# REQUIRED COURSES

A. SUMMARY DATA
B. REQUIRED COURSE FORM

## PART A. SUMMARY DATA ON COURSES

Complete the following tables for all required courses:

### A. METHODS OF INSTRUCTION

**YEAR ONE**

Formal instructional hours

| Course | Lecture | Lab | Small groups* | Patient contact | Other† | Total |
|---|---|---|---|---|---|---|
| Scientific Principles of Medicine | | | | | | |
| General Concepts | 72 | 16 | 80 | | | 168 |
| Gastroenterological/Nutritional/ Hematological Systems | 90 | 20 | 100 | | | 210 |
| Musculoskeletal/Neurological Systems | 90 | 20 | 100 | | | 210 |
| Cardiovascular/Pulmonary Systems | 90 | 20 | 100 | | | 210 |
| Integration of Concepts, I | 18 | 4 | 20 | | | 42 |
| Masters' Colloquium I [a] | 10 | | 60 | | 10 | 80 |
| Medical Skills I | | | | 80 | | 80 |
| Society, Community, and the Individual I [b] | 20 | | | 40 | 20 | 80 |
| TOTAL | 390 | 80 | 460 | 120 | 70 | 1,080 |

* Includes case-based or problem solving sessions

† Describe

[a] Masters' Colloquium will include presentations from visiting officials, site visits, and table-top exercises on topics such as local disaster planning

[b] This course will include a transition from the classroom and lectures through community visits, orientation to the community, and community needs assessments to direct patient contact and provider activities

**YEAR TWO**

Formal Instructional Hours

| Course | Lecture | Lab | Small groups* | Patient contact | Other† | Total |
|---|---|---|---|---|---|---|
| Scientific Principles of Medicine | | | | | | |
| Renal/Endocrine Systems | 108 | 24 | 120 | | | 252 |
| Reproduction | 72 | 16 | 80 | | | 168 |
| Mind and Human Development | 90 | 20 | 100 | | | 210 |
| Dermal Conditions and the Senses | 72 | 16 | 80 | | | 168 |
| Integration of Concepts II | 18 | 4 | 20 | | | 42 |
| Masters' Colloquium II [a] | 10 | | 60 | | 10 | 80 |
| Medical Skills II | | | | 80 | | 80 |
| Society, Community and the Individual II [b] | 20 | | | 40 | 20 | 80 |
| TOTAL | 390 | 80 | 460 | 120 | 70 | 1,080 |

* Includes case-based or problem solving sessions

† Describe

[a] Masters' Colloquium will include presentations from visiting officials, site visits, and table-top exercises on topics such as local disaster planning

[b] This course will include a mixture of lectures, community activities and direct patient care

## B. METHODS OF EVALUATION

**YEAR ONE**

| Course | # of Exams | Contribute to Grade (Check all that apply) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Internal Exams | Lab or practical Exams | NBME Subject Exams | Faculty/ Resident Rating* | OSCE/SP Exam | Paper or Oral Pres. | Other† |
| Scientific Principles of Medicine | | | | | | | | |
| General Concepts | 1 | √ | √ | | √ | √ | | |
| Gastroenterological/Nutritional / Hematological Systems | 1 | √ | √ | | √ | √ | | |
| Musculoskeletal/Neurological Systems | 1 | √ | √ | | √ | √ | | |
| Cardiovascular/Pulmonary Systems | 1 | √ | √ | | √ | √ | | |
| Integration of Concepts I | 1 | | | √ | √ | √ | | |
| Masters' Colloquium I | ‡ | | | | √ | | √ | √ |
| Medical Skills I | ‡ | | √ | | √ | √ | | √ |
| Society, Community, and the Individual I | ‡ | | | | √ | | √ | √ |

* Include evaluations by faculty members or residents in clinical experiences and also in small group sessions (for example, a facilitator evaluation in small group or case-based teaching)
† Describe the specifics in the report narrative
‡ Incorporated into the examinations for Scientific Principles of Medicine

A wide range of evaluation methods will be used throughout the curriculum. We will try to match the method of evaluation with the outcome to be measured (knowledge, skills, attitudes, and behaviors).

Formative evaluations will occur on a weekly basis throughout the year. These examinations will include a diversity of written, oral, and demonstration components.

A summative evaluation will conclude each of the five courses contained in "Scientific Principles of Medicine". These examinations will include an OSCE component as well as examination materials in written and oral format. At the same time, a narrative evaluation will be coordinated by the course director.

Because the structure of courses cut across traditional subjects, we will use NBME subject examinations only at the conclusion of the course entitled Integration of Systems.

In the course, Masters' Colloquium, we will obtain written, narrative evaluations from the College Masters as well as written and oral presentations. Included in the oral presentations will be student-led debates on controversial topics in medicine.

In the course, Medical Skills, we will obtain evaluations from patients (both real and simulated), clinical staff, and student peers. In addition, students will be required to demonstrate proficiency in specific clinical skills related to history taking and physical assessment and in simple procedures using clinical simulators.

In the courses, Medical Skills and Society, Community, and the Individual, we will seek evaluations from patients (both real and simulated), clinical staff, and student peers.

**YEAR TWO**

| Course | # of Exams | Contribute to Grade (Check all that apply) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Internal Exams | Lab or practical Exams | NBME Subject Exams | Faculty/ Resident Rating* | OSCE/SP Exam | Paper or Oral Pres. | Other† |
| Scientific Principles of Medicine | | | | | | | | |
| Renal/Endocrine Systems | 1 | √ | √ | | √ | √ | | |
| Reproduction | 1 | √ | √ | | √ | √ | | |
| Human Development and Life Cycle | 1 | √ | √ | | √ | √ | | |
| Mind and Human Development | 1 | √ | √ | | √ | √ | | |
| Dermal Conditions and the Senses | 1 | √ | √ | | √ | √ | | |
| Integration of Concepts II | ‡ | | | √ | √ | √ | | |
| Masters' Colloquium II | ‡ | | | | √ | | √ | √ |
| Medical Skills II | ‡ | | √ | | √ | √ | | √ |
| Society, Community, and the Individual II | ‡ | | | | √ | | √ | √ |

* Include evaluations by faculty members or residents in clinical experiences and also in small group sessions (for example, a facilitator evaluation in small group or case-based teaching)
† Describe the specifics in the report narrative
‡ Incorporated into the examinations for Scientific Principles of Medicine

A wide range of evaluation methods will be used throughout the curriculum. We will try to match the method of evaluation with the outcome to be measured (knowledge, skills, attitudes, and behaviors).

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Because the structure of courses cut across traditional subjects, we will use NBME subject examinations only at the conclusion of the course entitled Integration of Systems.

In the course, Masters' Colloquium, we will obtain written, narrative evaluations from the College Masters as well as written and oral presentations. Included in the oral presentations will be student-led debates on controversial topics in medicine.

In the course, Medical Skills, we will obtain evaluations from patients (both real and simulated), clinical staff, and student peers. In addition, students will be required to demonstrate proficiency in specific clinical skills related to history taking and physical assessment and in simple procedures using clinical simulators.

