

## **Cultural Competency in the Curriculum Final Report, 6-18-08**

### **Cultural Competency in the Curriculum Advisory Committee Fern R. Hauck, MD, MS, Chair**

#### **Background**

The University of Virginia School of Medicine was reaccredited for an eight-year term by the LCME (letter of accreditation, February 28, 2007). Unfortunately, the LCME found areas of "partial or substantial noncompliance" with standard ED-22. UVa needs to correct this noncompliance by a process of careful assessment, planning, and action. We must respond to the LCME by summer 2008 and therefore we need to have a plan of corrective action prepared and ready for implementation as soon as possible.

Standard ED-22 states: Medical students must learn to recognize and appropriately address gender and cultural biases in themselves and others, and in the process of health care delivery.

The objectives for clinical instruction should include student understanding of demographic influences on health care quality and effectiveness, such as racial and ethnic disparities in the diagnosis and treatment of diseases. The objectives should also address the need for self-awareness among students regarding any personal biases in their approach to health care delivery.<sup>1</sup>

LCME Findings: The institutional educational objective regarding culturally competent care and ethical issues is focused exclusively on knowledge and not on practical application in an experiential context. There is no specific teaching or evaluation of student ability to appropriately address issues of bias.

As a result, Dr. Donald Innes, Associate Dean for Curriculum, charged Dr. Fern R. Hauck, Associate Professor of Family Medicine and Public Health Sciences, with leading an assessment of the current educational activities addressing cultural competency in years 1-4 of the School of Medicine curriculum to determine the adequacy of these activities, and to propose and take action if needed and approved by the Curriculum Committee. He recommended that she organize a group of educators and students to accomplish these objectives.

The specific tasks are to:

- Briefly summarize institutional objectives for cultural competency (see the "12 Competencies" below).
- Identify all required courses or clerkships that provide instruction related to such objectives. Course objectives and content should derive from the "12 Competencies".

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<sup>1</sup> See Functions and Structure of a Medical School. Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree, Liaison Committee on Medical Education, June 2007. Available at: <http://www.lcme.org/functions2007jun.pdf>, page 16.

- Identify the methods employed to determine whether students have achieved the objectives.
- Note in particular any courses of clerkships which provide formal instruction or experiences that allow students to address gender and cultural biases in themselves and in others, and in the process of health care delivery.
- Ultimately, expanding from one or more of the 12 competencies to more directly address issues of cultural competency in detail is what is needed.

### 12 Competencies Required of the Contemporary Physician:

1. The development and practice of a set of personal and professional attributes that enable the independent performance of the responsibilities of a physician and the ability to adapt to the evolving practice of medicine. These include an attitude of:
  - a) Humanism, compassion and empathy,
  - b) Collegiality and interdisciplinary collaboration,
  - c) Continuing and lifelong self education,
  - d) Awareness of a Personal response to one's personal and profession limits,
  - e) Community and social service,
  - f) Ethical personal and professional conduct,
  - g) Legal standards and conduct,
  - h) Economic awareness in clinical practice;
2. Competence in the human sciences:
  - a) in the understanding of current clinically relevant medical science
  - b) in scientific principles as they apply to the analysis and further expansion of medical knowledge;
3. The ability to engage and involve any patient in a relationship for the purpose of clinical problem solving and care throughout the duration of the relationship;
4. Eliciting a clinical history;
5. Performing a physical examination;
6. Generating and refining a prioritized differential diagnosis for a clinical finding or set of findings;
7. Developing and refining a plan of care for both the prevention and treatment of illness and the relief of symptoms and suffering;

8. Developing a prognosis for an individual, family or population based upon health risk or diagnosis, with and without intervention, and planning appropriate follow-up;
9. Selecting and interpreting clinical tests for the purpose of health screening and prevention, diagnosis, prognosis or intervention;
10. Organizing, recording, presenting, researching, critiquing and managing clinical information;
11. Selecting and performing procedural skills related to physical examination, clinical testing and therapeutic intervention, and
12. Knowledge of the social, economic, ethical, legal and historical context within which medicine is practiced.

### **Evaluation of the Current UVA Curriculum on Cultural Competency**

The first step in the assessment process was to query each of the required course and clerkship directors about the content of their curriculum as related to cultural competency. Dr. Hauck attended a Principles of Medicine Committee Meeting and a Clinical Medicine Committee to discuss this project and request that each director complete the Tool for Assessing Cultural Competence Training (TACCT).<sup>2</sup> Responses were received from all course/clerkship directors (last one returned the week of December 10, 2007). Grace Milad, 4<sup>th</sup> year undergraduate UVA student and University Internship Program intern working with Dr. Hauck on this project, entered all the responses into an excel spreadsheet and summarized these in a report, Cultural Competency in the UVA SOM Curriculum. The report includes for each required course/clerkship: course description; summary of competencies covered in the course/clerkship including knowledge, skills, and attitudes based on responses to the TACCT; and evaluation method. Information about the course description and evaluation were obtained from course websites where available, and course directors were also queried about evaluation methods, specifically if cultural competency areas were evaluated.

The majority of courses identified some competencies that were covered in their courses. As expected, the “basic science” courses, such as Medical Biochemistry and Gross and Developmental Anatomy had very few, if any, and these tended to be in the knowledge realm. Courses such as Social Issues in Medicine and Practice of Medicine I Clinical Skills covered a larger number of competencies, and in all three realms. The clinical clerkships were also likely to include these competencies, but clerkship directors indicated that this was highly dependent on the attendings involved at any given time, as some emphasized teaching cultural aspects of patient care while others did not. Clinical Connections is a required course for all third-year UVA medical students. Each one-day session concentrates on an area of medicine that cuts across disciplines, and may focus on a clinical topic with legal, ethical, economic, and societal themes. Examples include cultural competency, management and care of the aging, pain management, sexual dysfunction, cancer care, disability management and rehabilitation, and disaster

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<sup>2</sup> Available at: <http://www.aamc.org/meded/tacct/usingtacct.pdf>

medicine. The cultural competency session began two years ago and covers many of the TACCT competencies.

Overall, evaluation of students in their courses and clerkships consist of a variety of methods, including written exams, participation in class, evaluation of performance on the clinical rotations, and standardized patient examinations. Most courses/clerkships indicated that they do not explicitly evaluate competencies related to cultural awareness or bias.

The full summary of results is found in Appendix 1.

### **Cultural Competency in the Curriculum Advisory Committee (CCCAC)**

A committee was organized, consisting of representatives from the School of Medicine, hospital, School of Nursing, residents, and students (Appendix 2). The committee was charged with reviewing the report and TACCT survey results to respond to the charge and make recommendations as described above. The CCCAC met several times from January through May 2008. Additionally, five subcommittees were formed from the membership of the committee: Defining Competencies; Resources; Liaison with other UVA schools and medical center; Evaluation; and Faculty Development (Appendix 3). These subcommittees met 2 to 4 times each.

### **Subcommittee Reports**

#### Defining Competencies

After a review of the current literature, the subcommittee proposed the following definition of cultural competency:

Functioning effectively as an individual or organization within the context of the cultural beliefs, practices, and needs presented by patients and their communities.<sup>3</sup> This includes demonstrating sensitivity and responsiveness to patients' and colleagues' gender, age, culture, religion, disability, physical appearance, ethnicity, gender identification, and/or sexual orientation.

The Committee accepted this definition. There was discussion about what to call "cultural competency." Other expressions were suggested, including "cultural humility," "cultural responsiveness," and "cultural sensitivity." It was agreed that we continue to use "cultural competency" since this seems to be the most widely used currently in the literature. However, it was also noted that the expression may change over time, and we can be flexible to change it if and when that time comes.

The subcommittee reviewed different approaches to defining the specific competencies. It was felt that the TACTT approach was too lengthy and redundant. A new TACCT was developed by schools of medicine around the country that received NIH funding to develop cultural competency core centers. Dr. Hauck had seen a copy of this at a workshop she attended in May. However, the subcommittee favored the approach developed by Culhane-Pera and colleagues, based on five levels of competence.<sup>4</sup> The five levels of cultural competence are as follows:

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<sup>3</sup> South-Paul J, et al. Cultural competence education. AAMC, 2005.

<sup>4</sup> Culhane-Pera KA, Reif C, Egli E, Baker NJ, Kassekert R. A curriculum for multicultural education in family medicine. Fam Med 1997; 29:719-23.

Level 1: No insight about the influence of culture on medical care

Level 2: Minimal emphasis on culture in medical setting

Level 3: Acceptance of the role of cultural beliefs, values, and behaviors on health, disease, and treatments

Level 4: Incorporation of cultural awareness into daily medical practice

Level 5: Integration of attention to culture into all areas of professional life

The Committee discussed the appropriate level for graduating medical students to achieve, and determined that Level 3 is appropriate. We made some modifications to the Knowledge, Attitudes, and Skills (K/A/S) described by Culhane-Pera and colleagues.

Knowledge:

1. Define culture and list various factors that influence culture.
2. Describe cultural beliefs, values, and behaviors of 3 population groups at UVA or affiliated hospitals.
3. Discuss important cultural influences of 5 patients.
4. Describe negotiation processes.
5. Describe 2 traditional healing practices of each of 2 different cultural groups.

