

2014 EDITION

MEDICAL EDUCATION ELECTIVE



**THE TEACHING AND LEARNING CENTER
YALE SCHOOL OF MEDICINE**

COURSE DATES

September 22 to October 3, 2014

Course Directors:

Janet Hafler, EdD

Geoff Connors, MD

Stephen Holt, MD, MSc

Faculty Participants:

David Berg, PhD
James (Jay) Bonz, MD
Geoff Connors, MD
Dana Dunne, MD
John Encandela, PhD
Michael Green, MD, MSc
Janet Hafler, EdD
Stephen Holt, MD, MSc
Susan Kashaf, MD, MPH
Tony Kim, MD
Gary Leydon
John Moriarty, MD
Doruk Ozgediz, MD, MSc
Donna Windish, MD, MPH

Acknowledgments

A special thank you to:

Student Co-Founders

Michael Peluso, YSM 2013
Adam Sang, YSM 2013
Alexandra Ristow, YSM 2013

The Teaching and Learning Center:

Dorothy DeBernardo

Syllabus and Schedule

Abstract

The word “doctor” is derived from the Latin *docēre*, which means, “to teach.” Indeed, the role of physicians as care providers is deeply intertwined with their role as teachers - of patients, of students, and of peers. Both the LCME and the ACGME indicate that residents should be prepared to teach and evaluate medical students, and a link between perceived teaching ability and clinical competence has been demonstrated. Even though medical students are enthusiastic about their future role as teachers and the value of skill development in this area has been discussed in the literature, few institutions offer structured programs to train medical students as teachers. While many informal opportunities exist, the development of formal training programs is crucial. Here, we propose the development of a novel 2-week Medical Education elective rotation at the Yale School of Medicine. The overall objective of this rotation is to introduce medical students to their role as teacher before they begin residency and better prepare them for this role. It will make use of didactic lectures, observation, group exercises, and teaching activities with the help of a diverse and talented set of faculty in order to facilitate the development of the knowledge, skills, and attitudes necessary to help our students develop their experience and identity as teachers as they transition from medical school into residency.

Overarching Goals for the Elective

1. To observe and learn from role models in the field of medical education and describe the characteristics of effective teachers.
2. To describe the current state of medical education, with a focus on educational theory and evidence derived from the medical education literature.
3. To develop specific skills that will allow students to teach more effectively in various clinical and classroom scenarios that they will experience during their residency.
4. To explore how students can integrate their roles as clinician and educator regardless of career goals.
5. To develop the attitudes which place a strong emphasis on the value of medical education.
6. To elevate the status of teaching at Yale University School of Medicine.

Assessment

Assessment will be built into the elective through self-reflection and verbal and written feedback from peers and faculty. These will include homework assignments (reflection) or feedback in group exercises and teaching activities. Students will also be asked to self-rate their previous knowledge of and exposure to each of the topics described in the course.

All students will complete a set of four (4) Observed Structured Teaching Encounters (OSTEs) at the end of the course. Faculty facilitators will directly observe them.

MEDICAL EDUCATION ELECTIVE
Day 1 – Introduction and Background
Monday, September 22, 2014
8:00AM-4:00PM

Reading (to be done in advance)

Arseneau et al. The developmental perspective. Chapter 6. In: Pratt DD. *Five Perspectives on Teaching in Adult and Higher Education*. Malabar FL: Kreiger Pub, 1998.

Cooke et al. American medical education 100 years after the Flexner Report. *NEJM* 2006; 355: 1339-1344.

Class Schedule

| | | | |
|-------------|----------|--|---|
| 8:00-8:50 | ESHA 205 | Welcome and Introduction (Hafler/Connors/Holt) | |
| 9:00-9:50 | ESHA 205 | Lecture | What Makes a Great Teacher? - Attitude, Audience, and Aim (Connors) |
| 10:00-11:30 | ESHA 205 | Lecture | Foundations of Teaching & Observation and Feedback (Hafler) |
| 11:30-12:30 | ----- | Lunch | ----- |
| 12:30-1:00 | ESHA 205 | Prepare For Extemporaneous Teaching | |
| 1:00-4:00 | ESHA 205 | Activity | Extemporaneous Teaching (Connors/ Holt) |

Students will give a 5 minute unrehearsed, spontaneous talk on a non-medical topic of their choosing. Students will use minimal props and teaching tools, and rely mostly on speaking alone. Audience members will observe the student for effectiveness of teaching. Afterwards, the group will provide feedback to the presenter.

Homework (for tomorrow)

Write a brief (1 page) reflection on what you believe to be your three greatest strengths and three greatest weaknesses as a teacher.

Read articles listed at top of Day 2 schedule.

