Michigan State University
College of Nursing
NUR 807: Clinical Decision Making
Spring 2005

Course Faculty

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Office hours with the course faculty are arranged via email appointment. Between class times/clinical conferences, use email and/or the course web site to contact us. Please do not leave telephone messages on our office telephones, as these messages may not be received by us in a timely fashion.

Diana Roush, R.N., M.S.N., Instructor, is the College of Nursing Coordinator for Student Clinical Placement. She will be involved in setting up clinical placements for your clinical practice hours. You may contact her as needed by telephone or email.
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Telephone: 517.353.8683

University Course Description

Clinical decision-making in advance practice nursing. Decision theory and related concepts. Application of critical thinking and clinical judgment to differential diagnoses of common primary care conditions.

3 credits – 2 credit seminar (Thursdays, 1:10-3 pm); 1 credit laboratory (clinical) component.

CODEC Class Locations

1220 Engineering Building, MSU campus (East Lansing section); Gaylord (Gaylord section)
Course Objectives

- Apply decision theory to formulate differential diagnoses.
- Analyze the concept of clinical diagnoses in primary care.
- Analyze relevant clinical subjective and objective cues to explain clinical diagnoses.
- Develop appropriate differential diagnoses for the common primary care conditions.
- Analyze the implications of diagnostic decisions relative to cost and efficacy within the contemporary health care delivery system.
- Document a HPI by using the problem-oriented record (POR).

Course Structure

This course was developed to reflect the need for advanced practice nurses to have a sound theoretical basis in making clinical decisions. The theoretical content of this course is also be useful for nursing students in programs of study addressing roles other than advanced clinical practice. The course will focus on the theory and application of decision-making as it applies to clinical situations that are frequently encountered by APNs in primary care. The focus of NUR 807 is on the decision making process of the advanced practice nurse. However, in the subsequent courses many of you will take in clinical management, the decision making process of the patient and family will also be addressed.

This course builds on prior course work you have taken/are taking in the MSN program and elsewhere. For example, Pathophysiology for Advanced Practice Nursing (NUR 805) provides a fundamental foundation for the development of differential diagnoses, and Concepts of Research and Evaluation for APNs (NUR 815) provides an important basis in how to evaluate the quality of evidence for clinical practice. You may find that “revisiting” the content of these and other courses will be helpful to your learning as the course progresses.

We think you will find the content in this course to be invaluable in your future practice and other roles in which you are engaged following the completion of your graduate studies. For students who plan to be APNs after graduation, NUR 807 is viewed as a “bridge” course between the theoretical core courses and clinical management courses included in the MSN program. For students who plan to be involved in other roles, the concepts and critical thinking skills taught in the course are broadly applicable to a variety of roles in which nurses are involved; e.g., education, research, etc.

Seminar

Weekly 2-hour classroom seminar sessions (Thursdays, 1:10–3 pm) broadcast on CODEC (interactive TV) from East Lansing to Gaylord will feature discussion of the key theoretical concepts in clinical decision-making, diagnostic reasoning, and differential diagnoses. Key concepts covered in seminars will be applied via case examples, which we will discuss during class. The classroom seminar is led by Celia and other faculty present at class in East Lansing and Gaylord. The goal of this content is to provide a sound theoretical base of decision-making knowledge and skills. We will interweave decision-making concepts throughout the course and apply them weekly via discussion of case studies provided by the faculty. Students are also encouraged to bring clinical examples from their work for discussion. The case study application will also emphasize differential diagnosis development.
Angel Web Site Information

The classroom setting provides a limited number of hours on content that is important to clinical decision-making. Therefore, we also use Angel web site discussions and other web-based resources as an adjunct to learning, as a means of keeping up with rapidly-changing clinical practice information, and to increase the amount of interaction/discussion between faculty and students outside the classroom. We expect students/faculty will actively participate on a weekly basis, in use of Angel and web-based resources, to share clinical cases, new information, and to ask questions that cannot be answered otherwise at Thursday class times. Throughout most weeks of the course, the faculty will be posting important announcements, assignments, clinical cases for discussion at class time, and discussing/raising additional questions about class content, in the Angel course web site.

The NUR 807 course web site is located on the MSU Angel platform. To access the course web site, go to the MSU Angel home page and type in your MSU email address (part that appears before the “@msu.edu” portion of your email address) and your MSU email password. If you are registered for the course, you will see a link for the course web site on your personal home page that opens after you’ve entered your MSU address and password. If you experience any difficulties viewing the link to the NUR 807 web site on your personal home page in Angel, contact Jennifer Kallos, Administrative Staff Assistant for Academic Affairs, at 517.432.1172. All other technical problems with use of Angel should be referred to the Angel Help Desk. The toll free Angel Help Line number is 1.800.500.1554 (North American and Hawaii), and the local campus area number is 517.355.2345.