In the courses, Medical Skills and Society, Community, and the Individual, we will seek evaluations from patients (both real and simulated), clinical staff, and student peers.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: General Concepts |
| **Sponsoring department or unit:** | Family Medicine<br>Medical Education |
| **Name of course director(s):** | Kathryn Horn, MD / To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Pathology | 4 |
| Family Medicine | 4 |
| College Masters | 4 |
| Radiology | 1 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

The overall course objectives are described below, but the course will include seven individual units based upon clinical presentations. Each of these units will include specific written objectives that will be available in the course syllabus and will also be available on site.

Briefly summarize the objectives/content areas covered in the course.

This course will serve to introduce the student to the fundamental concepts of modern cellular biology. For that it will provide a "leveling" course for all students coming from diverse backgrounds of undergraduate preparation. At the same time, the students will begin to use clinical presentations as the framework for understanding basic science concepts and correlating them with clinical features of a disorder.

Specific educational objectives include:

1. Cell structure and function: To understand the microscopic anatomy of the eukaryotic cell, including the morphologic, biochemical, and functional characteristics of the major organelles
2. DNA, RNA, and information transfer: To describe and explain the normal and abnormal structural and biochemical nature of nucleic acids and their precursors within the framework of biological information transfer and its dysfunction

3. Microbial biology and infection: To characterize the microbial cell including similarities and differences with the eukaryote and to understand the basic principles of infection
4. Proteins and protein function: To understand the structural characteristics of proteins and these characteristics on protein function within the intact organism
5. Intracellular systems: To expand the understanding of cell structure and function to include mechanisms of intracellular transport and interactions of intracellular structures
6. Communications and homeostasis: To describe the mechanisms, intracellular, extracellular, and systemic, that permit communications and promote regulation of critical pathways
7. Drug effects and pharmacokinetics: To understand the common biological mechanisms that are associated with pharmacologic effects and to describe the biochemical characteristics of pharmacologic agents
8. Mechanisms of disease: To explain the fundamental mechanisms and the clinical manifestations of the cardinal disease processes including infection, inflammation, neoplasia, aplasia, and necrosis

These will be addressed in the framework of the following clinical presentations:

1. Allergic reactions and atopy
2. Sore throat and upper respiratory infections
3. Thermoregulation and temperature
4. Genetic concerns
5. Weight and abnormal weight
6. Population health
7. Periodic health examination, growth and development

Basic information will be provided for each clinical presentation including a brief definition and a statement of its clinical significance. A list of the potential causes for the presentation will be provided along with a schematic representation of the relationships of those causal entities.

This list of causes and the associated schematic representation will provide the basis for discussion of each of the entities, including underlying anatomic, biochemical, and patho-physiological concepts. Clinical faculty will lead discussions and present lectures concerning clinical materials. One of the radiology faculty will provide radiological correlations, and the College Masters will participate in small group discussions, content reviews, and possible remedial sessions.

The student will need to have an understanding of basic science principles to comprehend the list of causes. Thus, each clinical presentation will include a set of basic science learning objectives related to the appropriate scientific concepts of anatomy, biochemistry, physiology, genetics, immunology, microbiology, pharmacology, and pathology. In particular, the learning objectives related to molecular and cellular biology listed above will be emphasized. Basic science faculty, with discipline-specific assignments, will provide this correlation with a mixture of lectures, small group discussions, laboratory demonstrations, and active laboratory exercises including gross anatomy dissections and prosections, and computer-based activities. Pathology will provide pathological correlations including gross and microscopic demonstrations.

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: General Concepts |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

A narrative evaluation is coordinated by the course director and provided at the end of the course by faculty coordinators of small group activities as well as by the college master(s) responsible for the student.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. Instructors will be drawn from both the basic science and clinical faculty. There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. As a matter of quality control of the curriculum, at the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: Gastroenterological/Nutritional/Hematological Systems |
| **Sponsoring department or unit:** | Internal Medicine<br>Medical Education |
| **Name of course director(s):** | Javier Corral, MD / William Chamberlin, MD |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Internal Medicine (Gastroenterology, Endocrinology, Hematology) | 4 |
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Pediatrics | 2 |
| Family Medicine | 2 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

This course will develop correlations and linkages among the clinical disciplines of gastroenterology, hematology, and clinical nutrition. Each component will have specific written objectives. In addition, the 14 clinical presentations that serve as the framework for the course all have specific learning objectives available in the course syllabus and will be available on site.

Briefly summarize the objectives/content areas covered in the course.

Content areas of the course are summarized in the 14 clinical presentations related to nutrition or the gastrointestinal and hematic systems. These include:

1. Weight loss
2. Vomiting and nausea
3. Dysphagia
4. Diarrhea
5. Constipation
6. Abdominal distension
7. Abdominal pain
8. Abdominal mass
9. Lymphadenopathy

10. Blood from the gastrointestinal tract
11. Hemoglobin
12. Bleeding tendency/bruising
13. Abnormalities of white blood cells
14. Abnormal liver function tests, and jaundice

The sequence of these clinical presentations has been structured so that the concepts developed during the study of one topic provide a foundation for the subsequent topic. The three disciplines are interwoven. For example, consideration of the manifestations and causes of gastrointestinal bleeding will lead logically to consideration of the manifestations of blood loss, including anemia and its classification, and then to the patho-physiology of bleeding and blood coagulation.

Basic information will be provided for each clinical presentation including a brief definition and a statement of its clinical significance. A list of the potential causes for the presentation will be provided along with a schematic representation of the relationships of those causal entities. This list of causes and the associated schematic representation will provide the basis for discussion of each of the entities, including underlying anatomic, biochemical, and patho-physiological concepts.

The student will need to have an understanding of basic science principles to comprehend the list of causes. Thus, each clinical presentation will include a set of basic science learning objectives related to the appropriate scientific concepts of anatomy (including gross, microscopic, and radiographic components), biochemistry, physiology, genetics, immunology, microbiology, pharmacology, and pathology. Basic science faculty will participate in this component of the instructional process. Gross anatomy and microscopic anatomy laboratories will provide the anatomical framework, along with radiological correlations provided by a member of the Department of Radiology. Other discipline experts will provide instruction using various teaching methods including lectures, laboratories, and small group discussions.

Masters from all of the colleges will participate in both the instructional and evaluation components of the course.

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

> Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

> The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: Gastroenterological/Nutritional/Hematological Systems |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

A narrative evaluation of student performance will be developed at the conclusion of the course, overseen by the course director, and incorporating information provided by faculty members directly involved with the student (laboratory instructors, small group discussion leaders, college masters).