MEDICAL EDUCATION ELECTIVE
Day 2 – Foundations of Medical Education
Tuesday, September 23, 2014
8:00AM-4:00PM

Reading (to be done in advance)

Cousteau V. Swimming with sharks. Perspectives in Biology and Medicine. Summer, 1973.

Hafler J. Effective presentations: tips for success. Nature Immunology, Volume 12, Number 11, November 2011.

Class Schedule

| | | | |
|-------------|----------|------------------------------|---|
| 8:00-8:50 | ESHA 205 | Debrief and discuss readings | |
| 9:00-9:50 | HOPE 110 | Observation | First Year Lecture Cell Biology (Takizawa) |
| 10:00-10:50 | ESHA 205 | Debrief/Discussion | Effective Didactic Teaching (Hafler/Connors) |
| 11:00-11:50 | ESHA 205 | Lecture | Knowing Your Audience and Barriers to Good Teaching (Connors) |
| 11:50- 1:00 | ESHA 205 | Lecture/Lunch | Power Dynamics in Medical Education (Berg) |
| 1:00-1:50 | | | Simulation Theory and Design (Bonz) |
| 2:00-4:00 | | | Writing the case simulation (study on own) |

Homework

Brainstorm topics/begin to prepare your chalkboard talk for Friday.

Read articles listed at top of Day 3 schedule.

MEDICAL EDUCATION ELECTIVE
Day 3 – Giving and Receiving Feedback
Wednesday, September 24, 2014
8:00AM-3:00PM

Reading (to be done in advance)

Branch et al. Feedback and reflection: teaching methods for clinical settings. *Academic Medicine*. 2002;77:1185-1188.

Ende et al. Feedback in clinical medical education. *JAMA*. 1983;250(6):777-781.

Rider et al. Giving constructive feedback. *JAMA*. 1995;274(11):867.

Class Schedule

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|-------------|--|------------------|--|
| 8:00-8:20 | ESHA 205 | Discuss Readings | |
| 8:30-9:20 | ESHA 205 | Discussion | Effective/Ineffective Teaching in Morning Report (Hafler/Connors/Holt) |
| 9:30-10:30 | YNHH-EP 9 th Floor | | Medicine Morning Report (Connors) |
| 11:00-12:15 | ESHA 205 | Lecture | Giving Feedback (Moriarty/Encandela/Kashaf) |
| 12:15-12:50 | ----- | Lunch | ----- |
| 1:00-3:00 | Practice Rm. ESH 10 Practice Rm. ESH 11 Practice Rm. ESH 12 Practice Rm. ESH 13 | | Giving Difficult Feedback |

The class will participate in several role-play scenarios involving the need to give difficult feedback on a student's knowledge, attitude, or skills.

Homework (for tomorrow and Friday)

Develop a 7-minute chalkboard talk on a medical topic or an audience of 4th year medical students.

For your chalkboard talk, develop 3 learning objectives. Type them out on a sheet of paper and bring them for Friday 9/26.

Bring one (1) patient case that you have written up or presented during a third year clerkship or sub-internship to class for tomorrow. Have the case printed out, and be prepared to present this case during the session on the one-minute preceptor model.

Bring a copy of your CV to class on September 25th.

Read article listed at top of Day 4 schedule.

MEDICAL EDUCATION ELECTIVE
Day 4 – Challenges in Medical Education - *REVISED*
Thursday, September 25, 2014
8:00AM-4:00PM

Reading (to be done in advance)

Simpson et al. Advancing educators and education: defining the components and evidence of educational scholarship. Summary report and findings from the AAMC Group on Educational Affairs Consensus Conference on Educational Scholarship. Washington, DC, 2007.

Class Schedule

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|-------------|----------|---------|---|
| 8:30-10:30 | ESHA 205 | Debrief | (Connors/Holt) |
| 10:30-11:30 | ESHA 205 | Lecture | Educator Portfolio/Educational Scholarship (Hafler) |
| 11:45-12:45 | ----- | Lunch | ----- |
| 1:00-4:00 | ESHA 205 | | Diagnosing the difficult learner or giving difficult feedback (Windish) |

Homework (by Sunday night)

Develop a simulation session for a scenario in emergency medicine with your group.
Email the scenario chart to james.bonz@yale.edu by Sunday night September 28.

(by tomorrow)

Read articles listed at top of Day 5 schedule.

MEDICAL EDUCATION ELECTIVE
Day 5 – Teaching in Different Settings
Friday, September 26, 2014
7:30AM-4:00PM

Reading (to be done in advance)

Janicik et al. Teaching at the bedside: a new model. Med Teach 2003;25(2): 127-130.

AAMC Institute for Improving Medical Education. Effective use of educational technology in medical education. March 2007.

