Course Faculty

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Office hours with the course faculty are arranged via email appointment. Between class times/clinical conferences, please 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 in a timely fashion.

Diana Roush, R.N., M.S.N., Instructor, is the College of Nursing Coordinator for Student Clinical Placement. You may contact her as needed by telephone or email.
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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 component.

Course Objectives

- Apply decision theory to formulate differential diagnoses. We will analyze the significance of key concepts relative to clinical judgment and decision making theory(ies) in formulating differential diagnoses.
- Analyze the concept of clinical diagnoses in primary care. We will also critique the clinical significance of using evidence-based practice and clinical care guidelines in primary care.
• **Analyze relevant clinical subjective and objective cues to explain clinical diagnoses.** We will discuss the key concepts of decision analysis and its relevant to clinical decision-making. In addition, we will analyze clinical decision-making in relation to limitations of human capacity, heuristics, and biases.

• **Develop appropriate differential diagnoses for the common primary care conditions.** We will analyze relevant subjective/objective data to develop differential diagnoses for common primary care conditions, via discussion of many “real life” primary care clinical case scenarios.

• **Analyze the implications of diagnostic decisions relative to cost and efficacy within the contemporary health care delivery system.** We will also discuss ethical issues and their impact on clinical decision-making.

• **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 may also be useful for nursing students in programs of study addressing roles other than advanced clinical practice; e.g., research, education, health care management, and so forth. 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., research, teaching, health care management, and so forth. Specific elements of the course include the following:

**Seminar**

Weekly 2-hour classroom seminar sessions (Thursdays, 1:10–3 pm) 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 seminar is co-taught by Brigid and Celia, and also includes guest speakers for some topics. 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. The Kalamazoo and East Lansing classes will be combined via CODEC (interactive TV), with faculty present at each site.

**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 [http://www.angel.msu.edu/frameIndex.htm](http://www.angel.msu.edu/frameIndex.htm) (on campus) or [https://www.angel.msu.edu/frameIndex.htm](https://www.angel.msu.edu/frameIndex.htm) (off campus). Type in your Pilot address and password. If you are registered for the course, you will see a link for the course web site on the My Profiles page that opens after you enter your Pilot address and password. The technical support information for Angel is located at [http://www.angel.msu.edu/AngelUploads/Content/HELP/_assoc/angelhelp_1/help.html](http://www.angel.msu.edu/AngelUploads/Content/HELP/_assoc/angelhelp_1/help.html) (on campus and at [https://www.angel.msu.edu/AngelUploads/Content/HELP/_assoc/angelhelp_1/help.html](https://www.angel.msu.edu/AngelUploads/Content/HELP/_assoc/angelhelp_1/help.html) (off campus). 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.

For your convenience, the course calendar will be posted under the Calendar tab in the Angel course web site. 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. For a given week of the course, new assignments and other types of suggested activities (e.g., review of key web sites, etc) will be posted in an Activities folder located under that week’s folder. In addition, you will find a list of readings for each week within each week’s folder.

The first day of class for this course is considered to be Thursday, January 15, 2004, 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 classes. For example, NUR 807 Week #1 (January 15-21, 2004) and Week #2 (January 22-28, 2004) folders will be accessible to you starting on Thursday, January 15th. On Thursday, January
22nd, you will be able to view the NUR 807 Weeks #1-#3 folders. On Thursday, January 29th, 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.

**Laboratory Component (Clinical Activities)**

This course has 1 credit (3 hours/week) designated as required clinical/lab time. The clinical faculty are responsible for this portion of the course in collaboration with Brigid and Celia. 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. **It is best to reserve the full day on Thursdays on your calendar each week for scheduled and impromptu clinical activities.**

**Group Clinical Conference/Seminar (1 hour)** - There will be a required weekly 1-hour group clinical conference with the clinical faculty at each program site (Kalamazoo, East Lansing), which will start Week #2 of the course. Additional information will be provided by Brigid and your clinical faculty member 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 practice assignments each week, to be arranged with the clinical faculty member at your program site. Lab 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.

**Other Clinical Activities (2 hours to be arranged)** - It is expected that the remaining two hours per week will be spent carrying out clinical activities, some independently. Other clinical hours will be more formally structured. Here are three required clinical activities that will be incorporated in the course. Other experiences may be incorporated during the semester as arranged with the course/clinical faculty:

- **Data Collection/Peer Review** - 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.

- **Simulation Exercises (16 hours)** – Simulation exercises will start approximately the middle of February. 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.

- **Clinical Experience in a Primary Care Setting (20 hours)** – This “shadowing” experience that involves observing/working with an APN in a clinical practice setting will be arranged for the second half of the semester. 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 observe APN clinical data gathering skills, diagnostic reasoning, and clinical problem solving. As part of this experience, hopefully you may be able to collect an HPI. This experience is also meant to serve as a “bridging” experience, moving the student from a classroom-based learning role to an advanced clinical practice role. The specific days/times will be arranged between the student and the shadowing experience preceptor. The identification of preceptors will occur in collaboration with Diana Roush. Students may identify preceptor candidates. We will be asking you to submit a one-page resume about yourself to Brigid/Diana (addressing your background, clinical experience, and clinical interests), in preparation for this experience.