The overall calendar that includes key dates for course activities will be posted under the Calendar tab in the Angel course web site. The tentative outline of CODEC class topics and some key dates are included at the end of this syllabus. There will be a folder under the Lessons tab in the Angel course web site for each week of the course, labeled as, “Week #1,” “Week #2,” etc. Within each week’s folder, there will usually be four key subfolders that are entitled: Week #__ Reading, Week # __ Seminar Materials, Week #__ Activities, and Week # __ Message Board. Below is an example of a weekly folder structure below—clicking on the Week #2 folder under the Lessons tab will result in the following page appearing on your computer screen:

Week #2
Decision Making Theories/Concepts (January 20-26, 2005)

Week #2 Reading
Week #2 Seminar Materials
Week #2 Activities
Week #2 Message Board
For most weeks of the course, there will be a small number of assigned readings to do prior to CODEC class that are listed within the Reading folder. Students are expected to contact the Angel Help Desk for any difficulties with accessing assigned readings or other materials posted in the Angel web site.

The Seminar Materials folder contains copies of documents, such as Powerpoint presentation handouts, to review and print out prior to coming to CODEC class each week.

The Activities folder contains clinical cases to review and print out for clinical conference sessions. It also contains information about other activities, such as key web sites to review, and additional (optional) readings that you may want to review.

The Message Board for a given week should be used for posting any class-related discussion comments and questions about course content, including continuation of discussions started but not finished in CODEC class or clinical conference. Faculty will also use the Message Boards to post announcements during the week between CODEC class/clinical conference sessions.

The first day of CODEC class for this course will occur on Thursday, January 13, 2005, and Thursday is considered to be the “first day of the week” for the purposes of the course. By Friday evening each week, you will be able to view the contents for the prior, current, and next week of NUR 807 class. For example, NUR 807 Week #1 (January 13-19, 2005) and Week #2 (January 20-26, 2005) folders will be accessible to you starting on Thursday, January 13th. On Thursday, January 20th, you will be able to view the NUR 807 Weeks #1-#3 folders. On Thursday, January 27th, you will be able to view the NUR 807 Weeks #1-#4 folders, and so forth. During a given week the course faculty may post additional materials and announcements in the course web site at any time. To avoid missing important information it is very important that you check the course web site at least several times a week for any new announcements and materials for CODEC class and/or clinical.
Laboratory Component (Clinical Activities)

This course has 1 credit (3 hours/week) designated as required clinical/lab time. The NUR 807 clinical faculty (refer to p. 1 of syllabus) are responsible for this portion of the course. Any questions about the clinical portion of the course prior to the first day of classes should be directed to Brigid (East Lansing) or Patty (Gaylord), and thereafter to the clinical faculty member for your specific clinical section. The clinical component of the course is not graded, but attendance and timely participation in the clinical activities is a requirement for passing the course. The table below summarizes information for the key laboratory/clinical credit activities.

<table>
<thead>
<tr>
<th>Clinical Activity</th>
<th>Information</th>
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<tr>
<td>Group Clinical Conference/Se minar (1 hour/week, starting on Thursday, January 20th; no clinical conference on January 13th, March 3rd, or April 28th)</td>
<td>There will be a required weekly 1-hour group clinical conference with the clinical faculty at each program site (East Lansing, Gaylord), which will start Week #2 of the course. Additional information about this component of the course will be provided by the clinical faculty during the first week of the course. Specific meeting times will be arranged with the clinical faculty at each site. There will be a variety of clinical practice assignments each week, to be arranged with the clinical faculty member at your program site. Lab-based exercises will include solving clinical puzzles, completing case studies, practicing collection of HPI and other relevant data, for which clinical faculty feedback will be provided. Students/faculty will discuss clinical implications of assigned case studies; i.e., HPI/POR documentation, differential diagnoses, and so forth. During the initial weeks of the course, you will be asked to pair up with another student to practice organized data collection. You will also participate in peer review of documentation throughout the semester.</td>
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<tr>
<td>Clinical Practice Simulation Exercises (Thursday, February 10th [2 hours] and 17th [2 hours], in addition to regularly-scheduled clinical conference time)</td>
<td>Clinical practice simulation exercises to prepare you to begin clinical practice will start approximately the middle of February. Brigid (East Lansing) and Patty (Gaylord) will contact students at each geographic site by Friday, December 3rd, regarding the specific times and locations for the Simulation Exercises to occur on Thursday, February 10th and 17th. Additional information about simulation exercises will be provided in seminar and/or clinical conference near the beginning of February. When collecting HPIs and focused aspects of the physical exam relevant to a chief complaint, you will be paired with other students. One student will be the simulation patient, the second student will be the interviewer, and the third student will be the evaluator. These roles will change each week so all students will have the opportunity to participate in each role. The clinical faculty will provide you with the simulations and will discuss the specific instructions for completing the simulations. The simulation exercises may also include computerized simulations.</td>
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<tr>
<td>Precepted Clinical Experience in a Primary Care Setting (24 hours; dates/times tba)</td>
<td>This experience that involves working with an APN in a clinical practice setting will be arranged for the second half of the semester, for starting the week of March 14th. This experience is required for students who are planning to be in clinical practice roles following graduation from the MSN program, and is optional for students who are enrolled in other programs of study (see information below for Nursing Students Enrolled in Non-Clinically Focused Programs of Study). The overall objective of this experience is to provide the student with the opportunity to engage in APN clinical data gathering skills, diagnostic reasoning, and clinical problem solving. As part of this experience, hopefully you will be able to collect HPIs from actual users of health care services being seen by you in clinic. This experience is also meant to serve as a “bridging” experience, moving students from a classroom-based learning role to an advanced clinical practice role. The specific days/times will be arranged between the student and the preceptor. The identification of preceptors will occur in collaboration with Diana Roush and the clinical faculty for NUR 807. First priority for clinical placements will occur with College of Nursing faculty as available. Additional information will be provided by the clinical faculty during the first week of the course.</td>
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Nursing Students Enrolled in Non-Clinically Focused Programs of Study

