

## CULINARY MEDICINE ENRICHMENT ELECTIVE DESCRIPTION ENRH-148

### COURSE DESCRIPTION

**Course Director:** Jaclyn Albin, MD (jaclyn.albin@utsouthwestern.edu)

**Course Instructors:** Jaclyn Albin, MD, Milette Siler, RD, LD

**Department:** Pediatrics and Internal Medicine

**Student Liaisons:** Yun Liang and Lucy Cheng (Class of 2020), Kayla Robinson (Class of 2021)

#### Requirements:

Minimum participants for course to be conducted: 12 students

Maximum number of students per course: 16 students with 2 identical courses offered for a total of 32 students

#### Rationale:

Disease burden in this country is increasingly shifting toward chronic health problems that are significantly impacted by lifestyle factors, particularly nutrition and physical activity.<sup>1</sup> Despite this, physician education continues to lack adequate exposure to curricular content regarding nutrition and counseling around behavioral change, and only 25-30% of surveyed medical schools offer the 25 hours of nutritional training recommended by the National Academy of Sciences.<sup>2</sup> In addition to developing effective clinical skills around promotion of lifestyle change, future physicians will increasingly be required to demonstrate competency in regards to their ability to work in multi-disciplinary teams. Educational innovation can successfully provide more comprehensive, nutrition-centered education to medical students that investigates the importance of diet in modulating disease, fosters an appreciation for barriers to lifestyle change, and develops the skill set needed for food preparation. Utilization of a well-established Culinary Medicine curriculum developed at Tulane University and now widely implemented<sup>3</sup> will enhance the nutrition education of students at UT Southwestern while building a foundation of multi-disciplinary collaboration that revolutionizes the approach to caring for patient with chronic disease.<sup>4</sup>

#### Objectives:

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<sup>1</sup> Ng M, Marie N, Tom F, et al. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: a systemic analysis for the Global Burden of Disease Study 2013. *The Lancet*. 2014; 384: 766-781.

<sup>2</sup> Adams KM, Kohlmeier M, Zeisel SH. Nutrition Education in U.S. medical schools: latest update of a national survey. *Acad Med*. 2010 Sept;85(9):1537-42.

<sup>3</sup> Monlezun DJ, Leong B, Joo E, et al. Novel Longitudinal and Propensity Score Matched Analysis of Hands-On Cooking and Nutrition Education versus Traditional Clinical Education among 627 Medical Students. *Advances in Preventative Medicine*. 2015.

<sup>4</sup> Monlezun DJ, Kasprovicz E, Tosh KW, et al. Medical school-based teaching kitchen improves HbA1c, blood pressure, and cholesterol for patient with type 2 diabetes: Results from a novel randomized controlled trial. *Diabetes Research and Clinical Practice*. 2015; 109: 420-426.

1. Learn about the use of diet for prevention and modulation of disease
2. Understand relevance of macronutrients in both processed and prepared foods and implications in disease
3. Discuss myths and misconceptions about various diets and supplements
4. Develop practical skills necessary for meal planning and food preparation, including culinary skills.
5. Investigate causes of food insecurity and barriers to adequate, healthful nutrition

**Format:**

- Funding
  - UTSW licenses an extensive curriculum from The Goldring Center for Culinary Medicine at Tulane University; this annual fee is currently covered by funds at the Moncrief Cancer Institute at UTSW
  - Due to alignment of mission, the Moncrief Cancer Institute also offsets costs of food and dietician support in addition to ongoing efforts for education grant funding, funding from continuing education courses for faculty, and philanthropy
  - Faculty time and engagement remains voluntary and additional to usual responsibilities; there are not available resources at present to support faculty time which limits the size of the elective
- Prior to in-person modules, students will be asked to review brief, pre-session readings or videos relevant to the subject of that module
- Eight hands-on, interactive modules will be offered approximately once a month from September to May (with breaks for the winter holidays and summer); student test schedules will be utilized to determine module dates
  - The curriculum to be used has already been created by the Goldring Center of Culinary Medicine at Tulane University with curricular enhancements included by Course Directors.
  - Modules:
    - 1 – Introduction to Culinary Medicine
    - 2 – Mindfulness and Motivational Interviewing
    - 3 – Fats
    - 4 – Food Allergy & Intolerance
    - 5 – Protein, Amino Acids, Vegetarian Diet, & Eating Disorders
    - 6 – Sodium, Potassium, & Hypertension
    - 7 – Carbohydrates
    - 8 – The Pediatric Diet
- Modules will be held at approximately 5-8 pm on Tuesdays (and rarely, Thursdays, scheduled based on student testing schedules) at the UTSW School of Health Professions teaching kitchen
- There will be a mandatory OSCE at the culmination of this curriculum in either April or May which will also be planned around scheduled student examinations. Each student will be responsible for 4 scenarios with simulated patients discussing nutrition-related scenarios and counseling learned during this course. This will roughly encompass a 1 hour period of

- time and will take place in the SIM center in the West Campus. While attendance is mandatory, performance on the OSCE will have no bearing on either this elective or any other medical school course grade. The results will be used to evaluate the effectiveness of the course and promote quality improvement of the curriculum. Additionally, students will receive some feedback about their performance to help with their growth.
- Fourth-year medical students who have completed the “Cooking and Nutrition Module” during the Ambulatory Clerkship and prior graduates of the Culinary Medicine Elective who remain particularly interested in enhanced nutrition education will be invited to participate as “Culinary Medicine Peer Mentors,” similarly to the Colleges system. They will help facilitate the modules by guiding small group discussions of patient cases and providing help with practical culinary skills.

**Student Evaluation:** Grades will be pass/fail. Attendance as per below and completion of online modules are required to receive credit for this course.

**Course Evaluation:**

- Grading will be pass/fail as described above
- Students must attend 6 out of 8 cooking events and the mandatory OSCE at the end of the course to receive credit (with the very first and very last classes required to be 2 of the sessions)
- Students must complete pre-class assignments, including a pre- and post-course evaluation and survey
- Students must complete course evaluation form at the last class
- Engagement with the course quizzes, readings, articles, and other curricular resources is strongly encouraged but not required.

**Course Schedule:** offered August to May (two-semester duration)

- In August, incoming first-year medical students will be invited to apply to participate in this elective via an online survey system, and the time enrollment opens will be clearly advertised to students. After an enrollment period, a random lottery will determine the 32 students who will take the course. All students randomized to the course will be asked to confirm their spot, and the students not randomized into the course will be offered an opportunity to participate in the end-of-course OSCE and a delayed exposure to a Culinary Medicine class in the future in order to enhance their skills and promote educational assessment of the curriculum.
- Students randomized into the course will be divided into two groups of a maximum of 16 students per group. Each group will have separate modules of the exact same curriculum.
- The culinary medicine modules will be offered approximately once a month (for each group) with a break for the winter holidays and completion before summer break (August – May)
- Precise scheduling is contingent on the first-year testing schedule each year