspnea</li> <li>• Bronchial Asthma</li> <li>• C.O.P.D.</li> <li>• Approach to Pleural Effusion</li> <li>• DVT / Pulmonary Embolism</li> <li>• Investigation of Lung Disease</li> <li>• Shock</li> <li>• Respiratory Failure</li> </ul>
7- hours	<b>Disease of Gastroentology System:</b> <ul style="list-style-type: none"> <li>• Approach to Chronic Diarrhea</li> <li>• Liver Cirrhosis and Complication</li> </ul>

	<ul style="list-style-type: none"> <li>● Inflammatory Bowel Disease</li> <li>● Acute Viral Hepatitis</li> <li>● Approach to Dysphagia</li> <li>● Approach Abdominal Pain</li> <li>● Gastrointestinal Bleeding</li> </ul>
12-hour	<p><b>Infectious disease System:</b></p> <ul style="list-style-type: none"> <li>● Tuberculosis</li> <li>● Approach to Febrile Patients</li> <li>● HIV/AIDS</li> <li>● Approach to Acute Diarrheal Disease</li> <li>● Common Viral Infection</li> <li>● Common Endemic Infection in Saudi Arabia</li> <li>● Health Care associated Infections</li> <li>● Use of Antibiotics</li> <li>● Infection in the Immunocompromised Host</li> <li>● Malaria and Travel medicine</li> </ul>
12-hours	<p><b>Endocrine disease :</b></p> <ul style="list-style-type: none"> <li>● DM (types, diagnosis, etiology)</li> <li>● DM (chronic complications.. Nephropathy, Vasculopathy...etc )</li> <li>● DM (Acute complications DKA, hyperosmolar, and hypoglycemia)</li> <li>● Metabolic Bone Disease</li> <li>● Obesity</li> <li>● Pituitary Disorders</li> <li>● Adrenal Disorders</li> <li>● Thyroids Disorders</li> <li>● Hyperlipidemia</li> <li>● DM (Approach to Diabetic Patients)</li> </ul>
	<p><b>Oncology /Haematology disorders</b></p> <ul style="list-style-type: none"> <li>● Bleeding Disorders</li> <li>● Anemia</li> <li>● Leukemia (Acute and Chronic)</li> <li>● Approach to Anemia</li> </ul>

10-hours	<ul style="list-style-type: none"> <li>• Hypercoagulable states</li> <li>• Common Solid Tumor</li> <li>• Lymphoma</li> <li>• Introduction to cancer diagnosis and treatment</li> </ul>
10-hours	<b>Nephrology disorders :</b> <ul style="list-style-type: none"> <li>• Hypertension</li> <li>• Approach to Acute Kidney Injury</li> <li>• Chronic Kidney Disease</li> <li>• UTI</li> <li>• Acid Base Disorder</li> <li>• Approach to Hematuria and Proteinuria</li> </ul>
12 -hours	<b>Diseases of CNS</b> <ul style="list-style-type: none"> <li>• Approach to Localization in Clinical Neurology</li> <li>• Physical Examination of Nervous System</li> <li>• Approach to patients with Weakness</li> <li>• Muscle Disease</li> <li>• Seizure</li> <li>• Cerebrovascular Disease</li> <li>• Peripheral Neuropathies</li> <li>• CNS Infections</li> <li>• Approach to Headache</li> <li>• Altered Mental Status</li> </ul>
4-hours	<b>Rheumatology disorders :</b> <ul style="list-style-type: none"> <li>• SLE and Scleroderma</li> <li>• Rheumatoid Arthritis &amp; OA</li> <li>• Approach to Chronic Arthritis</li> <li>• Chronic Back Pain</li> </ul>

Theoretical and Practical Activities in **MED COURSE 341 :**

<b>ACTIVITIES</b>	<b>OUTLINE</b>
<b>I. Theoretical Activities</b>	<b>1. Lectures. 3 hours /week/year</b>

	<p><b>2. CBL 3hours/week/year</b>  <b>See attached topics</b></p>
<b>II. Practical Activities</b>	<p><b>(1) Clinical part : 3 hours/week/ year</b>  Main objectives:</p> <ul style="list-style-type: none"> <li>• <b><u>To master history taking and to know the definitions of different medical terminology and symptoms</u></b></li> <li>• <b><u>To learn the basic technique for physical examination .</u></b></li> <li>• <b><u>To identify the abnormal physical finding of different systems</u></b></li> </ul>