Nursing students who are enrolled in either non-clinical courses/tracks of the MSN program or the Fast Track PhD program may elect to participate in a Special Topics Seminar in place of the 24 hours of clinical shadowing experience in a primary care setting. Students who are considering the Special Topics Seminar in place of the clinical shadowing experience should consult with Celia by no later than the end of the first week of classes (by Friday, January 14, 2005) about participation in the Special Topics Seminar. Special Topics Seminar assignments will occur following Spring Break, and will include selected readings and discussion of topics that will extend the classroom seminar content, as relevant to the students’ interests and programs of study. For example, for Fast Track PhD students, assignments might focus on learning more about theoretical models of research utilization, examination of the quality of empirical evidence underpinning clinical practice guidelines, specific applications of decision-making concepts in clinical nursing research, and so forth. Assignments for the seminar will be posted in a designated link in Angel, and there will be required weekly discussion of the assignments in Angel with the course faculty.

Required Text

Dains, J.E., Baumann, L.C., & Scheibel, P. (2003). *Advanced Health Assessment and Clinical Diagnosis in Primary Care (2nd ed.)*. St. Louis: Mosby. Dains will be used primarily for the clinical/lab component of the course. You will find it very helpful both this semester and in future clinical courses.

Course Evaluation

Student course grades will be based on the following:

1. **Midterm exam** – 30% of course grade
2. **Final exam** – 40% of course grade
3. **Analysis paper on a selected screening test** – 30% of course grade
4. The **clinical/laboratory portion of the course** is not formally graded, but attendance and timely participation are required as a condition for passing the course.
5. Students are expected to be **active participants in discussions** in CODEC class, clinical conferences, and the Angel course web site. The quantity and quality of your participation will be considered in determining final course grades and can result in rounding up of a course grade that is between grades to the next higher grade.

The following scale is used to assign grades in this course:

- 93 - 100% = 4.0
- 86 - 92% = 3.5
- 80 - 85% = 3.0
- 75 - 79% = 2.5
- 70 - 74% = 2.0
- 65 – 69% = 1.5
- 60 – 64% = 1.0
- < 60% = 0.0
Questions about evaluation/grading for clinical versus theoretical aspects of the course should be directed to the appropriate faculty member. The clinical faculty will be responsible for all clinical activities feedback and for grading the clinical aspects of the midterm and final exams and course paper. Celia will be responsible for grading the theoretical aspects of the midterm and final exams and course paper. Celia will also post exam, paper, and course grades following receipt of grading input from the clinical faculty.

**Screening Test Analysis Paper**

For the analysis paper, you will select a screening test to analyze, which is commonly used for screening purposes in primary care populations. Pick a screening test, and contact Brigid, Celia, Denise, and/or Patty to discuss your idea to be sure it will be appropriate for the purposes of your paper. Near the end of February we will post some resources in the web site for thinking through your choice. Your selection of the test for your paper should be done by no later than mid-semester. By no later than March 3rd you should email Celia with your final selection of a screening test for your paper.

Here are the key elements to include in your paper, including the percentage assigned to each section for grading purposes:

**Part 1: Description of the Screening Test (35%)**
1. Identify and describe the screening test.
2. What guidelines were used to support that the test is appropriate for primary care? Include a copy of the guideline with your final paper.
3. Describe the population for which the test is appropriate, in terms of age, gender, and other characteristics that are relevant.
4. Differentiate between the use of this test for screening versus diagnostic purposes, providing clinical examples as appropriate.
5. Discuss any controversies that exist surrounding the use of the test.