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. There is an adequate number of clinical. We anticipate recruiting a sufficient number of basic science medical educators to provide instruction.. There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-

based instruction are adequate to meet the teaching needs. As a matter of quality control of the curriculum, at the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: Musculoskeletal/Neurological Systems |
| **Sponsoring department or unit:** | Surgery<br>Medical Education |
| **Name of course director(s):** | Daniel Lacerte, MD / To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Surgery (Neurosurgery) | 1 |
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Internal Medicine (General, Rheumatology) | 4 |
| Orthopaedic Surgery | 4 |
| Neurology | 2 |
| Psychiatry | 4 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

Each of the 13 clinical presentations that comprise this course has its own set of written learning objectives that include those focused on an understanding of underlying basic science concepts as well as clinical components of the topic. These written objectives are available in the individual syllabi that are provided for each clinical presentation. These objectives and syllabi are available on site

Briefly summarize the objectives/content areas covered in the course.

The content areas of this component of the SPOM series include consideration of the musculoskeletal system including rheumatologic, neurological, neurosurgical, and orthopedic concerns. They also cover neurological disorders that are associated with structure and function of the skeletal system. The clinical component of this course will require a broad range of clinical specialists that will be drawn from a number of the clinical departments, In some instances, they will lead small group discussions, while in other instances they will provide lectures or clinical demonstrations.

In addition, each clinical presentation will include a set of basic science learning objectives related to the appropriate scientific concepts of anatomy, biochemistry, physiology, genetics, immunology, microbiology, pharmacology, and pathology. Anatomy, both gross and microscopic, will be an important component of this course. Dissection and prosection will be emphasized. Other basic science disciplines will be covered by the appropriate medical education faculty member using various teaching modalities including lectures, small group discussions, and laboratories. In some sessions, team teaching will be emphasized.

The thirteen clinical presentations are::

1. Bone fractures, dislocations, and joint injuries
2. Musculoskeletal lumps and masses
3. Pain
4. Joint pain
5. Numbness, tingling, and altered sensation
6. Gait disturbances, imbalance, and ataxia
7. Movement disorders
8. Deformity and limp
9. Headache
10. Seizure
11. Weakness, paralysis, paresis, and loss of motion
12. Stroke
13. Altered mental status

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: Musculoskeletal/Neurological Systems |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

At the conclusion of the course (thirteen individual clinical presentation modules), the course director will oversee the development of a narrative evaluation of the student, incorporating an assessment of accomplishments in the areas of skills, attitudes, and behaviors, and synthesizing commentary from small group discussion leaders, laboratory instructors, and college masters.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. This will require a relatively large number of faculty participants, but their individual time commitments will be correspondingly reduced. There should be an adequate number of clinical instructors. We anticipate having a sufficient number of basic science faculty members in the various disciplines to provide basic science instruction. There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space,

laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. As a matter of quality control of the curriculum, at the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: Cardiovascular/Pulmonary Systems |
| **Sponsoring department or unit:** | Internal Medicine<br>Medical Education |
| **Name of course director:** | Juan Figueroa, MD / To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Internal Medicine (Cardiology, Pulmonary and Critical Care, General) | 8 |
| Family Medicine | 4 |
| Pediatrics | 2 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

Each of the 14 component clinical presentation modules has been developed with specific written educational objectives, both clinical and basic-science-related. These objectives are included in the syllabus that accompanies the module. They are available for review on site.

Briefly summarize the objectives/content areas covered in the course.

This course is designed to provide instruction in the relationships of the cardiac and pulmonary systems and to begin to develop concepts of hemodynamics, the cardiac cycle, and blood gas equilibria. The course will call on many of the concepts first introduced in the previous sections, especially the one concerning the gastrointestinal and hematic systems. To provide instruction in these and related concepts, a total of 14 clinical presentation modules have been grouped together. Clinical elements of these presentations will be featured, but there will also be emphasis on the underlying basic science principles.

The student will need to have an understanding of basic science principles to comprehend the list of causes. Thus, each clinical presentation will include a set of basic science learning objectives related to the appropriate scientific concepts of anatomy, biochemistry, physiology, genetics,

immunology, microbiology, pharmacology, and pathology. In particular, the learning objectives related to molecular and cellular biology listed above will be emphasized.

The Clinical Presentation Modules include:

1. Abnormal blood pressure
2. Pulse abnormalities
3. Palpitations
4. Chest discomfort and pain
5. Abnormal heart sounds
6. Syncope
7. Cardiac and respiratory arrest
8. Dyspnea
9. Cyanosis and hypoxia
10. Wheezing
11. Cough
12. Hemoptysis
13. Pleural abnormalities
14. Preoperative assessment, cardiopulmonary components

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

> Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

> The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: Cardiovascular/Pulmonary Systems |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

A narrative evaluation will be prepared for each student at the conclusion of the course. This will be supervised by the course director, but it will include input from all faculty members who have had substantial interaction with the student, including small group leaders, laboratory instructors, and college masters.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. There is an adequate number of clinical faculty to provide instruction. We anticipate the recruitment of sufficient basic science medical educators to provide the basic science instruction.

There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. As

a matter of quality control of the curriculum, at the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: Integration of Concepts I |
| **Sponsoring department or unit:** | Family Medicine<br>Medical Education |
| **Name of course director(s):** | Ulysses Urquidi, MD / To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Family Medicine | 4 |
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Emergency Medicine | 4 |
| Internal Medicine (General, Cardiology, Pulmonary and Critical Care, Gastroenterology | 4 |
| General Surgery | 4 |
| Neurology | 2 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

Briefly summarize the objectives/content areas covered in the course.

This course is intended to provide integration of topics covered in previous courses while providing information about related topics which do not fit conveniently into the systemic units of the program. These topics are focused on traumatic injury to the systems previously covered.

Topics to be included are:

1. Trauma and accidents
2. Abdominal injuries
3. Chest injuries
4. Hand and wrist injuries
5. Hypothermia
6. Nerve injury

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: Integration of Concepts I |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. There is an adequate number of faculty to provide instruction, drawn from both the basic science and clinical faculty. There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. As a matter of quality control of the curriculum, at the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Masters' Colloquium |
| **Sponsoring department or unit:** | College Masters |
| **Name of course director:** | Harry "Pete" Davis, MD |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

Briefly summarize the objectives/content areas covered in the course.

This course extends through the first two years of the curriculum and serves as the cohesive center of the curriculum. College Masters assist in identifying and clarifying obscurities within the presentations. The masters also provide the first line of student evaluation and possible intervention. At the same time, the course provides instruction in many of the skills and attributes that could be described as the "art of medicine". Diverse teaching methods will be employed in this course. Among the topics that will be covered in the Masters' Colloquia are current controversies in medicine. The format of this element of the course will be to select controversies that are related to the clinical presentation(s) under discussion in the SPOM course. Students will be asked to consider and collect peer-reviewed information related to both sides of the controversy. A subsequent group discussion will be organized around a debate on the issue in which the discussants argue either side of the issue.