2 Course components (total contact hours per semester):			
Lecture: <b>Total of 90 hours</b>	CBL: <b>Total of 3 hr/week/year hours</b>	Bed side clinical teaching : <b>3 hours/week /year</b>	Other: none

3. Additional private study/learning hours expected for students per week. (This should be an average :for the semester not a specific requirement in each week)

**1 hours** prior each session to prepare the cases for discussion

**Encouraging students to attend courses, symposiums, and workshops.**

#### 4. Development of Learning Outcomes in Domains of Learning

For each of the domains of learning shown below indicate:

- A brief summary of the knowledge or skill the course is intended to develop;
- A description of the teaching strategies to be used in the course to develop that knowledge or skill;
- The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.

##### **a. Knowledge**

(i) Description of the knowledge to be acquired

**By the end of this course, students should be able to:**

**Identify and discuss most of medical diseases which may include the following:**

- 1. Obstructive lung diseases (e.g. COPD and asthma)**
- 2. Bronchiactesis**
- 3. Restrictive lung diseases (e.g Pulmonary fibrosis)**
- 4. Tuberculosis**
- 5. Pneumonia**
- 6. Shock**
- 7. Pituitary disorders**
- 8. thyroid disorders**
- 9. Adrenal glands disorders**
- 10. Diabetes**
- 11. Obesity**
- 12. Parathyroid and Bone diseases**
- 13. Dyslipidemia**
- 14. Infective endocarditis**
- 15. Meningitis**
- 16. Gastroenteritis**
- 17. Hospital acquired infections**
- 22. Anaemia, neutropenia and platelets disorders**
- 23 Leukaemia**
- 24 Lymphomas**
- 25 Multiple myeloma**
- 26 Solid cancer**
- 27 Coagulopathies**
- 28 Acute and chronic renal failure**
- 29 Nephrotic and Nephritic syndrome**
- 30 Dialysis and transplantation problems**
- 31 UTI**
- 32 Gastritis and PUD**



- 33 Inflammatory bowel disease
- 34 Hepatitis.
- 35 Cirrhosis
- 36 Coma
- 37 Stroke
- 38 Myopathy
- 39 Parkinson disease
- 40 Headache
- 41 Seizure disorders
- 42 Hypertension
- 43 Acute and Chronic presentation of Ischemic heart disease
- 44 Valvular heart disease
- 45 Heart failure
- 46 Osteoarthritis
- 47 Rheumatoid arthritis
- 48 SLE
- 49 Vasculitis

**In terms of:**

- The causes, risk factors and precipitating factors
- The pathogenesis
- The clinical picture
- Appropriate investigations
- Basic Management outlines
- Associated communication and Ethical components

(ii) Teaching strategies to be used to develop that knowledge

1. Didactic lectures and tutorials.
2. Clinical bed side teaching sessions
3. CBL

(iii) Methods of assessment of knowledge acquired

1. Written Examination (Multiple Choice Questions)
2. Objective Structured Clinical Examination (OSCE).
3. Tutor/student formative evaluation form at the end of each semester

CognitiveSkills:(explain;discuss;interpret,distinguish;appraise;solve;differentiate;investigate;design;plan,evaluate)

1. Integrate the data obtained from the symptoms, signs of the patients
2. Able to collect the data into meaningful diagnosis
3. Able to put differential diagnosis for the patients complains
4. Able to order the appropriate investigations
5. Construct appropriate management strategies.