Skills:

1. Inquire about beliefs, practices, and values for patients and families as pertinent to medical problems.
2. Obtain a medical history, considering cultural information.
3. Perform a physical exam, adjusting to fit the patient's cultural desires or expectations.
4. Consider cultural information in making diagnostic and therapeutic plans.
5. Work with interpreters (including on the CyraCom phone) in an effective manner.
6. Respond appropriately to patients' own stereotypes or biases about clinical providers' culture or ethnicity.

Attitudes:

1. Respect patients' and families' behaviors and values.
2. Be aware of the influence of socio-cultural factors on patients, practitioners, the clinical encounter, and interpersonal relationships.
3. Appreciate the heterogeneity that exists within and across all cultural groups, and the need to avoid overgeneralization and negative stereotyping.
4. Be aware of one's own cultural beliefs, values, and practices that influence oneself as a cultural person.

Culhane-Pera provide an evaluation tool that is a self-assessment of one's own level of achievement of each of the K/A/S competencies, on a scale from 1=not at all to 5=excellent. In our case, this would be administered in the first year of medical school, perhaps in the Social Issues in Medicine course, and again either near the completion of medical school or in the third year during one of the clerkships or Clinical Connections. The goal would be to see significant improvement in students from the first to the second self-assessment.

## Evaluation

Subcommittee member, Elizabeth Bradley, was also one of the main writers of a grant submitted to HRSA in December 2007, “Enhancing the Culturally Competent Care of Vulnerable Populations: Global Health in Your Own Back Yard.” This proposal outlined a comprehensive curriculum for teaching cultural competency at UVA School of Medicine across all four years of education. It included course descriptions, evaluation plans, and faculty development methods. This proposal is available upon request and provides. The approaches described in the HRSA grant proposal, which was written with input from a large number of faculty in Family Medicine, General Pediatrics and General Medicine, are referenced in the recommendations of the Committee.

The report of this subcommittee is attached as Appendix 4. The highlights are summarized below.

Since there is this paucity of information on the best tools to use to measure the effectiveness of training in cultural competency interventions, subcommittee members looked at various programs described in the systematic review and found that one, initiated by Crandall, et al at Wake Forest University School of Medicine (WFUSM)<sup>5</sup> was of special interest. This study, done with pre doctoral students, was described by Beach, et al, as an example of an intervention that provided significant beneficial effect on the students’ overall cultural knowledge, attitudes and skills.<sup>6</sup> The educators at WFUSM used a theoretically based training course for second year students but specific portions of their training could easily be used in any of the workshops proposed as an approach for measuring training in the HRSA grant. That an overlying theory was guiding training was of special interest to subcommittee members. The frameworks used to design course objectives and educational experiences and to help determine changes in students’ knowledge, skills and attitudes are outlined in Appendix 4.

To evaluate the theory based curriculum which included readings, critical and reflective journals, essays, and observed interviews using interpreters, the WFUSM program used the Multicultural Assessment Questionnaire (MAQ). The MAQ is a 16-item Likert-scale instrument designed by Culhane-Pera and colleagues that consists of specific knowledge, skill and attitude objectives that help learners achieve Stage 3 of Culhane-Pera’s adaptation model (see preceding section).

Subcommittee members agree that increasing students’ awareness of a lack of insight or their “unconscious incompetence” is essential to any movement to a higher skill and knowledge level. The Implicit Association Test (IAT) (<https://implicit.harvard.edu/implicit/>) is one method that has been well researched for its use in measuring implicit or automatic attitudes. This tool could potentially be used by students to gain greater awareness of their own unconscious preferences and beliefs. As such, subcommittee members would recommend its use at an early point in students overall training.

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<sup>5</sup> Crandall SJ, George G, Marion GS, Davis S. Applying theory to the design of cultural competency training for medical students: A case study. *Acad Med.* 2003;78:588-594.

<sup>6</sup> Beach MC, Price EG, Gary TL, et al. Cultural competence: A systematic review of health care provider educational interventions. *Med Care.* 2005;43:356-373.

In addition to overall assessment of students' progress in reaching a level of acceptance of the roles of cultural beliefs in healthcare as outlined Culhane-Pera's third stage in the WFUSM training, the HRSA project's measurement approach includes assessment of student cultural competence using discrete clinical skill OSCE. There is some agreement, according to Dogra<sup>7</sup> that reflective journal writing and OSCEs are methods preferred by key stakeholders in medical education on the teaching and learning of cultural diversity. Educators at Maimonides Medical Center have described their formative Culture OSCE that has been in use since 1999<sup>8</sup> and this model could be used for evaluation here as well. The Maimonides OSCE includes stations that were designed based on reviews of the literature to identify relevant competencies and real situations experienced in their hospital. Still, there are continuing questions about whether it is best to have a separate cultural OSCE, as this may potentially marginalize the topic and promote stereotypes, or whether to spread cultural information throughout other OSCEs in the curriculum, as this may limit opportunity for focused teaching. Regardless, as with any OSCE, learning goals should be clear, concise, and effectively communicated to faculty and standardized patients so their feedback can be standardized and specific. It was pointed out that some OSCEs have already been developed that would address some cultural competency skills, including working with interpreters for an elective offered by Family Medicine.

Another outcome measure proposed for the HRSA grant would be the creation of new modules in the Clinical Practice Exam (CPX) at the end of the third year. Many entities, like the National Medical Association, (<http://www.medscape.com/viewprogram/12540?src=mp&spon24&uac=28159BZ> ) and the Office of Minority Health (<http://www.thinkculturalhealth.org/>) have developed comprehensive, online multimedia, case-based curricula designed to help clinicians better meet the cultural and linguistic needs of diverse patient populations and these modules could be used to help inform the development of local workshops and exams. Certainly, the subcommittee would recommend correlating the learning goals outlined in any new CPX modules with those from any specific cultural OSCEs and then, ultimately, connecting them all to a meaningful theoretical framework such as that outlined by the WFUSM described above.

### Liaison

The recommendations of this subcommittee were not provided separately, but are reflected in the final recommendations of the Committee below.

### Resources

A list of resources, including fiction, nonfiction, memoir, policy, and film, was compiled by this subcommittee (Appendix 5). The resources could be used for many of our courses and clerkships. Further assessment will need to be done to prioritize, identify where best used, and to identify those that should be purchased and made available to course and clerkship directors.

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<sup>7</sup>Dogra N, Wass V. Can we assess students' awareness of cultural diversity? A qualitative study of stakeholders' views. *Med Educ.* 2006;40:682-690.

<sup>8</sup>Aeder L, Altshuler L, Kachur E, et al. The "culture OSCE"--introducing a formative assessment into a postgraduate program. *Educ Health (Abingdon).* 2007;20:11.

## Faculty Development

This subcommittee provided the following recommendations:

1. Establish a position of Cultural Competency Program Director. This position would monitor courses and clerkships to ensure that a coherent and progressive curriculum in cultural competency was in effect; that the components were aware of the entirety of the program and their place in the program; and that students were evaluated to ensure competency.
2. Create a system that ensures competence in cultural sensitivity. This would include establishing training programs for new teachers; a teaching mentorship program for all new teaching faculty; and minimum requirements for teaching cultural sensitivity.
3. Create a faculty development program designed to support cultural competency in medical care delivery. This would include educating department chairs, program directors, general clinical faculty, and nursing and hospital management as to the importance of teaching, modeling, and evaluating cultural issues; assisting faculty to develop the necessary skills; and identify and recruit faculty with an interest in cultural competency, ethics, and humanities to work together to develop teaching programs. It was recommended that this program should be supported in part by the hospital as it would benefit patient care and be used to promote the high quality of health care at UVA Health System. It was also suggested that working with the Teaching Resource Center could be helpful.
4. Establish a cultural competence website. It was pointed out by the Committee that there is a new website already, Culture, Communication, and Healthcare, that would be the ideal location for these to be included. This website is managed by the UVA Medical Center Library.
5. Learning of cultural competency should be focused on real people. Suggestions for learning cultural competency include: a written reflective exercise about a patient; ethics rounds; and electives.
6. Evaluation can include PoM-1 and PoM-2 evaluation; online CBL exercises; line on the clerkship Passports-“Student managed a patient effectively within the context of the patient’s cultural beliefs, practices, and needs” during each clerkship; clinical practice examination case assessing cultural competency at the end of the clerkships.

## **Final Recommendations of the Advisory Committee**

The final recommendations of the Advisory Committee derive from the recommendations of the individual subcommittees and are summarized below:

1. The Committee agreed to the following definition of cultural competency: Functioning effectively as an individual or organization within the context of the cultural beliefs, practices, and needs presented by patients and their communities.<sup>9</sup> This includes demonstrating sensitivity and responsiveness to patients’ and colleagues’ gender, age, culture, religion, disability, physical appearance, ethnicity, gender identification, and/or sexual orientation. It is important to emphasize that culture does not just apply to someone’s race-

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<sup>9</sup> South-Paul J, et al. Cultural competence education. AAMC, 2005.

ethnicity or country of origin, but encompasses all of the aspects included in this definition.