Course objectives are tied directly to the institutional objectives and the related outcome measures as described in Section II (Educational Program), Statements ED-1 and ED-1A, respectively. These correlations are shown below (e.g. K-1 refers to institutional educational objective 1 in the section concerning knowledge). Course objectives include:

1. To identify and apply the ethical principles of medicine so as to incorporate them into one's professional life. (K-12, B-5)
2. To develop the skills and behaviors associated with critical thinking (K-1, K-3, K-4, S-6)
3. To learn the concepts of evidence-based medicine and to put those concepts in practice in the learning process (K-2, K-3, B-1)
4. To identify and integrate the various disciplines of biology and medicine (K-4, K-5)

5. To identify the controversies of modern medicine, both scientific and social, and to apply an evidentiary approach to addressing these controversies (K-10)
6. To know the social and economic components of health care and their implications for the physician and the physician-patient relationship (K-9, K-10, K-11)
7. To expand the fund of knowledge introduced in the clinical presentations modules (K-5, K-6, K-7, S-6, S-8)

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine. College Masters will meet weekly to ensure that each is using a similar lesson plan with the same educational objectives.

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Masters' Colloquium |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | | Laboratory practical items |
| | Fill-in, short answer questions | √ | Problem-solving exercises |
| √ | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | √ | Other (describe) |

"Other" evaluation methods will include performance in classroom debates described above, topical essays, and formal manuscripts.

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Formative evaluations are held on a weekly basis during the first two years, and while the main focus of these evaluations will be the materials presented in the SPOM course, material from the Masters' Colloquium will also be included in the evaluation.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

The College Masters will provide a narrative evaluation for each student at a time that corresponds to the conclusion of each of the Scientific Principles of Medicine courses. College masters may also contribute to the collective narrative evaluations supervised by individual course directors in the SPOM courses.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The curriculum has been designed around the concept of the Medical Student College and the College Master. We are actively recruiting two full-time college masters for each college: a basic scientist and a clinician. The newly constructed Medical Education Building will include four areas designated as space for the colleges that will include teaching and office space to accommodate the various needs anticipated for this format. The entire focus of the college masters will be the college, the students assigned to the college, and the instruction, evaluation, and advisement associated with college activities.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Medical Skills |
| **Sponsoring department or unit:** | Faculty Affairs and Development |
| **Name of course director:** | Hoi Ho, MD |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Internal Medicine | 10 |
| Family Medicine | 10 |
| Emergency Medicine | 10 |
| Pediatrics | 10 |
| Obstetrics/Gynecology | 10 |

**Course Objectives**

Are there written objectives for the course? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

Briefly summarize the objectives/content areas covered in the course.

This is a two-year course, taught in a complementary fashion with the component courses of the Scientific Principles of Medicine, and designed to instruct the student in basic medical skills including history-taking, physical assessment, and performance of simple procedures. Learning objectives include:

1. To demonstrate methods of establishing patient confidence and ease
2. To elicit a cohesive chief complaint
3. To understand and use effectively the various components of the history, including family history, social history, employment and occupational history, and past medical history
4. To obtain and organize a comprehensive history based upon investigation of the chief complaint
5. To obtain and organize a focused history based upon a single system or complaint
6. To perform the individual maneuvers of a systematic physical assessment
7. To perform a complete physical assessment
8. To perform a focused physical assessment targeted to a specific complaint or symptom
9. To report an organized synthesis in both oral and written forms of the findings of a comprehensive history and physical assessment

10. To report an organized synthesis in both oral and written forms of the findings of a focused history and physical assessment
11. To construct a working differential diagnosis based upon the history and physical assessment
12. To develop a diagnostic and/or therapeutic plan based upon a synthesis of the history, physical assessment, and diagnostic considerations
13. To explain the uses or indications for common procedures including venipuncture, introduction of tubes and catheters, lumbar puncture, and suturing
14. To demonstrate the correct performance of common procedures

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

In this course, students will be taught in groups of 4, often using the examination rooms in the clinical simulation laboratory. Thus, there will be expanded needs for instructors teaching history-taking and physical assessment skills. These additional instructors will be drawn from senior residents in primary care specialties as well as specialties that use focused or alternative skills (e.g. Pediatrics and Obstetrics/Gynecology). To prepare for the course, both faculty members and residents will be required to participate in the clinical skills laboratory training course which has been developed and offered by the Associate Dean for Faculty Affairs. This course will involve training in the use of standardized patients and clinical simulators. In addition, preceding the beginning of each SPOM course, the instructors participating in that course will be convened in the clinical skills laboratory to review the learning objectives for the medical skills element related to the SPOM topic and to standardize teaching methods and techniques. During the course, a course supervisor will rotate from group to group in order to observe teaching techniques and compliance with the stated learning objectives.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine.

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Medical Skills |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| | Fill-in, short answer questions | | Problem-solving exercises |
| | Essay questions or papers | | Presentations |
| | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | √ | Other (describe) |

This course focuses on the attainment of skills including history-taking, physical assessment, and specific procedures. Thus, the measurable outcomes are most easily assessed by demonstration of these skills. History-taking and physical assessment will be evaluated through direct observation of performance with real and standardized patients and by audiovisual recordings of these activities. Procedure skills will be evaluated with the use of clinical simulators and direct observation.

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in weekly formative evaluations that cover the information presented during that week, including medical skills. The formative evaluations will emphasize information from the SPOM course, but practical quizzes or clinical demonstrations of medical skills will also be included.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

The course director will supervise the preparation of narrative evaluation of individual students at the time of conclusion of each SPOM course, to be incorporated into the narrative evaluation for the SPOM course . Primary responsibility for the narrative comments will be with the individual small group leaders, but the group leaders will meet to discuss the process in an effort to "standardize" the process and the commentary.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel)

One of the outstanding design features of the new Medical Education Building is the clinical simulation laboratory. This facility will include twelve examination rooms designed to simulate a clinical examination room and with communications and video capabilities. These facilities are supported by space designed specifically for standardized patients, including changing rooms, waiting areas, and a debriefing room. A small conference room is available for student instruction, and a simulator facility will contain a number of organ- or procedure-specific

simulators. We hope to have in place by the time of matriculation of the charter class a programmable simulator manikin and the support staff required to make it operational.

This course is one of the most teaching-intensive courses in the entire curriculum and requires more instructors than we can easily draw from our clinical departments. We will thus call upon volunteer faculty and senior residents from the primary care specialties to assist in instruction, but we will make efforts to enlist only those individuals with demonstrated teaching skills, interest in teaching in this course, willingness to participate in teacher training, and time to participate. Individual group monitoring will be an important element of course evaluation along with student evaluation and assessment of student proficiency.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Society, Community, and the Individual |
| **Sponsoring department or unit:** | Office of Border Health |
| **Name of course director:** | J. Manuel de la Rosa, MD |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Medical Education | 8 |
| Family Medicine | 4 |
| Public health adjunct faculty | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

Briefly summarize the objectives/content areas covered in the course.

This is a two-year course that integrates concepts of population dynamics, biostatistics and epidemiology, and public health with community needs, community health, healthcare access, and ultimately the healthcare and healthcare needs of the individual. This integration will be accomplished through a staged progression from the classroom to the community and finally to the clinic. We will utilize our Community Partnership clinics and their associated communities to provide this transition.