<p><b>Interpersonal Skills and Responsibility</b></p>
<p>(i) Description of the interpersonal skills and capacity to carry responsibility to be developed</p> <ol style="list-style-type: none"> <li>1. <b>Work constructively in a group, cooperating with their leaders and seniors.</b></li> <li>2. <b>Use means to find new information data or technique analysis, for the best utilization of their lectures and tutorials.</b></li> <li>3. <b>Be able to report comprehensive information about patients in an oral or written manner.</b></li> <li>4. <b>Design in certain situations, together with other specialties an appropriate treatment plan thus initiating the value of teamwork and compliance to work through systems</b></li> <li>5. <b>Communicate properly and ethically with the patients in a serious and respectable manner to have relevant data to their complaints</b></li> </ol>
<p>(iii) Methods of assessment of students cognitive skills</p> <ol style="list-style-type: none"> <li>1. <b>Feedback and discussion during lectures, CBL, and clinical activities</b></li> <li>2. <b>Objective Structures Clinical Examination (OSCE).</b></li> </ol>
<p><b>d. Communication, Information Technology and Numerical Skills</b></p>
<p>(i) Description of the skills to be developed in this domain.</p> <ul style="list-style-type: none"> <li>○ <b>Communicate in a facilitative, effective, efficient, and educational manner with patients and their families.</b></li> <li>○ <b>Communicate clearly and succinctly to colleagues and other members of the health care team.</b></li> <li>○ <b>Use modes of modern communication.</b></li> <li>○ <b>Access all the information of the scientific activities posted in the Department's web site e.g. seminars, courses, and conferences.</b></li> <li>○ <b>Exhibit empathy, tact, and compassion during history taking and physical examination, maintaining a professional and ethical code of conduct.</b></li> </ul>
<p>(ii) Teaching strategies to be used to develop these skills</p> <p><b>Biweekly Bedside teaching on medical floor</b></p>
<p>(iii) Methods of assessment of students numerical and communication skills</p> <ol style="list-style-type: none"> <li>a. <b>Oral case presentations during weekly bedside teaching with students mentor.</b></li> <li>b. <b>CBL discussion with the tutors with different clinical scenario related to the corresponding theme</b></li> </ol>

<p><b>c. Midterm and Final clinical examination (OSCE)</b></p>
<p><b>e. Psychomotor and Professional Skills</b></p>
<p>(i) Description of the psychomotor skills to be developed and the level of performance required</p> <p>Description of the psychomotor skills to be developed and the level of performance required</p> <p><i>By the end of this course, students should be able to:</i></p> <ol style="list-style-type: none"> <li><b>1. Take a complete history for a given patient:</b> <ol style="list-style-type: none"> <li><b>a. Elicit the presenting problems and relevant details</b></li> <li><b>b. Elicit past medical/surgical history, family history, social history, medications and allergies</b></li> <li><b>c. Perform an appropriate review of systems to detect other health problems</b></li> <li><b>d. Establish a comfortable rapport with the patient</b></li> </ol> </li> <li><b>2. Perform general and focused clinical examination for a given patient:</b> <ol style="list-style-type: none"> <li><b>a. Perform the examination, general and systemic, in logical sequence, focusing on particular systems when appropriate</b></li> <li><b>b. Show sensitivity and respect during the physical examination, explaining the procedures to the patient in understandable language.</b></li> <li><b>c. Demonstrate proper use of medical instruments (e.g. stethoscope, sphygmomanometer)</b></li> <li><b>d. Demonstrate proper use of draping to position the patient for optimal exposure while maintaining patient dignity and privacy</b></li> </ol> </li> <li><b>3. Concisely communicate the history and physical examination in accepted medical terminology</b></li> <li><b>4. Present significant positive and negative findings in a systematic fashion</b></li> <li><b>5. Diagnose medical diseases prevalent in the community</b></li> </ol>
<p>(ii) Teaching strategies to be used to develop these skills</p> <p><b>Bedside teaching</b></p>
<p>(iii) Methods of assessment of students psychomotor skills</p> <ul style="list-style-type: none"> <li><b>• Oral case presentation by each student done on twice weekly basis under supervision of their tutor</b></li> </ul>

- **Assessment and observation during practical activities**
- **During midterm and final OSCE exam observing the student interaction with his patients**

#### 5. Schedule of Assessment Tasks for Students During the Semester

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	Midterm written examination		15%
2	Midterm OSCE		15%
3	Final written examination		20%
4	Tutor evaluation (5% )at end of each semester		10%
5	Final OSCE		30%

#### D. Student Support

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

- 1. Academic advisors office**
- 2. Weekly meeting with course organizers and the team leaders**
- 3. Course secretary who is available 7 hours/day ,5days/week for any inquiry and support for the students**
- 4. All teaching staff of the Department are available during their office hours for any inquiry and support for the students.**

