



THE UNIVERSITY OF ARIZONA

Mel & Enid Zuckerman
College of Public Health

**Mel and Enid Zuckerman College of Public Health
University of Arizona**

HPS 635 Applied Field Methods in Global Health Nutrition

Catalog Description: This course examines the principles and methods used in nutritional assessment in clinical, public health and research settings in low and high income countries. Dietary assessment, anthropometric, clinical and biochemical techniques will be primary components. Everything from brief nutritional screening techniques to rigorous, advanced techniques for collecting the best quality data will be covered. This course will give students the tools they need to plan clinical and research nutrition assessments and to interpret the scientific literature for incorporation into an evidence-based nutrition practice. (3 units)

Course Topics:

- Dietary Assessment Methods
- Using Food and Nutrient Databases
- Dietary Reference Intakes
- Adult Anthropometry and Body Composition
- Growth and Childhood Anthropometry
- Biochemical Assessment
- Clinical Assessment
- Assessment of Protein-energy Malnutrition

Course Objectives: During this course, students will:

- Become familiar with the current best practices in dietary, anthropometric, clinical, and biochemical assessment of nutritional status.
- Know the rationales, advantages, and disadvantages of these various approaches to nutritional assessment, including comparison of the reliability and validity of different methods.
- Gain an understanding of the appropriate applications of the various methods and the interpretation of results.
- Apply this knowledge to select nutrition assessment methods for hypothetical clinical and research situations.
- Obtain hands-on experience and basic training in common anthropometric methods, use of food composition tables, and determination of anemia and selected micronutrients levels.

Learning Outcomes (Competencies Obtained): Upon completion of this course students will be able to:

1. Understand questions that can be addressed in populations using nutritional status indicators
2. Describe performance characteristics (validity, reliability, dependability, sensitivity, and specificity) of nutritional status indicators and measures and how they are assessed
3. Know means of assessing diet, energy expenditure and physical activity, body composition and growth, and micronutrient status and under what circumstances they would be used
4. Collect, analyze, and interpret nutrition assessment data of individuals and groups by manipulating class-generated data
5. Design comprehensive nutrition assessment plans (including dietary intake, anthropometrics, biochemical and medical tests, physical findings, and a patient's personal and medical history) for different clinical and research situations by completing an assessment plan for a case study

6. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate
7. Interpret results of data analysis for public health research, policy or practice
8. Assess population needs, assets and capacities that affect communities' health
9. Design a population-based policy, program, project or intervention

10. Communicate audience-appropriate public health content, both in writing and through oral presentation