Educational objectives for this course include:

1. To define and use the key measures in epidemiology including incidence, prevalence, death rate, etc.
2. To understand the concepts of variability and bias and to apply determinants of central tendency and difference including mean, standard deviation, standard error, and statistical tests for comparability
3. To understand the principles of evidence-based practice
4. To compare the methodology, interpretation, and strength of various study designs including case studies, clinical trials, cohort, and case-control studies
5. To explain the epidemiologic principles associated with such public health concerns as medical surveillance and disease outbreak
6. To understand the role of epidemiology in the study of genetic disorders

7. To understand and employ techniques to recruit community participation
8. To understand and use the methods for community needs assessment
9. To describe the relationships of community resources, healthcare access, and community environment to individual healthcare issues
10. To develop and implement a plan of corrective action for identified community needs
11. To assess the effectiveness of a community action plan
12. To provide direct patient care in the framework of the community

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine. Preceptors at the four clinic sites used for this course will all be full-time members of the Department of Family Medicine and will meet on a weekly basis to ensure a common application of written educational objectives.

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Society, Community, and the Individual |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| | Multiple-choice, true/false, matching questions | | Laboratory practical items |
| | Fill-in, short answer questions | | Problem-solving exercises |
| √ | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| | OSCE or standardized patient exam | √ | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

This course is taught concurrently with the SPOM courses and will be a part of the weekly formative evaluations during the first two years. Information from the course will be included in the formative evaluation. In addition, there will be periodic formative evaluations in the form of oral exams and presentations in the community to assess the student's activities and accomplishments within the community.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

Full-time faculty preceptors in the clinics as well as instructors in the didactic components of the course will contribute commentary for the narrative evaluation to be provided at the conclusion of each of the SPOM courses.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The success of this course is dependent upon the student's participation and ability to participate in the community and the community clinic. We have long-established working relationships with four rural communities in the eastern part of El Paso County. We have worked with community leaders and provided training for community health workers active in these communities. We will depend upon the cooperation and participation of these individuals for the community component of this course.

The participating clinics are part of the Department of Family Medicine They have strong faculty members who will serve as preceptors and a large and varied patient population. These clinics will meet the needs of the charter class. As we increase class size, we will need to utilize additional clinics and surrounding communities. We have begun to address these future needs.

PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: Renal/Endocrine Systems |
| **Sponsoring department or unit:** | Internal Medicine<br>Medical Education |
| **Name of course director:** | German Hernandez, MD / To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Internal Medicine (General, Nephrology, Endocrinology) | 8 |
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Pediatrics | 4 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

There are written objectives for each of the 15 clinical presentation modules that constitute the course. These written objectives are included in the course syllabus of each of the modules and are available for review on site.

Briefly summarize the objectives/content areas covered in the course.

This course focuses fluids, electrolytes, homeostatic mechanisms, and the role of the kidney in the process of regulation. The course also deals with glucose, lipids, intermediary metabolism of these entities, and the disease processes associated with their abnormalities. Other endocrine disorders and their anatomic and patho-physiologic bases will also be considered. The sequence of these clinical presentations has been structured so that the concepts developed during the study of one topic provide a foundation for the subsequent topic. As with the other courses in the SPOM sequence, basic information will be provided for each clinical presentation including a brief definition, a statement of its clinical significance, and a list of the potential causes for the presentation. The major clinical emphasis will be on adult conditions, but pediatric renal and endocrine conditions will also be presented.

Instruction in the related basic sciences will enable the student to understand better the clinical presentation. Gross and microscopic anatomy will be integrated with the gross and microscopic anatomical pathology of the renal and endocrine system and will also be correlated with radiographic anatomy. Renal and endocrine systems will be emphasized as model homeostatic

systems. This will require basic science presentations in related biochemistry and physiology. Microbiological and immunological aspects of these organ systems will also be considered. Management concerns including appropriate pharmacology will also be considered.

The 15 clinical presentation modules that will serve as the framework for the course include:

1. Edema, anasarca, and ascites
2. Abnormal serum sodium concentration
3. Abnormal serum potassium concentration
4. Abnormal serum hydrogen ion concentration
5. Abnormal serum concentrations of calcium, phosphate, and magnesium
6. Urinary frequency
7. Hypertension
8. Abnormal serum glucose
9. Abnormal serum lipids
10. Proteinuria
11. Hematuria
12. Urinary obstruction
13. Renal failure
14. Neck mass and goiter
15. Abnormal stature

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

> Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

> The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: Renal/Endocrine Systems |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

A narrative evaluation for each student is produced at the conclusion of the course. This evaluation is supervised by the course director, but major contributions to the evaluation are expected from small group discussion leaders and laboratory instructors. College masters will participate as they do in every course of the SPOM series, and they will provide information for the evaluation.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. There is an adequate number of clinical faculty to provide instruction. We are actively recruiting basic science medical education faculty members in all of the traditional disciplines to provide the basic science component of the course.

There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. As a matter of quality control of the curriculum, at the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: Reproduction |
| **Sponsoring department or unit:** | Obstetrics/Gynecology<br>Medical Education |
| **Name of course director(s):** | Claudia Suarez. MD / To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Obstetrics/Gynecology | 4 |
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| General Surgery | 4 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

There are 13 individual clinical presentation modules that constitute the course. Each of these modules has written clinical and basic science educational objectives that are included in the syllabus devoted to the module. These educational objectives are available for review on site.

Briefly summarize the objectives/content areas covered in the course.

This course will focus on reproduction, pregnancy, and illnesses associated with the female genital tract and the breast. The sequence of these clinical presentations has been structured so that the concepts developed during the study of one topic provide a foundation for subsequent topics. Students will be provided with a brief definition and a statement of clinical significance for each clinical presentation. This will serve as the foundation for presentations of both clinical and basic science information. Gross, microscopic, and radiographic normal and abnormal anatomy will be presented in laboratory and small group discussions. Additional basic science learning objectives will be covered as well. The 13 clinical presentation modules include:

1. Abnormal menstrual cycle, including amenorrhea, dysmenorrheal and the pre-menstrual syndrome, oligomenorrhea, and abnormal genital tract bleeding
2. Pregnancy including ante-partum care, the intra-partum, and post-partum care, obstetrical emergencies, and pregnancy-associated hypertension
3. Loss of pregnancy

4. Infertility
5. Contraception
6. Menopause
7. Uterine prolapse and pelvic relaxation
8. Disorders of the breast including masses, pain, abnormal discharge, and galactorrhea
9. Cancer screening, detection, and prevention
10. Vaginal discharge, sexually transmitted diseases, and vulvar lesions
11. Vaginal bleeding
12. Pelvic mass
13. Pelvic pain, both acute and chronic

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: Reproduction |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

A narrative evaluation is submitted at the end of the course and represents a synthesis of information from those instructors with extended contact with the student(s) including small group discussion leaders, laboratory instructors, and college masters.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. Some clinical faculty members, especially those from Obstetrics/Gynecology and Surgery will have greater teaching responsibilities. We have sufficient faculty, and we are recruiting additional faculty members in these disciplines. We are also actively recruiting basic science medical educators in all of the major basic science disciplines. We anticipate having adequate numbers of these individuals to continue refinement of the curriculum before the charter class is admitted and to provide instruction.