#### E Learning Resources

1. Required Text(s)

- **Kumar and Clark Clinical Medicine(Latest Edition )**
- **Davidson's Principles and Practices of medicine(Latest Edition)**
- **Tally & O'Connors Clinical Examination(Latest Edition)**

2. Essential References

- **Harrison's principles of internal medicine ( latest Edition)**
- **Current Medical Diagnosis & Treatment(Latest Edition)**

3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List)

<p>a. <b>Kumar and Clark Clinical Medicine</b>(Latest Edition)</p> <p>b. <b>Tally &amp; O'Connor's Clinical Examination</b>(Latest Edition)</p>
<p>4-.Electronic Materials, Web Sites etc</p> <ul style="list-style-type: none"> <li>• <b>Department's teaching staff personal websites on University site where all course lecturers are available .</b></li> <li>• <b>Pubmed</b></li> <li>• <b>Medscape</b></li> </ul>
<p>5- Other learning material such as computer-based programs/CD, professional standards/regulations</p> <p>Skill lab facilities includes manikins, CD for how to perform clinical exam , e-learning cases</p> <p><b>CD's and materials prepared by seminar, workshops and conferences conducted by Medicine department, which are available in the Department.</b></p>

## **F. Facilities Required**

<p>Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.)</p>
<p>1. Accommodation (Lecture rooms, laboratories, etc.)</p> <ul style="list-style-type: none"> <li>• <b>2 Lecture halls for males (120 seats each).</b></li> <li>• <b>1 Lecture halls for females (100 seats).</b></li> <li>• <b>10 class rooms in the In-patient Ward</b></li> </ul>
<p>2. Computing resources</p> <p><b>Book and electronic resources are all available college library</b></p>
<p>3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list)</p> <p><b>Tools for physical assessment of the patients :</b></p> <ul style="list-style-type: none"> <li>• <b>Stethoscope</b></li> <li>• <b>Sphygmomanometers</b></li> <li>• <b>Torch</b></li> <li>• <b>Ophthalmoscope</b></li> <li>• <b>tendon hammer and full neurology setup</b></li> <li>• <b>all available equipments in the skill lab in Medical education department</b></li> </ul>

## **G Course Evaluation and Improvement Processes**

<p>1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching</p> <p>a. <b>Students representative are required to submit reports documenting problems, and suggestions</b></p> <p>b. <b>Formal meeting of course organizers, chairman of the department and</b></p>
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<p><b>student representatives two-three times a year</b></p> <p><b>c. Evaluations and Questionnaire regarding:</b>  Lectures and CBL (at the end of every lecture/tutorial)  Course as a whole (at the end of the course).</p>
<p>2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department</p> <ul style="list-style-type: none"> <li>• <b>Course improvement committee meets regularly to revise the course content and methods of assessment</b></li> <li>• <b>Discussion and feedback about lectures, tutorials and clinical activities.</b></li> <li>• <b>A personal interview</b></li> </ul>
<p>3 Processes for Improvement of Teaching</p> <ul style="list-style-type: none"> <li>• <b>We implement with marks the formative evaluation form (tutor to the students) into marks, 10% of total marks (5%each semester)</b></li> <li>• <b>Implement the student /tutor evaluation sheet for the lecturers</b></li> <li>• <b>Arranging lecture/tutorials for the Teaching Staff to improve their teaching abilities.</b></li> <li>• <b>Encouraging teaching staff to attend workshops on medical education.</b></li> </ul>
<p>4. Processes for Verifying Standards of Student Achievement (eg. check marking by an independent faculty member of a sample of student work, periodic exchange and remarking of a sample of assignments with a faculty member in another institution)</p> <ul style="list-style-type: none"> <li>• <b>Formulation of exam committee within medicine department that handle the written and OCSE exam</b></li> <li>• <b>Review written exams by 2-3 independent staff</b></li> <li>• <b>Random check marks.</b></li> </ul>
<p>5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.</p> <p><b>A committee of experienced professors in the department meet regularly to review various content of the course and put plan for improvement</b></p>