**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 20 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 are strongly encouraged to consult with the course faculty in advance, and should also notify Celia and Brigid of a decision to participate in the Special Topics Seminar by no later than a week prior to midterm (by Thursday, February 26th). Assignments 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.

**Other Course Materials**

Class-specific materials will be posted in the Angel course web site. We will be posting links to selected journal articles throughout the semester, as well as suggested books, articles, web sites, and other resources that you may find helpful to your learning.

**Course Evaluation**

Student course grades will be based on the following:
1. Midterm exam – 100 points
2. Final exam – 120 points
3. Analysis paper on a selected screening test – 80 points
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 the Angel course web site. Use of Angel discussion boards and/or chat room is an expectation of all students. The message boards posted under each week’s folder under the Lessons tab can be used for asynchronous communication, and the chat room link can be used for synchronous discussions in “real time” with class members. The quality of your participation will be considered in determining final course grades and can result in rounding up of a borderline course grade to the next higher grade.

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

276-300 points = 4.0  
248-275 points = 3.5  
220-247 points = 3.0  
200-219 points = 2.5  
180-199 points = 2.0  
160-179 points = 1.5  
140-159 points = 1.0  
< 140 points = 0.0

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 and Celia to discuss, to be sure it will be appropriate for the purposes of your paper. This should be done by no later than mid-semester (Thursday, March 4th). **By March 4th, please turn in a piece of paper to Brigid that includes your name and the screening test you have selected for your paper.** Brigid and Celia will evaluate the course papers with attention to the key course content that is taught by each faculty member.

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 pages double-spaced text, 10-12 point font, 1-inch margins. Your paper should be prepared in MS Word version 1997 or higher or PDF format (MS Works, Wordperfect, and other word processing formats are not readable on College computers).

Submitting your screening test analysis paper: Your course paper is due on or before 5 pm on Thursday, April 8th. Your paper should be uploaded to the course drop box that is located in the Week #12 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 with a print version of the clinical guideline you used in reference to your selected screening test.
## Course Outline

<table>
<thead>
<tr>
<th>Week of the Course</th>
<th>Seminar Content and Faculty</th>
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<tbody>
<tr>
<td>Week #1 – January 15, 2004</td>
<td>Introduction to the course; nursing clinical judgment and its relationship to decision-making and differential diagnosis (Brigid)</td>
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<tr>
<td>Week #2 – January 22, 2004</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 (Celia)</td>
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<tr>
<td>Week #3 – January 29, 2004</td>
<td>Evidence-based practice and differential diagnosis (Brigid)</td>
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<tr>
<td>Week #4 – February 5, 2004</td>
<td>Introduction to epidemiology concepts and relationship to clinical practice (Celia)</td>
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<tr>
<td>Week #5 – February 12, 2004</td>
<td>Screening/diagnostic test characteristics: sensitivity, specificity, PPV, NPV (Celia)*</td>
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<td><strong>Simulation exercises will start approximately this week.</strong></td>
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<tr>
<td>Week #6 – February 19, 2004</td>
<td>Clinical practice guidelines and examples of case applications (Brigid)*</td>
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<tr>
<td>Week #7 – February 26, 2004</td>
<td>No CODEC broadcast between East Lansing/Kalamazoo. There will be on-site discussion of problem-based cases, including application of clinical guidelines and integration of key course concepts discussed to date (Brigid, Celia, Pam).</td>
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<tr>
<td>Week #8 – March 4, 2004</td>
<td>Midterm exam (Brigid, Celia, Pam)</td>
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<td>Week #9 – March 11, 2004</td>
<td>Spring Break—no class</td>
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<tr>
<td>Week #10 – March 18, 2004</td>
<td>Overview of decision analysis and case applications (Celia)</td>
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<tr>
<td>Week #11 – March 25, 2004</td>
<td>Problem-based cases, with examples of applications of decision analysis/trees (Brigid, Celia)</td>
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<tr>
<td>Week #12 – April 1, 2004</td>
<td>Economic concepts and implications for clinical decision-making, with examples of clinical applications (Celia)</td>
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<td>Week #13 – April 8, 2004</td>
<td>Tom Tomlinson, PhD, MSU Center for Ethics and Humanities will present/lead a class discussion on ethics and decision-making</td>
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<td>Week #14 – April 15, 2004</td>
<td>Case discussions, with examples of cases involving ethical aspects/dilemmas (Brigid, Celia)</td>
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<tr>
<td>Week #15 – April 22, 2004</td>
<td>Student presentations of screening test analysis papers (with peer review from classmates)</td>
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<tr>
<td>Week #16 – April 29, 2004</td>
<td>Final exam (Brigid, Celia, Pam)</td>
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* The content of Weeks #5 and #6 may be switched if Celia is out of town on February 12th.