2. The Culhane-Pera approach to defining cultural competency K/A/S should be adopted (graduating medical students should be able to achieve or nearly achieve Level 3). (See pages 4-6.)
3. Use the HRSA grant as a template for a comprehensive cultural competency curriculum that reaches students in every year of medical school. This should be phased in over 3-5 years. Things that can be done fairly easily as a start include modifying PoM 2 cases to be more reflective of cultural issues and developing new workshops for clerkships.
4. Evaluation of students in achieving our learning objectives in cultural competence should include:
  1. Implicit Association Test (IAT) as a learning tool for students (and faculty) to identify their own biases and stereotypes. Students could be required to take 3 modules (e.g., race, religion, gender) and their reactions could be discussed during small group sessions in Social Issues in Medicine or PoM. A separate server could be set up so that data are collected anonymously, but in the aggregate they can be analyzed for change over time.
  2. Reflective writing about a patient experience where culture played a role.
  3. Culhane-Pera self-assessment tool.
  4. OSCEs and CPX.
  5. Passport to include assessment of cultural competency in patient care.
5. The library website on cultural competency, Culture, Communication, and Healthcare, should provide links to other on-line resources as well as resources/syllabi developed for use by courses/clerkships at UVA. The library will have on reserve various media that can be borrowed by courses/clerkships, such as videos and books, and these will be listed on the website as well. Links to all courses that are part of the cultural competency curriculum should also be provided.
6. There should be a cultural competency committee that consists of 8-10 people from the school of medicine, school of nursing, and hospital initially. Other schools at UVA could be included at a later date. This committee should be called the "Cultural Competency Steering Committee" and be chaired by an individual with a strong interest, experience, and expertise in cultural competency. The chair would convene the committee, inviting potential members from the various arenas. Representatives from these different arenas would go back to their own constituents and organize task forces or other administrative entities to share information and resources, develop curricula, and achieve accountability.
7. The school of medicine, school of nursing, and hospital should contribute funding for the position of Cultural Competency Program Director, much as associate and assistant deans are funded for their administrative and curricular functions. A minimum of 0.25 FTE should be devoted to this position. Additional funds should be committed for faculty development and other recommended areas described in this report.

## **Changes to the Curriculum Put in Place in 2008 and Planned for 2009**

Some changes have already been implemented. 1) The Passports have been changed to add the competency-“Student managed a patient effectively within the context of the patient’s cultural beliefs, practices, and needs” for implementation at the start of the 2008-2009 clerkship cycle. 2) The School of Medicine “Competencies Required of the Contemporary Physician” have been amended to include a cultural competency component. The Curriculum Committee voted to include the component “Cultural competency in clinical relations” in Competency #1 (1i). 3) Dr. Hauck has met with Anne Chapin, Coordinator of the Clinical Skills Training and Assessment Program, to discuss ways to incorporate cultural competency into the CPX exam. 2-3 specific cases will be identified in which specific cultural competence skills can be incorporated. After the approval of the respective clerkship directors, these will be used in the 2009 exam cycle.

In conclusion, this evaluation has identified strengths in the curriculum associated with K/A/S in cultural competence. However, areas for significant improvement have been identified as well. Implementation of a phased in approach to curriculum development, evaluation and faculty development will help the School of Medicine achieve the LCME cultural competency and bias educational objectives, as well as move us into a position of leadership among academic medical centers.

## Appendix 1

### Cultural Competency in the UVA SOM Curriculum February 5, 2008

This report aims to describe the cultural competencies met in the curriculum presently and to serve as a tool for assessing areas of improvement. For each course in the first and second year of the medical curriculum, a brief course description is provided, based on information from that course's website. The second section outlines and lists the specific components of cultural competency covered in the course, as specified by the course director when he/she completed the grid. It also includes any further explanations and examples given by the course director. Finally, an overview of how the course evaluates students and especially how the aforementioned cultural competencies are assessed and evaluated in the course is provided.

#### *Using TACCT grids to evaluate cultural competency:*

The TACCT is a self-administered assessment tool that can be used by medical schools to examine all components of the entire medical school curriculum. Schools can identify areas in the curriculum where specific aspects of culturally competent care are currently taught, including previously unrecognized educational elements. The TACCT permits gaps to be identified, as well as planned and unplanned redundancies that will allow schools to make the best use of opportunities and resources.

#### *Caveats of using the TACCT grids:*

Each course director or clerkship director filled out the grids in their own way. Some chose to list every particular instance the competency was met (for example, a comprehensive lecture-activity run-through); others checked a competency if it was met generally or mentioned in a certain type of environment (ex. community service or small group discussion). Therefore, it should be noted that the numbers do not give any absolute "score", per se, but rather a relative way of seeing where courses/clerkships address a competency and where they are not.

## I. First Year Courses-Foundations of Medicine

### Orientation/Cell to Society

#### Course Description:

Using diabetes as a model, this course focuses on and connects the patient to all other aspects of the Foundations of Medicine curriculum. This orientation course is intended to inspire and motivate students to learn the knowledge, skills, and values needed for the practice of scientific clinical medicine. The course will demonstrate to first year medical students how the care of a patient raises questions across multiple domains in addition to clinical medicine, especially biomedical science, culture and society, and public health, health care systems, and public policy.

#### Competencies Covered in the Course:

*Competencies are met through a variety of methods including lectures, small group discussions, patient interviews, field trips and a resource fair. The students' exposure to these issues and competencies is dependent on which interviews and/or field trips students they are placed in.*

#### Knowledge:

(Domain I-K2, K3; Domain II-K5; Domain III-K6; Domain IV-K1, K2, K3, K4, K5, K6; Domain V-K1)

Students are exposed and introduced to a broad base of a particular illness/condition and taught about social determinants of health, health disparities, and issues of community health.

#### Attitudes:

(Domain I-A2; Domain II-A2, A4; Domain IV-A1, A2, A3; Domain V-A1)

The patient interviews introduce students to the value of communication and necessity of sensitivity and needs of the patient, acknowledging the patient as a complete and social person. Students are also taught the importance of valuing disparities, especially those amenable to interventions and gain an understanding of historical impact of racism on health care.

#### Skills:

(Domain II-S2, S3, S4; Domain III-S4; Domain V-S1)

Early on, students begin to learn the art of the patient interview, especially on asking appropriate questions to elicit a medical, social and cultural history of the patient.

#### Evaluations:

Since this is an orientation course in the first few days of medical school, students are not evaluated.

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## Social Issues in Medicine

### Course Description:

During this course, students will recognize and analyze the interrelationships between socio-cultural environments and the occurrence, prevention and treatment of disease. Students will also identify and nurture values that characterize a professional and humanistic practice of medicine and an ethic of service. To accomplish these goals, this course employs a service-learning pedagogical framework; students will engage in classroom and community activities in order to address course learning objectives. Course format includes interactive lectures, small group discussions, self-reflection and community partner site visits.

### Competencies Covered in the Course:

*Competencies are met in the course through four main methods: lecture, small group discussions, community service and written reflections.*

### Knowledge:

(Domain I- K1, K2, K3, K4; Domain II- K3, K5; Domain III- K1, K2, K3, K5, K6; Domain IV- K1, K2, K3, K4, K5, K6; Domain V- K1)

Competencies are covered extensively in all domains except Domain V-Cross-Cultural Clinical Skills. For example, students are not exposed to issues of patient adherence and the function of interpreters.

### Attitudes:

(Domain I-A1, A2, A3; Domain II- A1, A3, A4; Domain III- A1, A2, A4, A5; Domain IV- A2, A3; Domain V-A1, A2)

Generally, competencies were also met except in cases that required pro-active use of attitudes of cultural competency; for example, describing potential ways to address bias and listening nonjudgementally to patients' health beliefs.

Skills: (Domain I-S3; Domain III-S1, S2, S4, S5; Domain IV-S3; Domain V- S2, S3)

Although many skills were covered in the curriculum, students do not learn specific objectives like learning how to elicit information based on family-centered contexts and patient preferences.

### Evaluation:

Attendance: Attendance at all lectures and small group discussions is required.

Reflections: Each week students will respond to a weekly reflection prompt.

Agency Evaluation: Community agencies will evaluate partnering students; these evaluations will be included in each student's permanent file. Students will complete 30 hours with the community partner.

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## Practice of Medicine I

### Course Description:

This course seeks to help students develop and practice a set of personal and professional attributes that enable the independent performance of the responsibilities of a physician and the ability to adapt to the evolving practice of medicine. These include an attitude of

commitment to humanism, compassion and empathy, collegiality and interdisciplinary collaboration, continuing and lifelong self-education, ethical, personal and professional conduct and legal standards and conduct. Develop the ability to engage and involve any patient in a relationship for the purpose of clinical problem solving and care throughout the duration of the relationship.

Competencies Covered in this Course:

No cultural competencies are explicitly being taught in the POM curriculum.