Class Schedule

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|-------------|----------|-------------|---|
| 7:30-9:30 | YNHH | Observation | Work Rounds (Connors) |
| 9:30-10:30 | ESHA 205 | Discussion | Debrief of Effective Teaching on Work Rounds (Connors) |
| 10:45-12:00 | ESHA 205 | Activity | Technology in Teaching and Writing Good Survey Questions (Leydon/Encandela) |
| 12:00-12:30 | ----- | Lunch | ----- |
| 12:30-4:00 | ESHA 205 | Activity | Chalkboard Talk (Connors/Holt) |

Technology in Teaching and Assessment

The session will begin with a brief overview of contemporary learning technologies including mobile devices, instructional websites, blended learning, flipped classroom, virtual patients, online video, and telemedicine. This will be followed by a discussion of approaches to designing surveys for assessment. The session will conclude with a hands-on experience in which teams of students will be given a description of a curriculum for which they will build an assessment using Qualtrics, the survey tool licensed by Yale University. <https://yalesurvey.qualtrics.com>

Chalkboard Talk

Students will give a 7-minute white board presentation on a medical topic of their choosing. It will be recorded. Afterwards, the student will watch the recording in private while the audience discusses the presentation. Then, one or two designated audience member critics will give feedback to the student about his or her presentation and teaching skills.

Homework (for Monday)

Write a 1-page reflection paper on your chalkboard talk, indicating areas of success and for improvement. Sign up for physical exam maneuver for the session on October 1.

Read articles listed at top of Day 6 schedule.

MEDICAL EDUCATION ELECTIVE
Day 6 – Technology in Medical Education
Monday, September 29, 2014
8:00AM-4:00PM

Reading (to be done in advance)

Fanning et al. The role of debriefing in simulation-based learning. Simulation in Healthcare. 2007;2(2):115-125.

Rudolph et al. There's No Such Thing as "Nonjudgmental" Debriefing: A Theory and Method for Debriefing with Good Judgment. Simulation in Healthcare, Volume 1, Number 1, Spring 2006.

Class Schedule

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|-------------|------------|---------------------------------|--|
| 8:00-9:00 | ESHA 205 | Discuss Articles (Connors/Holt) | |
| 9:00-9:50 | ESHA 205 | Lecture | Brief Tips for PowerPoint Presentations (Connors) |
| 10:00-11:50 | ESHA 205 | Activity | Chart Stimulated Recall and Outpatient Teaching (Holt) |
| 11:50-12:50 | ----- | Lunch | ----- |
| 1:00-4:00 | Sim Center | Activity | Executing Simulations (Bonz) |

Homework (for tomorrow)

Prepare PowerPoint Presentation

Read articles listed at top of Day 7 schedule.

MEDICAL EDUCATION ELECTIVE
Day 7 – Teaching in Different Settings - *REVISED*
Tuesday, September 30, 2014
8:00AM-4:00PM

Reading (to be done in advance)

Gladwell M. Chapter 7: The ethnic theory of plane crashes. In: Outliers: The Story of Success. pp. 177-223. Little, Brown and Company. New York, 2008.

Iwaszkiewicz et al. Efforts to enhance operating room teaching. Journal of Surgical Education. 2008;65(6):436-440.

Class Schedule

| | | | |
|-------------|----------|----------------------------|---|
| 8:00-9:00 | ESHA 205 | Discuss Articles (Connors) | |
| 9:00-9:50 | ESHA 205 | Discussion | Debrief on Simulation Sessions from 9/29 (Connors) |
| 10:00-10:50 | ESHA 205 | Discussion | Effective Teaching in the Operating Room (Kim) |
| 11:00-12:00 | ESHA 205 | Activity | PowerPoint Presentations (Connors/Hafler) |
| 12:00-12:30 | ----- | Lunch | ----- |
| 12:30-3:00 | ESHA 205 | Activity | PowerPoint Presentations Continued (Connors/Hafler) |

Homework (for tomorrow)

Write a 1-page reflection paper on your PowerPoint talk, indicating areas of success and for improvement. Reflect on the differences compared to your chalkboard talk.

Review your assigned physical exam maneuver in preparation for the physical exam teaching exercise tomorrow.

Read articles listed at top of Day 8 schedule.

In preparation for Dr. Green's session, tonight read Epstein-2007-Assessment in Medica, then tomorrow during class you will work through the Student Assessment Team Learning questions. Toward end of the session, Dr. Green will give a mini-lecture to fill in gaps and clarify key points.

MEDICAL EDUCATION ELECTIVE
Day 8 – Teaching During the Patient Encounter - *REVISED*
Wednesday, October 1, 2014
8:00AM-4:00PM

Reading (to be done in advance)

LaCombe MA. On bedside teaching. *Annals of Internal Medicine*. 1997;126:217-220.