There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. As a matter of quality control of the curriculum, at the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: The Mind and Human Development |
| **Sponsoring department or unit:** | Pediatrics<br>Medical Education |
| **Name of course director(s):** | Namrata Singh, MD / To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Pediatrics (General, Neonatology, Developmental, Psychiatry) | 8 |
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Obstetrics/Gynecology | 4 |
| Psychiatry | 4 |
| Neurology | 4 |
| Urology | 1 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

This course is consists of 25 separate clinical presentation modules. Each module has its own set of written educational objectives. These written objectives are incorporated into the syllabus that accompanies each module. All of these written objectives are available for review on site.

Briefly summarize the objectives/content areas covered in the course.

This is a complex course that will include a wide range of topics. The course spans the life cycle beginning with birth and infancy and concluding with the dying patient. In the interval, the course deals with the individual and family, social issues impacting health, and behavioral and thought disorders that lead to illness or dysfunction. The topics are developed in three separate but overlapping components, and include the following clinical presentations grouped thematically:

Infant and Childhood Development

1. Fetal distress
2. Prematurity

3. Depressed newborn
4. Sudden infant death syndrome
5. Pediatric emergencies
6. Attention deficit/hyperactivity in children
7. Developmental disorders
8. Failure to thrive
9. Incontinence of urine and stool

Family

10. Family violence including child abuse, self-inflicted injury, elder abuse, rape and violence against women, and spousal and adult abuse
11. Scrotal mass
12. Scrotal pain

Human Behavior

13. Sleep disorders
14. Fatigue
15. Falls
16. Oral disorders
17. Sexually concerned patient and gender identity disorder
18. Impotence and Sexual dysfunction
19. Panic and anxiety
20. Mood disorders
21. Personality disorders
22. Substance abuse and drug addiction
23. Suicidal behavior and prevention
24. Psychosis and disordered thought

Death and Dying

25. Death, the dying patient, and bereavement

Each major component of the course will be overseen by a course director from the pertinent clinical discipline, including pediatrics and psychiatry or by shared directorship for topics associated with the family. With some exceptions, individual clinical presentations are closely related to those that precede and follow. Each clinical presentation will be introduced by a brief definition and a statement of its clinical significance along with a list of potential causes. Both clinical and basic science educational learning objectives will be tied to this introductory information. Basic science information including anatomy (including gross, microscopic, and radiographic components), biochemistry, physiology, genetics, immunology, microbiology, pharmacology, and pathology will be developed by basic science faculty using lectures,

laboratories, computer exercises, and small group discussions as instructional modalities. Clinical information will be conveyed in small group discussions that center on illustrative case studies.

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: The Mind and Human Development |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

A narrative evaluation for each student is submitted at the conclusion of the course. The development of this narrative is supervised by the course directors but incorporates commentary from faculty members participating in the course who have sufficient contact with the student to provide a reasonable assessment of the student.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

This course will be offered during the second year of the curriculum.The course is taught as an interdisciplinary course drawing faculty from a number of departments. Because of the complexity of the course, there will be a relatively large number of faculty members drawn from a number of disciplines, both clinical and basic science, who are asked to participate. We believe that there are sufficient clinicians available to provide their component of the curriculum. We have begun active recruitment of basic science medical educators in the traditional basic science disciplines. We anticipate that we will have a full complement of medical educators in time to

refine the curriculum, prepare educational materials and to provide active instruction when the charter class reaches the second year.

There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. As a matter of quality control of the curriculum, at the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: Dermal Conditions and the Senses |
| **Sponsoring department or unit:** | Medical Education |
| **Name of course director:** | To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Internal Medicine (General, Dermatology) | 4 |
| General Surgery | 2 |
| Neurology | 2 |
| Ophthalmology | 2 |
| Otorhinolaryngology | 2 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

The course consists of 15 clinical presentation modules, each of which has its own set of written educational objectives, including clinical, basic science, and behavioral science objectives. These objectives will be provided to students in the syllabus for each module and are available for review on site.

Briefly summarize the objectives/content areas covered in the course.

Content of this course is concentrated in the areas of disorders and abnormalities of the skin and of the organs associated with the special senses. Each clinical presentation will include a brief definition, a statement of clinical significance and a schematic representation of potential causes. There will also be basic science learning objectives related to the appropriate scientific concepts of anatomy (including gross, microscopic, and radiographic components), biochemistry, physiology, genetics, immunology, microbiology, pharmacology, and pathology.

Content areas to be covered include:

1. Alopecia and disorders of the nails
2. Burns

3. Skin rash: Macules
4. Skin rash: Papules
5. Skin ulcers and skin tumors (benign and malignant)
6. Eye redness
7. Abnormalities of the pupil
8. Diplopia
9. Strabismus and amblyopia
10. Acute visual disturbance and loss
11. Hearing loss and deafness
12. Tinnitus
13. Dizziness and vertigo
14. Hoarseness, dysphonia, and difficulties of speech and language
15. Disorders of smell and taste

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

> Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

> The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: Dermal Conditions and the Senses |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

A narrative evaluation will be an essential component of the student evaluation at the end of the course. This will be separate from the course grade developed from the summative evaluation.

Course Outcomes/Evaluation

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. We are actively recruiting basic science medical educators and clinicians with interests in medical education. We anticipate that there will be sufficient numbers of faculty to offer this course during the second year offerings for the charter class.

There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. At the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Scientific Principles of Medicine: Integration of Concepts II |
| **Sponsoring department or unit:** | Emergency Medicine<br>Medical Education |
| **Name of course director:** | Patty Crocker, MD / To Be Named |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Emergency Medicine | 4 |
| Medical Education (Anatomy, Biochemistry, Cell Biology, Physiology, Pharmacology, Microbiology) | 8 |
| Internal Medicine | 4 |
| Pathology | 4 |
| Radiology | 1 |
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

There are 6 clinical presentation modules in this course, each with its own set of written educational objectives. These objectives will be included in the course syllabus and will be available for review on site.

Briefly summarize the objectives/content areas covered in the course.

The content of this course is intended to provide integration of topics covered in second year's previous courses while covering related topics which do not fit conveniently into the systemic units of the program. These clinical presentation modules are focused on traumatic injury or environmentally related injury. Content of the course includes:

1. Animal and insect bites
2. Head trauma and brain death
3. Drowning and near drowning
4. Poisoning
5. Skin wounds and regional anesthesia
6. Spinal trauma

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine.

*For additional information about individual course structure within the Scientific Principles of Medicine series, see Section II: ED-5 and ED-11.*

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Scientific Principles of Medicine: Integration of Concepts II |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| √ | Fill-in, short answer questions | √ | Problem-solving exercises |
| | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in a weekly formative evaluation during the first two years. This evaluation takes place on Friday at the conclusion of the week's program of instruction and covers the material covered during the week. The formative evaluation will include a synthesis of all concurrent courses (Masters' Colloquium, Medical Skills, and Society, Community, and the Individual), and evaluation formats will vary, including written and oral items, laboratory and clinical simulator demonstrations, and anatomical demonstrations. The evaluations will be scored over the weekend. The college masters will review this evaluation Monday morning at the beginning of the week's program of instruction and provide a brief summation of the information covered in the examination. This exercise will also afford the college master information about individual student performance to aid in academic advisement.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

A written narrative evaluation will be submitted at the conclusion of the course and external to the course grade. This narrative will be developed under the direction of the course director but with input from other participating faculty members.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The course is taught as an interdisciplinary course drawing faculty from a number of departments. There is an adequate number of clinical faculty to provide instruction. We are actively recruiting basic science faculty members and should have sufficient numbers in all of the key basic science disciplines to provide instructors for this course at the end of the second year.