Evaluation:

Narrative form evaluation completed by faculty advisor for small group. (Pass/Fail)

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## **Practice of Medicine I Clinical Skills**

Course Description:

In this course, students will learn how to elicit a clinical history, perform components of the physical exam, begin to generate and refine a differential diagnosis for a clinical finding or set of findings, begin to organize, record, present, research, critique and manage clinical information, and develop a knowledge of the social, economic, ethical and legal context within which medicine is practiced.

Competencies Covered in this Course:

Knowledge:

(Domain II-K2, K3; Domain IV- K1, K2, K3, K5)

This course does an overview glance of all the domains (refer to the domain overview sheet). However, specific components were listed in only two domains.

Attitude:

(Domain II-A1, A2)

Attitudes are rarely addressed in this course.

Skills:

(Domain II-S2, S5; Domain III-S5)

Evaluation:

Narrative form evaluation completed by faculty advisor for small group. (Pass/Fail)

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## **Human Behavior**

Course Description:

The course on human behavior is a selected overview of contributions from behavioral sciences to clinical practice of primary care physicians. The objective is to sensitize students to the impact of such factors as emotional and physical development, cultural backgrounds, social roles, families, sexual identities, and belief systems upon their effectiveness as

physicians. It also encourages appreciation of the role of behavioral factors in major management problems faced in medical practice; covers physical and psychological development of the individual from the embryo through old age; teaches skills in analyzing behavior, defining behavioral objectives, and designing precise treatment strategies to obtain these objectives.

Competencies Covered in the Course:

Knowledge:

(Domain I- K2; Domain II- K2, K3; Domain IV-K1, K2; Domain V-K2)

Attitude:

(Domain III-A1, A4)

Skills:

None listed.

Evaluations:

A mid-term examination and a final examination are given. All subjects covered during lectures and discussion groups are “fair game” and appear on the exams.

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## **Cell and Tissue Structure & Physiology**

Course Description:

Cell and Tissue Structure (CTS) is integrated with Medical Physiology into a year long course that provides a correlated structure/function approach to cells, tissues, organs and organ systems. A hierarchical approach is taken, starting with the study of the cell. A thorough introduction to cell biology and cell physiology, how cells work together cooperatively to form the basic tissue types of the body is demonstrated; during this portion of the course, Physiology Department faculty present nerve and muscle physiology. Then, how these basic tissue types are woven together to form the specialized organs and organ systems of the human body is demonstrated.

Competencies Covered in the Course:

This course teaches a knowledge base of epidemiology of population health, discusses differing values, cultures and beliefs, and teaches effective communication skills.

Knowledge:

(Domain I- K2, K3; Domain II-K2, K3, K5)

Course has clinical correlations which provide most opportunity to discuss issues of cultural competence. A clinical correlation on Parkinson’s included a discussion on how natives from Guam held supernatural explanations for the occurrence of the disorder. Another clinical correlation on cystic fibrosis and myasthenia gravis discussed the frequency of these diseases in men versus women and minorities. In the Physiology segment of the course, how race and culture relate to health and national patterns of disparities are identified. Following that, students describe population health variability factors.

Attitudes:

None

Skills:

(Domain V-D)

The course is heavily dependent on small-group laboratory teaching, learning to work in groups and good communication skills come into play.

Evaluations:

Students are assessed by two exams per semester of the year-long course and laboratory exams.

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## **Medical Neuroscience**

Course Description:

Students will understand the functional neuroanatomy of each level of the nervous system. At each level, students will identify key structures and pathways (as seen in anatomical specimens, diagrams, cross-sections or radiographic images), understand their normal physiological functions, and predict the neurological consequences if these structures are damaged. Students will also understand the anatomy and physiology of sensory, motor, and integrative systems that extend over several levels of the nervous system.

Competencies Covered in this Course:

Knowledge:

(Domain IV-K1)

In lecture, factors that impact health are taught. In addition, there are a number of presentations by clinicians throughout the course, some of which involve patients. These presentations are highlighted as important learning experiences that demonstrate how basic science knowledge is essential in neurological diagnosis and treatment and ultimately, care for the patient.

Attitudes:

Not taught.

Skills:

Not specified.

Evaluation:

There are four quizzes and two exams. Exam questions will be of two general types: 1) those that test the student's knowledge of information from a specific lecture, lab, or clinical presentation; 2) those that assess the student's ability to integrate material from different sources in order to develop a comprehensive picture of functional neuroscience and apply it to clinical problems. Exams do not directly assess cultural competency.

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## **Medical Biochemistry**

### Course Description:

This course focuses on providing medical students with a working knowledge of biochemistry, a need that is becoming increasingly important for practicing physicians. Specific attention will be on attaining a relatively strong foundation regarding the biochemistry of the human body.

### Competencies Covered in the Course:

Knowledge: (Domain I- K2; Domain IV- K1, K4)

Attitudes: (Domain I- A1; Domain II- A2)

Skills: None taught.

### Evaluations:

Students are graded on the course's material through two examinations, quizzes, and attendance and participation in three "Disease of the Month" small groups.

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## **Gross and Developmental Anatomy**

### Course Description:

Anatomy is concerned with the structure and function of the body. It is the basic biological course in which students learn the morphological setting upon which clinical knowledge and experiences are built. In this course, we approach anatomy from gross structural and embryological perspectives. In both cases, students will use this knowledge to recognize normal variations and clinically relevant abnormalities during their medical careers. The major educational objectives of the course are to

- a. Learn correct anatomical vocabulary so that the student can communicate effectively with medical colleagues.
- b. Learn the gross morphology of the body, particularly the structural relationships which permit understanding of anatomical variation, clinical radiology and the spread of disease;
- c. Learn and appreciate that the various structures of the human body form an integrated whole, without which proper function is impossible;
- d. Understand anatomy in three-dimensions and use this knowledge to analyze medical images such as CT scans, MR images and ultrasound; understand basic principles of human development, specifically the developmental processes that are applicable to diagnosing congenital malformations and monitoring fetal development during pregnancy.

### Competencies Covered in the Course:

None taught.

Evaluations:

Written exams are in the style of USMLE examinations, i.e. type A multiple choice questions (MCQ: select the best answer) and matching-type questions. Practical exams consist of fill-in-the-blank questions of first order (e.g. identify structure) or second order (e.g. identify the innervation of the structure). In addition, students complete online radiology exercises, take pop quizzes and lab oral quizzes and give an oral presentation based on a case as part of their overall grade.

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**Medical and Molecular Genetics**

Course Description:

The course's objective is to provide an overview of the basic and clinical aspects of the rapidly changing field of human genetics

Competencies Covered in the Course:

Knowledge:

Although there are no specific competencies listed, the lectures cover issues such as health insurance discrimination and biases in the unit on ethics and eugenics. Cultural issues are also presented in the genetic counseling lecture in regards to the importance of ethnic and cultural backgrounds.

Attitudes: (Domain V-A1)

Respect for a patient's cultural beliefs is discussed in lectures on genetic counseling.

Skills: (Domain V-S1)

Students are taught how to elicit a comprehensive history in the genetic counseling lecture.

Evaluation:

There are two exams, a writing assignment and a final exam. The exams cover lecture material as well as patient presentations and clinical correlations. The writing assignment is a directed clinical letter. The student will receive a hypothetical clinical scenario from a referring physician who has questions concerning a patient. The student will investigate the situation from a differential diagnosis to the latest in molecular understanding and/or treatment. The final product will be a 3 page letter back to the referring physician providing him or her with all of the information necessary to manage the patient.

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**II. Second Year Courses: Core Systems**

**Practice of Medicine II (POM-2) & POM II Clinical Skills**

Course Description:

This course is a problem-oriented course which utilizes a small-group format. Each section (specialty area) will begin with one or more lectures as an orientation to that topic area; the

remaining class time will be used for independent study, case discussion groups, tutorial groups, and physical diagnosis labs. The following are the goals of the course; the student will (gain):

- a. Acquire medical knowledge in an integrated, clinically relevant context.
- b. Learn to use the facilities and resources necessary to obtain information for solving clinical problems.
- c. Develop problem-solving skills with a critical approach to clinical problems.
- d. Become a self-directed learner with the ability to evaluate personal educational strengths and needs.
- e. Recognize and develop the personal characteristics desirable in physicians.
- f. Insight into and sensitivity to the ethical and humanistic aspects of healthcare.
- g. Interpersonal skills necessary for productive small group activities involving health care, learning or research.

#### Competencies Covered in the Course:

None explicitly taught for either the POM small groups or clinical skills portion of the course.

#### Evaluations:

There are four examinations; each will cover all problem lists that were included during that quarter and information presented in lectures. Each exam covers the material for that quarter and is not cumulative. The exams will contain clinical cases with accompanying multiple choice questions in the same format as the problem set cases and questions.

Students are also assigned to conduct 3 histories and physicals on hospital or clinic patients under the supervision of a faculty preceptor. Performance on these histories and physicals contribute to the POM - 2 final grade. At the end of the spring semester, the student is asked to perform a complete history and physical on a standardized patient, and is evaluated by a 4th year student.

In addition, for the weekly small group meetings, tutors (faculty mentors) will prepare an evaluation for each student in their group based upon the student's self-evaluation, the student's evaluation by other group members and the tutor's own assessment. This written evaluation will become a part of your permanent record. A satisfactory rating from both tutors (one each semester) will be required before you can receive a grade for the course.