Ramani S. Twelve tips to improve bedside teaching. *Med Teach*, 2003;25: 112-115.

Beckman TJ. Lessons learned from a peer review of bedside teaching. *Academic Medicine*, 2004;79:343-6.

Epstein RM. *Assessment in Medical Education*. *N Engl J Med*. 2007;356(4):387-396.

Green M. *Student Assessment Team Learning Questions*. October 1, 2014.

Class Schedule

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|-------------|--|---|
| 8:00-9:30 | ESHA 205 | Discuss Articles (Connors/Holt) |
| 9:30-10:20 | ESHA 205 | Lecture Strategies for Teaching a Medical Procedure (Connors) |
| 10:30-11:30 | ESHA 205 | Lecture Learner Assessment (Green) |
| 11:30-1:00 | ----- | Lunch ----- |
| 1:00-2:00 | YNHH 7-East | Observe Bedside Teaching (Holt/Connors/Dunne) |
| 2:00-4:30 | Practice Room 10 Practice Room 11 Practice Room 12 | Teaching the Physical Exam (Holt/Connors) |

This activity will be divided into two parts. During the first part, the group will be divided in two and observe a clinician teaching about a physical exam finding on a patient in the hospital. Afterwards, the group will discuss how the clinician went about teaching at the bedside. For the second part, students will be divided into groups and will rotate between the roles of teacher, patient, and learner. The “teacher” will teach their pre-assigned physical exam maneuver to the “learner,” then watch the “learner” perform the maneuver and offer feedback. The “patient” will provide feedback to the “teacher.”

Homework (for tomorrow)

Read articles listed at top of Day 9 schedule.

MEDICAL EDUCATION ELECTIVE
Day 9 – Developing and Assessing Programs - *REVISED*
Thursday, October 2, 2014
8:00AM-4:00PM

Reading (to be done in advance)

American Heart Association Method for Blood Pressure Measurement. Yale School of Medicine.

Blood Pressure Reference Card. From the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7), National Institutes of Health Publication No. 03-5231, May 2003.

Clinical Skills for Community Health Care Volunteers. Yale School of Medicine.

Jamshidi et al. Medical student teaching: peer-to-peer toolbox for time-constrained resident educators. Journal of Surgical Education. 2008;65(2):95-98.

Neher et al. The One-Minute Preceptor: Shaping the teaching conversation. Family Medicine. 2003; 35(6):391-393.

Williams et al. Blood-Pressure Measurement. New England Journal of Medicine, January 29, 2009.

Class Schedule

| | | | |
|-------------|-------------|-------------------------------|--|
| 8:00-8:30 | ESHA 205 | Debrief/Discuss Articles | (Connors/Holt) |
| 8:30-9:30 | Fitkin Aud. | Observation | Medicine Grand Rounds |
| 9:30-10:00 | ESHA 205 | Debrief | (Connors/Holt) |
| 10:00-11:00 | ESHA 205 | Lecture | Strategies for Teaching Physical Exam (Holt) |
| 11:00-12:00 | ESHA 205 | Lecture/Discussion | Assessing Programs (Encandela) |
| 12:00-12:15 | ----- | Catered Lunch Delivery | ----- |
| 12:15-1:45 | ESHA 205 | Activity | The One-Minute Preceptor – All Practice (Ozgediz) |
| 2:00-4:15: | | | |
| • 2:00-2:30 | ESH 18 | Student Training | Year 1 Medical Student Teaching BP/Vital Signs (Connors) |
| • 2:35-3:20 | TBA | Teaching Session (Groups TBA) | |
| • 3:20-3:30 | TBA | Break | |
| • 3:30-4:15 | TBA | Teaching Session (Groups TBA) | |

Homework

There is a NEJM video and handouts that would be posted for the YR1 students to review in advance as prep work. The MEDED elective students would refer to this as the guide for teaching. <http://www.neim.org/doi/full/10.1056/NEJMvcm0800157>

Read article listed at top of Day 10 schedule.

MEDICAL EDUCATION ELECTIVE

Day 10 – OSTE's

Friday, October 3, 2014

9:00AM-1:30PM

Reading (to be done in advance)

Trowbridge RL, Snyderman LK, Skolfield J, Hafler J, Bing-You RG. A systematic review of the use and effectiveness of the Observed Structured Teaching Encounter. *Medical Teacher* 2011;33(11): 893-903.

Class Schedule

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|-------------|--|----------|--|
| 9:00-11:35 | Practice Suite Rm. 10 Practice Suite Rm. 11 Practice Suite Rm. 12 Practice Suite Rm. 13 | Activity | Observed Structured Teaching Encounters (OSTEs) (Hafler/Connors/Holt/Green) |
| 11:35-11:50 | Conference Rm. 18 | | Debrief |

Homework (Forever) Be a great teacher!!