There is a diversity of teaching space available for the course, including a sufficient number of small classrooms, lecture space, laboratories, clinical simulation laboratories, and gross anatomy dissection space. Computers, computer software, library resources, and the personnel needed to support computer-based and library-based instruction are adequate to meet the teaching needs. At the conclusion of the course we plan to ask participating faculty and students to evaluate the adequacy of space, faculty numbers and quality, and support.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Masters' Colloquium (Year Two) |
| **Sponsoring department or unit:** | College Masters |
| **Name of course director:** | Harry "Pete" Davis, MD |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| College Masters | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

Briefly summarize the objectives/content areas covered in the course.

Please note that this is a continuation of a course begun in the first year. The course objectives and evaluation methods remain the same.

This course extends through the first two years of the curriculum and serves as the cohesive center of the curriculum. College Masters assist in identifying and clarifying obscurities within the presentations. The masters also provide the first line of student evaluation and possible intervention. At the same time, the course provides instruction in many of the skills and attributes that could be described as the "art of medicine". Diverse teaching methods will be employed in this course. Among the topics that will be covered in the Masters' Colloquia are current controversies in medicine. The format of this element of the course will be to select controversies that are related to the clinical presentation(s) under discussion in the SPOM course. Students will be asked to consider and collect peer-reviewed information related to both sides of the controversy. A subsequent group discussion will be organized around a debate on the issue in which the discussants argue either side of the issue.

Course objectives are tied directly to the institutional objectives and the related outcome measures as described in Section II (Educational Program), Statements ED-1 and ED-1A, respectively. These correlations are shown below (e.g. K-1 refers to institutional educational objective 1 in the section concerning knowledge). Course objectives include:

8. To identify and apply the ethical principles of medicine so as to incorporate them into one's professional life. (K-12, B-5)
9. To develop the skills and behaviors associated with critical thinking (K-1, K-3, K-4, S-6)
10. To learn the concepts of evidence-based medicine and to put those concepts in practice in the learning process (K-2, K-3, B-1)
11. To identify and integrate the various disciplines of biology and medicine (K-4, K-5)

12. To identify the controversies of modern medicine, both scientific and social, and to apply an evidentiary approach to addressing these controversies (K-10)
13. To know the social and economic components of health care and their implications for the physician and the physician-patient relationship (K-9, K-10, K-11)
14. To expand the fund of knowledge introduced in the clinical presentations modules (K-5, K-6, K-7, S-6, S-8)

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine. College Masters will meet weekly to ensure that each is using a similar lesson plan with the same educational objectives.

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Masters' Colloquium (Year Two) |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| √ | Multiple-choice, true/false, matching questions | | Laboratory practical items |
| | Fill-in, short answer questions | √ | Problem-solving exercises |
| √ | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | √ | Other (describe) |

"Other" evaluation methods will include performance in classroom debates described above, topical essays, and formal manuscripts.

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Formative evaluations are held on a weekly basis during the first two years, and while the main focus of these evaluations will be the materials presented in the SPOM course, material from the Masters' Colloquium will also be included in the evaluation.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

The College Masters will provide a narrative evaluation for each student at a time that corresponds to the conclusion of each of the Scientific Principles of Medicine courses. College masters may also contribute to the collective narrative evaluations supervised by individual course directors in the SPOM courses.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The curriculum has been designed around the concept of the Medical Student College and the College Master. We are actively recruiting two full-time college masters for each college: a basic scientist and a clinician. The newly constructed Medical Education Building will include four areas designated as space for the colleges that will include teaching and office space to accommodate the various needs anticipated for this format. The entire focus of the college masters will be the college, the students assigned to the college, and the instruction, evaluation, and advisement associated with college activities.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Medical Skills (Year Two) |
| **Sponsoring department or unit:** | Faculty Affairs and Development |
| **Name of course director:** | Hoi Ho, MD |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Internal Medicine | 10 |
| Family Medicine | 10 |
| Emergency Medicine | 10 |
| Pediatrics | 10 |
| Obstetrics/Gynecology | 10 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

Briefly summarize the objectives/content areas covered in the course.

Please note that this is a continuation of a course begun in the first year. The course objectives and evaluation methods remain the same.

This is a two-year course, taught in a complementary fashion with the component courses of the Scientific Principles of Medicine, and designed to instruct the student in basic medical skills including history-taking, physical assessment, and performance of simple procedures. Learning objectives include:

15. To demonstrate methods of establishing patient confidence and ease
16. To elicit a cohesive chief complaint
17. To understand and use effectively the various components of the history, including family history, social history, employment and occupational history, and past medical history
18. To obtain and organize a comprehensive history based upon investigation of the chief complaint
19. To obtain and organize a focused history based upon a single system or complaint
20. To perform the individual maneuvers of a systematic physical assessment
21. To perform a complete physical assessment
22. To perform a focused physical assessment targeted to a specific complaint or symptom

23. To report an organized synthesis in both oral and written forms of the findings of a comprehensive history and physical assessment
24. To report an organized synthesis in both oral and written forms of the findings of a focused history and physical assessment
25. To construct a working differential diagnosis based upon the history and physical assessment
26. To develop a diagnostic and/or therapeutic plan based upon a synthesis of the history, physical assessment, and diagnostic considerations
27. To explain the uses or indications for common procedures including venipuncture, introduction of tubes and catheters, lumbar puncture, and suturing
28. To demonstrate the correct performance of common procedures

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

> In this course, students will be taught in groups of 4, often using the examination rooms in the clinical simulation laboratory. Thus, there will be expanded needs for instructors teaching history-taking and physical assessment skills. These additional instructors will be drawn from senior residents in primary care specialties as well as specialties that use focused or alternative skills (e.g. Pediatrics and Obstetrics/Gynecology). To prepare for the course, both faculty members and residents will be required to participate in the clinical skills laboratory training course which has been developed and offered by the Associate Dean for Faculty Affairs. This course will involve training in the use of standardized patients and clinical simulators. In addition, preceding the beginning of each SPOM course, the instructors participating in that course will be convened in the clinical skills laboratory to review the learning objectives for the medical skills element related to the SPOM topic and to standardize teaching methods and techniques. During the course, a course supervisor will rotate from group to group in order to observe teaching techniques and compliance with the stated learning objectives.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

> The course will be taught at only one site, the campus of the El Paso School of Medicine.