Weekly self-evaluation is an essential component of the POM - 2 tutorial process. It encourages students and tutors to reflect upon their own performance and consider how it might be improved. It allows everyone to focus on the group dynamics and recognize both positive and negative aspects of the interactions and relationships. Finally, it provides a forum in which problems can and should be discussed by the group.

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## **Introduction to Psychiatric Medicine**

### Course Description:

The goal of this course is to help the student to gain both a factual understanding of mental disorders and the clinical skills necessary to diagnose and treat these conditions. The course is designed to provide a "bench to bedside" experience. The student, upon completion of this course, will be able to recognize and appropriately manage psychiatric problems in his or her patients. To accomplish this goal, the student in a small group interview setting (with live patients and a preceptor) will apply and enhance through practice his or her skills for obtaining information from and assessing patients with behavioral problems and in a lecture and group seminar format will learn the factual information about psychiatric disorders, differential diagnosis, and treatment.

Competencies Covered in the Course:

*Competencies in this course are met through teaching in lecture, small group discussions, special seminars with guest speakers, online written case assessments, and interview sessions.*

**Knowledge:**

(Domain IV- K1, K2, K3, K6; Domain V- K3, K6)

Patient-physician negotiation and knowing about ways to enhance patient adherence were the two knowledge bases consistently met (discussed every lecture period). Students are also taught about social determinants of health and health disparities.

**Attitudes:**

(Domain II- A1, A2, A3, A4; Domain III- A1, A2, A3, A4, A5; Domain V- A1, A2)

Competencies met in regards to understanding the physician's own biases and those effects on care, respecting and being comfortable with patients' own cultural beliefs, backgrounds and values.

**Skills:**

(Domain III- S5; Domain V- S1)

Students are taught how to use reflective practice in care and eliciting comprehensive histories (cultural, social and medical).

Evaluation:

Grades will be determined based on two multiple-choice examinations (a midterm and a cumulative final exam), by attendance and participation in laboratory sessions, and by completion of online written clinical cases. Lectures and seminar topics will be evaluated by the examinations and small-group objectives will be evaluated by the student's preceptor.

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## **Pharmacology**

Course Description:

The three goals of the course are, in order of importance, to learn the basic mechanisms of action of the major drug classes, to learn the fundamentals of their therapeutic use, and to memorize the major representative drugs of each class. The order of the lectures is a compromise between two objectives: i) the need for a reasonably rational sequence of pharmacological topics and ii) the need to integrate the Pharmacology course with your POM2, Pathology, and Psychiatric Medicine courses.

The subject matter of the course provides information that is important for physicians to have in order that they may exhibit professional behavior in the use of drugs when dealing with patients. In addition to the scientific aspects of the discipline of pharmacology, this includes an understanding of how societal factors influence decisions made by physicians and by patients. Such factors include the economic costs of drugs, incentives to physicians to prescribe new drugs, gender differences in patient acceptance or effectiveness of drugs, religious or ethnicity considerations that may influence patient compliance, and legal and social issues relevant to drug abuse and drug addiction.

#### Competencies Covered in the Course:

##### Knowledge:

(Domain II-K2, K4; Domain IV-K1, K2; Domain V-K6)

The course demonstrates, through lectures, knowledge in epidemiology, recognizes and identifies differing patients' health beliefs and healing traditions, and factors that impact health.

##### Attitudes:

(Domain I-A3; Domain II-A3)

As stressed in the course objective, the course takes an interest in valuing diversity in the health care setting and values and addresses social determinants of health.

##### Skills:

(Domain V-S4)

Students are taught how to assess and enhance patient adherence.

##### Evaluation:

Students take three interim exams and one comprehensive final exam. Students are aware that questions in the area of cultural competency are "fair game". However, not every exam will ask questions in this area as the exams cannot cover the entire subject. Probably two or three questions per year relate to understanding of how cultural issues influence the use of particular drugs by the physician. The specific questions vary from year to year. These are probably insufficient to truly judge the level of competence the students have in these areas. The course instructors are currently working to increase the number of questions in these areas.

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## **Medical Microbiology**

### Course Description:

Medical Microbiology introduces basic principles and then applies clinical relevance in four segments of the academic preparation for physicians: immunology, bacteriology, mycology, and virology. (Parasitology is covered in the Pathology course.) This rigorous course includes many etiological agents responsible for global infectious diseases. Because the territory covered by infections and the immune response expands each year, we focus on pathogenic

mechanisms in order to foster a student's ability to solve problems in their future clinical career.

Competencies Covered in the Course:

*Competencies in this course were covered through a variety of methods including course orientation, lecture (basic or clinical), case discussions, dry and wet labs, and conceptual small group settings.*

Knowledge:

(Domain I-K2, K3, K4; Domain II-K4, K5; Domain III-K5; Domain IV-K1, K4, K6)

Attitude:

(Domain I-A3; Domain II-A3, A4; Domain IV-A1, A3)

Skills:

(Domain I-S3, Domain V-S2)

Evaluation:

Student performance in the course is evaluated by a series of exams and quizzes. Attendance at all course events is necessary for optimal performance, and material presented in small group sessions will be graded and shall be included in quizzes and exams. Furthermore, in infectious disease training, the medical students work to develop a more complete understanding of the genetic and behavioral risk factors that promote infection by particular organisms. Our evaluations (exams, quizzes, and interactive lecture questions) are often based upon the students' appreciation of these risk factors as they "solve" the question or case scenario. Particularly relevant to our examinations/quizzes are the following: race/ethnicity, sexual orientation, travel history to areas of endemicity, genetic disorders, and other health-related behaviors (such as smoking, obesity, and alcoholism).

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## **Pathology**

Course Description:

In Pathology, the study of disease, the basics of cell injury and adaptation are presented; this is then expanded to tissues, i.e., inflammation or neoplasia. These pathophysiologic processes are later examined at the level of organ systems and include the study of functional, genetic, biochemical, immunologic and morphologic aspects of disease. For instance, the first portion of the Pathology course begins by introducing general concepts of disease and moves to the systemic manifestations of disease in the study of endocrine and reproductive pathology. Students will also learn how to obtain, interpret, and effectively use laboratory data. The role of diagnostic pathology in treatment and patient care is emphasized either by direct integration within the course or by coordination with Practice of Medicine-2, Epidemiology, Pharmacology, and Microbiology.

Competencies Covered in the Course:

*This course uses lecture and laboratory cases to meet competencies.*

Knowledge:

(Domain II-K2, K4; Domain IV- K1, K2)

Attitude:

(Domain II-A4; Domain V-A1, A2)

Skills:

(Domain II-S5, Domain V-S4)

Evaluation:

Students will be assessed through cases in laboratory, quizzes and written examinations.

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## **Clinical Epidemiology**

Course Description: After completing the course students will be able to:

- a. Define variability and describe a normal distribution
- b. Develop and interpret a contingency table.
- c. Define and compute the sensitivity, specificity, and accuracy of a diagnostic test.
- d. Define and compute the positive and negative predictive value of a diagnostic test.
- e. Describe how the spectrum of patients, bias, and/or chance can affect the establishment of the sensitivity and specificity of a diagnostic test.
- f. Describe how disease prevalence influences the positive and negative predictive value of a test.

Competencies Met in the Course:

Knowledge: (Domain I-K1, K2, K3; Domain II- K4, K5; Domain IV-K1)

Attitudes: None Taught

Skills: (Domain I- S3; Domain IV- S1)

Evaluation:

Students are graded based on examinations, problem sets and other small group assignments.

## **III. Clerkships**

### **Internal Medicine**

Competencies Covered in the Clerkship:

Competences are met during clinical rounds, student AM rounds, and ethics rounds.

Knowledge: (Domain I-K2; Domain II-K2, K4; Domain IV-K1, K2; Domain V-K3)

Attitudes: (Domain I-A2; Domain II-A2; Domain III-A1, A2; Domain IV-A4; Domain V-A1, A2)

Skills: (Domain II-S2)

#### Evaluation

1. Clinical Work: Evaluations completed by housestaff at faculty at each of the three rotations total to 75% of the final grade.

2. Final Exam: A multiple-choice written examination (comparable to the Medicine Section of Step 2 of the USMLE) is given to evaluate students' medical knowledge, clinical skills, and interpersonal skills as applied in the clinical setting. This makes up 25% of the total grade.

3. Also refer to attached mid-month review sheet and student evaluation sheet that is done at the Ambulatory Internal Medicine (AIM) clerkship.

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### **Family Medicine**

#### Competencies Covered in the Clerkship:

Competencies are met during clerkship workshops and through preceptor teaching.

Knowledge: (Domain I-K2, K3; Domain II-K3, K5; Domain III-K1, K2, K3, K4, K5, K6; Domain IV-K2, K5; Domain V-K3)

Describing health data with immigration context is preceptor-dependent.