**Part 2: Assessing the Screening Test (30%)**
Evaluate the test in terms of its quality and feasibility. Include reference to sensitivity, specificity, PPV, and NPV in your assessment, referring also to the implications of the population prevalence of the disease, for the population in which the screening test may be used. The cost evaluation should include how much the test would cost in your geographic area, as well as cost factors to the system and to the patient. Provide support from the literature, and remember that costs can include not only financial but other types of expenses; e.g., pain, suffering, inconvenience, and so forth.

**Part 3. Clinical Significance and Implications for Practice (25%)**
Evaluate how appropriate this test is for the primary care population. Given the pros and cons of testing that you have identified, provide rationale for why you either would or would not advocate using this test in your practice. Support your position by reference to the literature.

**Part 4. Format Considerations (10%)**
This includes use of APA format (5th ed.), organization of ideas, clarity of writing, and ability to articulate your rationale. The suggested maximum length of the text of your paper (exclusive of the title page and references) is approximately 10-15 pages double-spaced text, 10-12 point font, 1-
inch margins. Your paper should be prepared in MS Word version 1997 or higher, Rich Text, Text format, or PDF format. Please note that MS Works, Wordperfect, and word processing formats other than MS Word, Rich Text, or Text formats are not readable on College computers.

Submission your screening test analysis paper:
Your course paper is due on or before 5 pm on Thursday, April 21st. Your paper should be uploaded to the course drop box that is located in this week’s folder under the Lessons tab. Please do not provide us with printed copies of your paper or send your paper to us by email. However, you may provide Brigid or Patty with a print version of the clinical guideline you used in reference to your selected screening test.

Tentative Course Outline

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<thead>
<tr>
<th>Week of the Course</th>
<th>CODEC Seminar Content</th>
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<tbody>
<tr>
<td>Week #1 – Jan 13, 2005</td>
<td>Introduction to the course; nursing clinical judgment and its relationship to decision-making and differential diagnosis</td>
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<tr>
<td>Week #2 – Jan 20</td>
<td>Theories of decision-making and related key concepts; information processing and role of memory and competing demands; how we make decisions; basics of probability, heuristics, biases</td>
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<td></td>
<td><strong>Clinical conference sessions start this week.</strong></td>
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<tr>
<td>Week #3 – Jan 27</td>
<td>Evidence-based practice and differential diagnosis</td>
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<tr>
<td>Week #4 – Feb 3</td>
<td>Introduction to epidemiology concepts and relationship to clinical practice</td>
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<tr>
<td>Week #5 – Feb 10</td>
<td>Screening/diagnostic test characteristics: sensitivity, specificity, PPV, NPV</td>
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<td><strong>Simulation Exercises (2 hours) will start this week.</strong></td>
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<tr>
<td>Week #6 – Feb 17</td>
<td>Clinical practice guidelines and examples of case applications</td>
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<td><strong>Simulation Exercises (2 hours) will occur this week.</strong></td>
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<tr>
<td>Week #7 – Feb 24</td>
<td><strong>No CODEC broadcast between East Lansing/Gaylord.</strong> There will be on-site discussion of problem-based cases, including application of clinical guidelines and integration of key course concepts discussed to date. This will function as a review for the Midterm exam.</td>
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<tr>
<td>Week #8 – Mar 3</td>
<td><strong>Midterm exam. No CODEC broadcast between East Lansing/Gaylord.</strong></td>
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<tr>
<td>Week #9 – Mar 10</td>
<td>Spring Break—no class (no CODEC broadcast)</td>
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<tr>
<td>Week #10 – Mar 17</td>
<td>Overview of decision analysis and case applications</td>
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<td><strong>NUR 807 clinical practice experiences start the week of March 14th.</strong></td>
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<tr>
<td>Week #11 – Mar 24</td>
<td>Problem-based cases, with examples of applications of decision analysis/trees</td>
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<tr>
<td>Week #12 – Mar 31</td>
<td>Economic concepts and implications for clinical decision-making, with examples of clinical applications</td>
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<tr>
<td>Week #13 – Apr 7</td>
<td>Tom Tomlinson, PhD, MSU Center for Ethics and Humanities to lead a class discussion on ethics and decision-making</td>
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<tr>
<td>Week #14 – Apr 14</td>
<td>Case discussions, with examples of cases involving ethical aspects/dilemmas</td>
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<tr>
<td>Week #15 – Apr 21</td>
<td>Student presentations of screening test analysis papers (with peer review from classmates)</td>
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<td></td>
<td><strong>Course papers should be uploaded to Paper Drop Box in web site by 5 pm.</strong></td>
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<tr>
<td>Week #16 – Apr 28</td>
<td>Final exam. No CODEC broadcast between East Lansing/Gaylord.</td>
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1 The course schedule is subject to change without prior notice pending faculty schedules and unforeseeable events such as adverse weather conditions.