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Medical Skills (Year Two) |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| | Multiple-choice, true/false, matching questions | √ | Laboratory practical items |
| | Fill-in, short answer questions | | Problem-solving exercises |
| | Essay questions or papers | | Presentations |
| | Oral exams | √ | Preceptor ratings |
| √ | OSCE or standardized patient exam | √ | Other (describe) |

This course focuses on the attainment of skills including history-taking, physical assessment, and specific procedures. Thus, the measurable outcomes are most easily assessed by demonstration of these skills. History-taking and physical assessment will be evaluated through direct observation of performance with real and standardized patients and by audiovisual recordings of these activities. Procedure skills will be evaluated with the use of clinical simulators and direct observation.

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

Students participate in weekly formative evaluations that cover the information presented during that week, including medical skills. The formative evaluations will emphasize information from the SPOM course, but practical quizzes or clinical demonstrations of medical skills will also be included.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

The course director will supervise the preparation of narrative evaluation of individual students at the time of conclusion of each SPOM course, to be incorporated into the narrative evaluation for the SPOM course . Primary responsibility for the narrative comments will be with the individual small group leaders, but the group leaders will meet to discuss the process in an effort to "standardize" the process and the commentary.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel)

One of the outstanding design features of the new Medical Education Building is the clinical simulation laboratory. This facility will include twelve examination rooms designed to simulate a clinical examination room and with communications and video capabilities. These facilities are supported by space designed specifically for standardized patients, including changing rooms, waiting areas, and a debriefing room. A small conference room is available for student instruction, and a simulator facility will contain a number of organ- or procedure-specific

simulators. We hope to have in place by the time of matriculation of the charter class a programmable simulator manikin and the support staff required to make it operational.

This course is one of the most teaching-intensive courses in the entire curriculum and requires more instructors than we can easily draw from our clinical departments. We will thus call upon volunteer faculty and senior residents from the primary care specialties to assist in instruction, but we will make efforts to enlist only those individuals with demonstrated teaching skills, interest in teaching in this course, willingness to participate in teacher training, and time to participate. Individual group monitoring will be an important element of course evaluation along with student evaluation and assessment of student proficiency.

## PART B. REQUIRED COURSE FORM

| | |
|---|---|
| **Course title:** | Society, Community, and the Individual (Year Two) |
| **Sponsoring department or unit:** | Office of Border Health |
| **Name of course director:** | J. Manuel de la Rosa, MD |

List all organizational units (e.g., physiology department, nursing school, library), including the lead department, with ongoing involvement in the course, and the number of instructional staff from each such unit:

| Organizational Unit | Number of Teaching Staff Involved |
|---|---|
| Medical Education | 8 |
| Family Medicine | 4 |
| Public health adjunct faculty | 4 |

**Course Objectives**

Are there written objectives for the course? (check)

| Yes | √ | No | |
|---|---|---|---|

Briefly summarize the objectives/content areas covered in the course.

Please note that this is a continuation of a course begun in the first year. The course objectives and evaluation methods remain the same.

This is a two-year course that integrates concepts of population dynamics, biostatistics and epidemiology, and public health with community needs, community health, healthcare access, and ultimately the healthcare and healthcare needs of the individual. This integration will be accomplished through a staged progression from the classroom to the community and finally to the clinic. We will utilize our Community Partnership clinics and their associated communities to provide this transition.

Educational objectives for this course include:

13. To define and use the key measures in epidemiology including incidence, prevalence, death rate, etc.
14. To understand the concepts of variability and bias and to apply determinants of central tendency and difference including mean, standard deviation, standard error, and statistical tests for comparability
15. To understand the principles of evidence-based practice
16. To compare the methodology, interpretation, and strength of various study designs including case studies, clinical trials, cohort, and case-control studies

17. To explain the epidemiologic principles associated with such public health concerns as medical surveillance and disease outbreak
18. To understand the role of epidemiology in the study of genetic disorders
19. To understand and employ techniques to recruit community participation
20. To understand and use the methods for community needs assessment
21. To describe the relationships of community resources, healthcare access, and community environment to individual healthcare issues
22. To develop and implement a plan of corrective action for identified community needs
23. To assess the effectiveness of a community action plan
24. To provide direct patient care in the framework of the community

**Preparation for Teaching**

If graduate students, postdoctoral fellows in the biomedical sciences, or residents teach in the course (as lecturers, small group facilitators, laboratory instructors), describe how they are informed about the course objectives and prepared for their teaching role.

Graduate students, postdoctoral fellows in the biomedical sciences, and residents will not teach in this course as lecturers, small group facilitators, or laboratory instructors.

If the entire course is taught at more than one site (e.g., at geographically separate campuses), describe how faculty members at all sites are oriented to the objectives and grading system.

The course will be taught at only one site, the campus of the El Paso School of Medicine. Preceptors at the four clinic sites used for this course will all be full-time members of the Department of Family Medicine and will meet on a weekly basis to ensure a common application of written educational objectives.

**REQUIRED COURSE FORM** (Continued)

| **Course title:** | Society, Community, and the Individual (Year Two) |
|---|---|

**Student Evaluation**

Check all the formats that are used in examinations or other evaluations that students must take in order to pass the course:

| | | | |
|---|---|---|---|
| | Multiple-choice, true/false, matching questions | | Laboratory practical items |
| | Fill-in, short answer questions | | Problem-solving exercises |
| √ | Essay questions or papers | √ | Presentations |
| √ | Oral exams | √ | Preceptor ratings |
| | OSCE or standardized patient exam | √ | Other (describe) |

Briefly describe any formative assessment activities (practice exams, quizzes, etc.)

This course is taught concurrently with the SPOM courses and will be a part of the weekly formative evaluations during the first two years. Information from the course will be included in the formative evaluation. In addition, there will be periodic formative evaluations in the form of oral exams and presentations in the community to assess the student's activities and accomplishments within the community.

Is there a narrative evaluation submitted in addition to the course grade? (check)

| **Yes** | √ | **No** | |
|---|---|---|---|

Full-time faculty preceptors in the clinics as well as instructors in the didactic components of the course will contribute commentary for the narrative evaluation to be provided at the conclusion of each of the SPOM courses.

**Course Outcomes/Evaluation**

Comment on the adequacy of faculty and other resources to teach the course (e.g., educational space, computer hardware and software, support personnel).

The success of this course is dependent upon the student's participation and ability to participate in the community and the community clinic. We have long-established working relationships with four rural communities in the eastern part of El Paso County. We have worked with community leaders and provided training for community health workers active in these communities. We will depend upon the cooperation and participation of these individuals for the community component of this course.

The participating clinics are part of the Department of Family Medicine They have strong faculty members who will serve as preceptors and a large and varied patient population. These clinics will meet the needs of the charter class. As we increase class size, we will need to utilize additional clinics and surrounding communities. We have begun to address these future needs

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Directory: C:\Documents and Settings\moncastr\Desktop\lcme
Template: C:\Documents and Settings\moncastr\Application Data\Microsoft\Templates\Normal.dot
Title: REQUIRED COURSES
Subject:
Author: Darryl Williams
Keywords:
Comments:
Creation Date: 04/26/2007 8:25:00 AM
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