Attitudes: (Domain II-A1, A2, A3, A4; Domain III-A1, A2, A4, A5; Domain IV-A1, A2, A3; Domain V-A1, A2)

Skills: (Domain I-S1, S2; Domain II-S1, S2, S3, S4, S5; Domain III-S1, S5; Domain IV-S4; Domain V-S1, S2, S4, S5)

#### Evaluation:

1. Preceptor Evaluation is based on performance in the following areas:

(i) Core Family Medicine Principles: The student is able to identify ways in which family, culture, and community affect patient health and behavior, obtain a complete family/social history, educate patients about health promotion/disease prevention, and identify appropriate community resources for patients and their families.

(ii) Interpersonal Relationships: The student utilizes effective listening skills when interacting with patients, demonstrates sensitivity and respect to patients and their families, and develops effective working relations with the office staff.

(iii) Clinical and Procedural Knowledge: The student is able to apply medical principles and pathophysiology related to medical problems commonly seen in a Family Medicine

setting, conduct a focused patient history, conduct a focused physical exam, and provide accurate, complete, and organized case presentations of patient encounters.

(iv) **Problem Solving Skills:** The student collects relevant patient data, develops differential diagnosis and describes the rationale for the diagnosis, applies findings of diagnostic tests to the health care management of the patient, and develops a management plan related to medical problems commonly seen in a Family Medicine setting.

(v) **Professional/Personal Characteristics:** The student demonstrates an eagerness to learn, is responsive to feedback and evaluation, is prepared for scheduled activities, demonstrates initiative in becoming involved with activities of the practice, and demonstrates responsibility for patient care.

The preceptor evaluation counts for 50% of the total grade.

## 2. Exams:

The exam is broken into two parts. The first part consists of questions that relate to diagnoses and management of conditions commonly seen in Family Medicine. It is the National Board of Medical Examiners shelf exam. The second part of the exam is multiple choice questions (MCQs) relating to Evidence Based Medicine. Students will use their handheld to answer these questions. The two exams combined count for 45% of the clerkship grade.

## 3. Participation in Morning Report and Workshops:

The student is expected to actively participate in the two morning report sessions and in the workshops. This counts for 5% of the clerkship grade.

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## Surgery

### Competences Covered in this Clerkship:

Knowledge: (Domain II-K3; Domain III-K1, K2, K3, K4; Domain V- K3, K4, K5)

Attitudes: (Domain II-A2; Domain III-A1, A5; Domain V-A1, A2)

Skills: (Domain III-S5; Domain V-S1, S5)

### Evaluation:

The chief resident on service will assess all students. In addition, students may hand a copy of their evaluation form to any faculty member with whom they have had sufficient contact to allow a valid assessment.

1. Assessment by residents and faculty: This makes up 30% of the total grade.

2. Shelf Exam: This makes up 40% of the total grade.

3. Oral Exam: This makes up 30% of the total grade.

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## Neurology

### Competences Covered in this Clerkship:

Knowledge: (Domain I-K4; Domain II-K2, K3, K4, K5; Domain V-K3, K4, K5)

All of the above competencies are preceptor-dependent so not all students will meet them.

Attitudes: (Domain I-A2; Domain II-A1, A2, A3, A4; Domain III-A1, A2, A3; Domain IV-A3)

All of the above competencies are preceptor-dependent so not all students will meet them.

Skills: (Domain I-S1; Domain II-S2, S3, S4, S5; Domain V-S2)

All of the above competencies are preceptor-dependent so not all students will meet them.

### Evaluation:

1. Evaluation by Preceptor: These are completed by the service attendings and residents. Any student who receives an overall grade of "marginal" or "unsatisfactory" from any evaluator will be asked to meet with the Clerkship Director to discuss and develop a remediation plan. This makes up 65% of the final grade.

2. NBME Shelf Exam in Neurology: This is a closed-book, tightly proctored exam. It makes up 10% of the final grade.

3. Knowledge Exam: This is an open-book exam-fifty multiple choice questions based on course objectives. It makes up 25% of the final grade.

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## Clinical Connections:

### Course Description:

Clinical Connections is a third year experience, a course designed as an effort to introduce a continuing medical educational experience into the medical school curriculum. The goal is to provide a format that will offer topics that bridge many fields of medicine and consequently are not taught in a unified fashion. Topics combine principles from the first two years of medical school with those that are, and will be, learned in the third and fourth years. The role of basic science in the practical day-to-day practice of medicine will be illustrated in addition to an examination of a number of issues that students may not thoroughly cover during their time here. This includes not only the scientific basis of current practice, but also a range of practical issues that are frequently only taught by 'modeling' more senior care-givers (dealing with difficult news/families/patients, the dying patient, dealing with an error/mistake/bad outcome, giving bad news, etc.). The day will focus on a clinical topic with legal, ethical, economic, and societal themes. The hope is to provide a global view of several topics, provide practical tips, and address

issues that are frequently seen regardless of which field of medicine the student pursues. Examples include management and care of the aging, pain management, sexual dysfunction, cultural competency, cancer care, disability management and rehabilitation, and disaster medicine.

Competences Covered in this Clerkship:

*Cultural Competency Session (Dr. Fern Hauck)*

Knowledge: (Domain II-K2, K3; Domain III-K1, K3, K5, K6; Domain IV-K1, K2, K5; Domain V-K1, K2, K3, K4, K5)

Competencies are met through small group discussions and activities and panel discussions made up of community experts.

Attitudes: (Domain I-A1, A2, A3; Domain II-A1, A2, A3, A4; Domain III-A2, A3, A4, A5; Domain IV- A2, A3; Domain V-A1, A2)

Competencies are met through small group discussions and activities and panel discussions made up of community experts.

Skills: (Domain I- S1; Domain II-S2, S3, S4; Domain III-S1, S2, S5; Domain IV- S2; Domain V-S1, S2, S3, S4, S5)

Competencies are met through small group discussions and activities and panel discussions made up of community experts.

*Sexual Health Session (Dr. Dana Redick)*

Knowledge: (Domain I- K2, K3; Domain II-K2; Domain III-K1, K2, K3, K4, K5; Domain IV-K1, K2, K3, K4, K5, K6; Domain V- K1, K2, K3)

Competencies are met using lectures, small group discussions, live patient videos/interactions, panel discussions with question/answer sessions, and web-based and written handouts. Please note that a broad interpretation of “culture” is used here since session deals with sexual health practices.

Attitudes: (Domain I-A2, A3; Domain II-A1, A2; Domain III-A1, A2, A4, A5; Domain V- A1, A2)

Competencies are met using lectures, small group discussions, live patient videos/interactions, panel discussions with question/answer sessions, and web-based and written handouts. Please note that a broad interpretation of “culture” is used here since session deals with sexual health practices.

Skills: (Domain I-S1, S2; Domain II-S2, S3, S5; Domain III-S2, S3, S5, S6; Domain IV-S2, S3, S4; Domain V-S1, S2)

Competencies are met using lectures, small group discussions, live patient videos/interactions, panel discussions with question/answer sessions, and web-based and written handouts. Please note that a broad interpretation of “culture” is used here since session deals with sexual health practices.

*Is Technology Changing the Doctor/Patient Relationship? Session (Karen Knight, Librarian)*

Knowledge: (Domain II-K3; Domain III-K3, K4; Domain IV- K3, Domain V- K2)

Competencies are met using a small group format.

Attitudes: (Domain I-A2; Domain II-A1, A2)  
Competencies are met using a small group format.

Skills: (Domain II-S2, S5; Domain V-S2)  
Competencies are met using a small group format.

Evaluation:

There is no formal evaluation for these one-day sessions. However, attendance has been deemed mandatory by the Curriculum Committee and the Dean's Office of the School of Medicine. The student will be required to electronically sign-in and sign-out of each session using a personalized Clinical Connections ID card. The student must attend the full day to receive credit for each session. Failure to complete the session, by attending the entire days session, will result in a written remediation assignment on a topic assigned by the course director.

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## **Pediatrics**

Competences Covered in this Clerkship:

Knowledge: (Domain II-K4, K5; Domain III-K1; Domain IV-K1, K2)

Attitudes: (Domain II-A2, A3, A4; Domain V-A1)

Skills: (Domain II- S2, S3; Domain V- S1, S3)

Evaluation:

1. Evaluation by Preceptor: The house staff & faculty with whom they work will evaluate each student's performance. Evaluation forms on each student will be electronically submitted to the Pediatric Education Office. Students can make appointments to review evaluations as the rotation progresses.
2. Final Exam: The final exam is given in two parts. The first part is the Pediatrics Subject Examination compiled by the National Board of Medical Examiners (NBME). This is a closed-book test administered under the guidelines of the NBME. The second part of the examination, given on the same day after the subject examination, is an essay examination. At the beginning of this portion of the examination, each student will be given 4 of the original 20 essay questions which are included in this handout, of which he/she will choose 2 to answer. The Pediatrics Subject Exam will count 80% of the exam grade, and the essay questions will count 20% of the exam grade. The overall exam score constitutes 25% of the final grade.

## Obstetrics/Gynecology

### Competences Covered in this Clerkship:

Knowledge: (Domain I-K2; Domain II-K1, K2; Domain III- K2, K3, K4; Domain IV-K1, K2, K3, K4, K5, K6; Domain V- K1, K2, K3, K4, K5, K6)

Competencies are met through Orientation Day, AM reports, teaching rounds, OR/surgery, lectures, outpatient and inpatient clinics, and labs. Clerkship director noted the only thing not taught is a description of cross-cultural communication models.

Attitudes: (Domain I- A1, A3; Domain II-A2, A3, A4; Domain III-A1, A2, A3, A4, A5; Domain IV-A1, A2, A3; Domain V-A1, A2)

Competencies are met through Orientation Day, AM reports, teaching rounds, OR/surgery, lectures, outpatient and inpatient clinics, and labs.

Skills: (Domain I-S1; Domain II-S2; Domain III-S3, S5; Domain IV-S1, S3, S4; Domain V-S1, S2, S3, S4, S5)

Competencies are met through Orientation Day, AM reports, teaching rounds, OR/surgery, lectures, outpatient and inpatient clinics, and labs. Clerkship director noted that methods to identify community leaders were not taught.

### Evaluation:

1. Clinical Evaluations: Oasis evaluations completed by residents & attendings. These count as 45% of the final grade.
  2. Final Exam: Knowledge portion, making up 25% of the final grade
  3. OSCE: At the end of the clerkship each student will be expected to complete an Observed Structured Clinical Exam (OSCE) as part of their grade. The exam will have six eight-minute stations to complete. Some stations may be interactive in nature. This counts for 10% of the total grade.
  4. H&P Write-Up: Two write-ups are required to be turned in at the time of your exam. One on an obstetrical patient and one on a gynecological patient. The format should cover: history, expanded OB history for OB patient or expanded pertinent GYN history for GYN patient, physical examination, labs/diagnostic tests, assessment, plan, discussion and a one-page discussion of a topic relative to a specific patient. The two write-ups count for 10% of the final grade.
  5. Attendance and Case Presentation: During the rotation, students expected to prepare a formal eight-minute talk on an OB/GYN topic. The topic may be of the student's choosing but should be sufficiently narrow that it can be well presented in the time allowed. Residents, as well as the entire faculty, are available to assist with topics. This presentation along with attendance counts for 10% of the final grade.
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## Psychiatry

### Competences Covered in this Clerkship:

Knowledge: (Domain I- K2; Domain II-K2, K3, K4, K5; Domain III- K1, K2, K3, K4, K5, K6; Domain IV-K1, K2, K3, K4, K5, K6; Domain V-K1, K3, K4, K5, K6)

Some of the above competencies are preceptor-dependent (refer to grid) so not all students will meet them. In addition, a few of the knowledge competencies are met not only through the clinical settings but during lectures as well.

Attitudes: (Domain I- A1, A2, A3; Domain II- A1, A2, A3, A4; Domain III- A1, A2, A3, A4, A5; Domain IV- A1, A2, A3; Domain V- A1, A2)

Most of the above competencies are preceptor-dependent (refer to grid) so not all students will meet them.

Skills: (Domain I- S1; Domain II-S1, S2, S3, S4, S5; Domain III- S1, S2, S3, S4, S5; Domain IV- S1, S3; Domain V- S1, S2, S3, S4, S5)

Most of the above competencies are preceptor-dependent (refer to grid) so not all students will meet them.

### Evaluation:

1. Clinical Work: This grade is determined by evaluations submitted by the attendings and residents with whom the student worked. Clinical knowledge, skills, and judgment will be assessed as well as professionalism, attitude towards work, and interpersonal skills. This counts for 50% of the total grade.

2. Psychiatric Medicine Shelf Exam: This is a standardized national exam. It will count for 50% of the total grade.

## **Appendix 2**

### **Cultural Competency in the Medical Curriculum Advisory Committee Members**

Associate VP for Diversity and Equity at UVA: Marcus Martin

Associate Dean for Curriculum: Donald Innes

Claude Moore Health Sciences Library: Kelly Near

Dean's Office for Diversity: Wendi El-Amin and M. Norman Oliver

Ed Howell's Intern: Thomas Saul

Education Support, POM-2: Darci Lieb

Internal Medicine: Elizabeth Bradley and Preston Reynolds

Language Services: Sally LeBeau

Medical Education: Anne Chapin and John Jackson

Medical Humanities: Marcia Childress

Nursing and Nursing School: Rebecca Lewis, Cindy Westley, Sarah Farrell, Kathryn Laughon, Ishan Williams

POM-1 and Ethics: Walt Davis, Robin Stevens

Religion/Spiritual: Richard B. Haines, Chaplain

Residents: Katrina Tsang and Amiesha Panchal (Family Medicine)

Social Issues in Medicine: Mohan Nadkarni, MD and Dela Alexander (Coordinator)

Student: Grace Milad

UVA Health Resource Center: Laura Humbertson

Chair/Facilitator: Fern R. Hauck

Administrative Support: Chris Patrick

## **Appendix 3**

### **Cultural Competency in the Medical Curriculum Advisory Committee – Subcommittee Members**

Defining Competencies: Fern R. Hauck, Darci Lieb, Kathryn Laughon

Evaluation: Elizabeth Bradley, Kelly Near, Norm Oliver, Ishan Williams

Liaison: Laura Humbertson, Cindy Westley

Resources: Marcia Childress, Sarah Farrell

Faculty Development: Walt Davis, Richard Haines, Donald Innes

## Appendix 4

### Cultural Competency in the Medical Curriculum Advisory Committee Summary May 13, 2008

The evaluation subcommittee of the Cultural Competency in the Medical Curriculum Advisory Committee met recently with Elizabeth Bradley to go over the evaluation plan outlined for the HRSA grant project. Group members reviewed the outcomes that were to be measured for the project and discussed with Ms. Bradley how specific interventions reviewed by the subcommittee could best be incorporated into this outline.

Subcommittee members have already surveyed recent literature on the evaluation of cultural competency interventions in physician training and concur that the best available overview of interventions comes from a systematic review of cultural competence training of health professionals done by Beach et al in 2003<sup>1</sup> These authors found there was “excellent evidence that cultural competence training improves the knowledge of health professionals and good evidence that cultural competence training improves the attitudes and skills of health professionals.” That being said, the same researchers<sup>2</sup> found in another review of self-administered instruments used to measure cultural competence, that most of these instruments had not be rigorously evaluated. In that review, published in 2007, the authors note that educators have limited access to valid and reliable tools to measure cultural competence training.

Since there is this paucity of information on the best tools to use to measure the effectiveness of training in cultural competency interventions, subcommittee members looked at various programs described in the systematic review and found that one, initiated by Crandall, et al at Wake Forest University School of Medicine (WFUSM)<sup>3</sup> was of special interest. This study, done with pre doctoral students, was described by Beach, et al, as an example of an intervention that provided significant beneficial effect on the students’ overall cultural knowledge, attitudes and skills. The educators at WFUSM used a theoretically based training course for second year students but specific portions of their training could easily be used in any of the workshops proposed as an approach for measuring training in the HRSA grant. That an overlying theory was guiding training was of special interest to subcommittee members. The frameworks used to design course objectives and educational experiences and to help determine changes in students’ knowledge, skills and attitudes are outlined below.

Model			
Howell <sup>32</sup>	Bennett <sup>35</sup>	Culhane-Pera et al. <sup>27</sup>	Stage-specific Developmental Response
Unconscious incompetence (Level 1)	Denial (Stage 1)	No insight about the influence of culture on medical care (Level 1)	Clinician recognizes that first-generation Latino patients differ culturally from those born in the United States, but not that they differ culturally from one another <sup>34</sup>
Conscious incompetence (Level 2)	Defense/ minimization* (Stages 2 and 3)	Minimal emphasis on culture in medical setting (Level 2)	Clinician considers patient autonomy as universally accepted form of ethical and professional behavior <sup>34</sup>
Conscious competence (Level 3)	Acceptance (Stage 4)	Acceptance of the roles of cultural beliefs, values, and behaviors on health, disease, and treatments (Level 3)	Clinician believes that a patient with different health beliefs is vital to the negotiation and planning process in his or her own care <sup>34</sup>
Unconscious competence (Level 4)	Adaptation (Stage 5)	Incorporation of cultural awareness into daily medical practice (Level 4)	Clinician incorporates "help me understand questions" into every aspect of the patient/clinician communication process (Kleinman's Explanatory Model) <sup>47</sup>
Unconscious supercompetence (Level 5)	Integration (Stage 6)	Integration of attention to culture into all areas of professional life (Level 5)	Clinician lacks strong cultural identification and has the ability to unconsciously adjust to a wide range of cultural beliefs <sup>34</sup>

\*These two stages were grouped together because of their similar stage-specific development responses.

The article describing Wake Forest's training is attached.

To evaluate the theory based curriculum which included readings, critical and reflective journals, essays, and observed interviews using interpreters, the WFUSM program used the Multicultural Assessment Questionnaire (MAQ). The MAQ is a 16-item Likert-scale instrument designed by Culhane-Pera and colleagues that consists of specific knowledge, skill and attitude objectives that help learners achieve Stage 3 of Culhane-Pera's adaptation model. The pre and post-course Cronbach's alpha for the MAQ was 0.88 and 0.89 respectively. Within the framework of the HRSA approach, this instrument could be introduced during a workshop or during the Social Issues in Medicine (SIM) course and students' post assessment could be completed after another workshop in their second or third year.

Subcommittee members agree that increasing students' awareness of a lack of insight or their "unconscious incompetence" is essential to any movement to a higher skill and knowledge level. The Implicit Association Test (IAT) (<https://implicit.harvard.edu/implicit/>) is one method that has been well researched for its use in measuring implicit or automatic attitudes. This tool could potentially be used by students to gain greater awareness of their own unconscious preferences and beliefs. As such, subcommittee members would recommend its use at an early point in students overall training.

In addition to overall assessment of students' progress in reaching a level of acceptance of the roles of cultural beliefs in healthcare as outlined Culhane-Pera's third stage in the WFUSM training, the HRSA project's measurement approach includes assessment of student cultural competence using discrete clinical skill OSCE. There is some agreement, according to Dogra<sup>4</sup> that reflective journal writing and OSCEs are methods preferred by key stakeholders in medical education on the teaching and learning of cultural diversity. Educators at Maimonides Medical Center have described their formative Culture OSCE that has been in use since 1999<sup>5</sup> and this model could be used for evaluation here as well. The Maimonides OSCE includes stations that were designed based on reviews of the literature to identify relevant competencies and real situations

experienced in their hospital. Still, there are continuing questions about whether it is best to have a separate cultural OSCE, as this may potentially marginalize the topic and promote stereotypes, or whether to spread cultural information throughout other OSCEs in the curriculum, as this may limit opportunity for focused teaching. Regardless, as with any OSCE, learning goals should be clear, concise, and effectively communicated to faculty and SPs so their feedback can be standardized and specific.

Another outcome measure proposed for the HRSA grant would be the creation of new modules in the Clinical Practice Exam (CPX) at the end of the third year. Many entities, like the National Medical Association, (<http://www.medscape.com/viewprogram/12540?src=mp&spon24&uac=28159BZ>) and the Office of Minority Health (<http://www.thinkculturalhealth.org/>) have developed comprehensive, online multimedia, case-based curricula designed to help clinicians better meet the cultural and linguistic needs of diverse patient populations and these modules could be used to help inform the development of local workshops and exams. Certainly, the subcommittee would recommend correlating the learning goals outlined in any new CPX modules with those from any specific cultural OSCEs and then, ultimately, connecting them all to a meaningful theoretical framework such as that outlined by the WFUSM described above.

1. Beach MC, Price EG, Gary TL, et al. Cultural competence: A systematic review of health care provider educational interventions. *Med Care*. 2005;43:356-373.
2. Gozu A, Beach MC, Price EG, et al. Self-administered instruments to measure cultural competence of health professionals: A systematic review. *Teach Learn Med*. 2007;19:180-190.
3. Crandall SJ, George G, Marion GS, Davis S. Applying theory to the design of cultural competency training for medical students: A case study. *Acad Med*. 2003;78:588-594.
4. Dogra N, Wass V. Can we assess students' awareness of cultural diversity? A qualitative study of stakeholders' views. *Med Educ*. 2006;40:682-690.
5. Aeder L, Altshuler L, Kachur E, et al. The "culture OSCE"--introducing a formative assessment into a postgraduate program. *Educ Health (Abingdon)*. 2007;20:11.

## Appendix 5

### RESOURCES for LEARNING CULTURAL AWARENESS/COMPETENCY

#### fiction, nonfiction, memoir, policy, film

##### General

Lynn Payer, *Medicine and Culture*

Robert Coles, *The Call of Service: A Witness to Idealism*

Talmadge E. King, Jr., and Margaret B. Wheeler, et al. *Medical Management of Vulnerable and Underserved Populations: Principles, Practice, and Populations*. McGraw Hill/Lange, 2007

##### Immigrant

Anne Fadiman, *The Spirit Catches You and You Fall Down* (nonfiction)

Khaled Hosseini. *The Kite Runner* (novel)

Khaled Hosseini, *A Thousand Splendid Suns* (novel)

Jhumpa Lahiri, *Interpreter of Maladies* (short stories)

Jhumpa Lahiri, *The Namesake* (novel)

Jhumpa Lahiri, *Unaccustomed Earth* (short stories)

Susan Onthank Mates, *The Good Doctor* (short stories)

William Carlos Williams, *The Doctor Stories* (short stories and poems)

Maren Grainger-Monsen, "Hold Your Breath" (film)

##### African American

Ernest Gaines, *A Lesson Before Dying* (novel)

Ernest Gaines, *A Gathering of Old Men* (novel)

Zora Neale Hurston, *Their Eyes Were Watching God* (novel)

Toni Morrison, *The Bluest Eye* (novel)

Marion Gray Secundy (ed), *Trials, Tribulations, and Celebrations: African American Perspectives on Health, Illness, Aging, and Loss* (anthology)

##### Hispanic

Gabriel Garcia Marquez, *Love in the Time of Cholera* (novel)

Isabelle Allende, *Paula* (memoir)

Helena Maria Viramontes, *The Moths and Other Stories* (short stories)

Harriet Doerr, *Stones for Ibarra* (novel)

Shanna R. Cox, "Everything," *JAMA* (A Piece of My Mind), June 2002 (memoir)

Walter Salles, "The Motorcycle Diaries" (film)

Julie Taymor, "Frida" (film)

Alfonso Arau, "Like Water for Chocolate" (film)

##### Native American

Lori Arviso Alvord (with Elizabeth Cohen Van Pelt), *The Scalpel and the Silver Bear* (autobiography)

N. Scott Momaday, *The Way to Rainy Mountain* (memoir)

John G. Neihardt, *Black Elk Speaks: Being the Story of a Holy Man of the Oglala Sioux* (memoir)

Shetal Shah, "Five Miles from Tomorrow," *JAMA* (A Piece of My Mind), Oct 2000 (memoir)

##### Gay issues, including HIV/AIDS

Randy Shilts, *And the Band Played On* (nonfiction and film)

Abraham Verghese, *My Own Country* (memoir)  
Kate Scannell, *Death of the Good Doctor* (memoir)  
Peter Selwyn, *Surviving the Fall: The Personal Journey of an AIDS Doctor* (memoir)  
Richard D. Mohr, *Gay Ideas: Quiing and Other Controversies* (nonfiction, policy)  
Sharon Oard Warner (ed), *The Way We Write Now: Short Stories from the AIDS Crisis* (short stories)  
Mark Massi, "Silverlake Life" (film)  
Ron Bayer and Gerald Oppenheimer (eds), *AIDS Doctors: Voices from the Epidemic: An Oral History* (interviews)  
Alice Elliott Dark, "In the Gloaming," *In the Gloaming* (short stories)  
Harold Brodkey, *This Wild Darkness* (memoir)

#### Poverty

David Shipler, *The Working Poor: Invisible in America* (nonfiction, policy)  
David Wendell Moller, *Dancing with Broken Bones: Portraits of Death and Dying Among Inner-City Poor* (nonfiction)  
David Hilfiker, *Healing the Wounds* (memoir)  
David Hilfiker, *Not All of Us Are Saints* (memoir)  
David Hilfiker, *Urban Injustice: How Ghettos Happen* (policy)  
Mindy Thompson Fullilove, *Root Shock: How Tearing Up City Neighborhoods Hurts America, and What We Can Do about It* (policy)  
Barbara Ehrenreich, *Nickel and Dimed: On Not Getting By in America* (memoir)  
Kaye Gibbons, *Ellen Foster* (novel)  
Dorothy Allison, *Bastard Out of Carolina* (novel)  
Flannery O'Connor, *Collected Stories* (short stories)

#### Global health

Paul Farmer, *Infections and Inequalities: The Modern Plagues* (policy)  
Paul Farmer, *AIDS and Accusation: Haiti and the Geography of Blame* (policy)  
Paul Farmer, *Pathologies of Power: Health, Human Rights, and the New War on the Poor* (policy)  
Tracy Kidder, *Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, a Man Who Would Cure the World* (biography)  
Adam Ashforth, *Madumo, A Man Bewitched* (biography)  
Paul Linde, *Of Spirits and Madness: An American Psychiatrist in Africa* (memoir)  
Damon Galgut, *The Good Doctor* (novel)  
J. M. Coetzee, *Disgrace*  
John Murray, *A Few Short Notes on Tropical Butterflies: Stories* (short stories)

#### Political oppression, violence, and torture

Carolyn Forché, *Against Forgetting: Twentieth Century Poetry of Witness* (poetry)  
Edwidge Danticat, *Krik! Krak!* (short stories)  
Edwidge Danticat, *The Farming of Bones* (novel)  
Edwidge Danticat, *Breath, Eyes, Memory* (novel)  
Edwidge Danticat, *Brother, I'm Dying* (memoir)  
Bernhard Schlink, *The Reader* (novel)

#### Religious traditions

The Park Ridge Center, *Religious Traditions and Health Care Decisions Handbook Series* (policy covering the world's major faith traditions; out of print since 2003, but available in library of UVA Center for Biomedical Ethics and Humanities)