

PREPARING NUTRITION EDUCATORS FOR THE FUTURE:

INCORPORATING SNEB NUTRITION EDUCATOR COMPETENCIES INTO CURRICULA

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OUTLINE

- OVERVIEW OF COMPETENCY-BASED EDUCATION
- INCORPORATING SNEB COMPETENCIES INTO CURRICULA & COURSES
 - Revising an Undergraduate Dietetics Program
 - Reorganizing a Master of Science-Dietetic Internship Program
 - Reorganizing a Coordinated Master of Science in Nutrition & Dietetics Program
- LOOKING FORWARD & RECOMMENDATIONS
- QUESTIONS & ANSWERS

DEFINITIONS

COMPETENCE:¹

The ability to make satisfactory and effective decisions or to perform a skill in a specific setting or situation

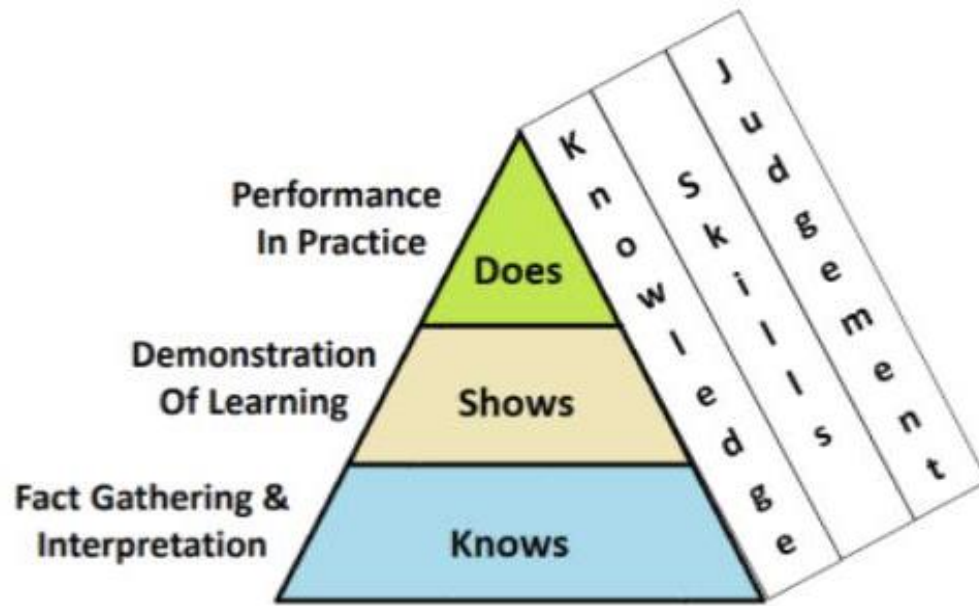
COMPETENCY:²

An observable ability, integrating knowledge, skills, values and abilities

1.Khan K., Ramachandran, S. Conceptual framework for performance assessment: competency, competence and performance in the context of assessments in healthcare—deciphering the terminology. *Med Teach* 2012; 34: 920-28.

2. Frank, J., Snell, L., Cate, O. et al. Competency-based medical education: theory to practice. *Med Teach* 2010; 32: 638-45.

COMPETENCY-BASED EDUCATION (CBE)



The CBE framework focuses on:

- Defining and measuring progress toward reaching the required competencies, described knowledge, skill and judgment needed to perform as a professional
- Different from focusing on the successful completion of required courses and supervised practice hours

Miller's Assessment Pyramid (Miller GE. The assessment of clinical skills/competence/performance. *Acad. Med.* 1990; 65(9):63-67.)

SNEB NUTRITION EDUCATOR COMPETENCIES



TERESA DRAKE

REVISING AN UNDERGRADUATE DIETETICS PROGRAM

GOALS IN REVISING UNDERGRADUATE DIETETICS CURRICULUM

- Meet ACEND accreditation standards for didactic programs
- Efficiency in curriculum
- Flexibility for students
- Integration with other majors
- Recruitment

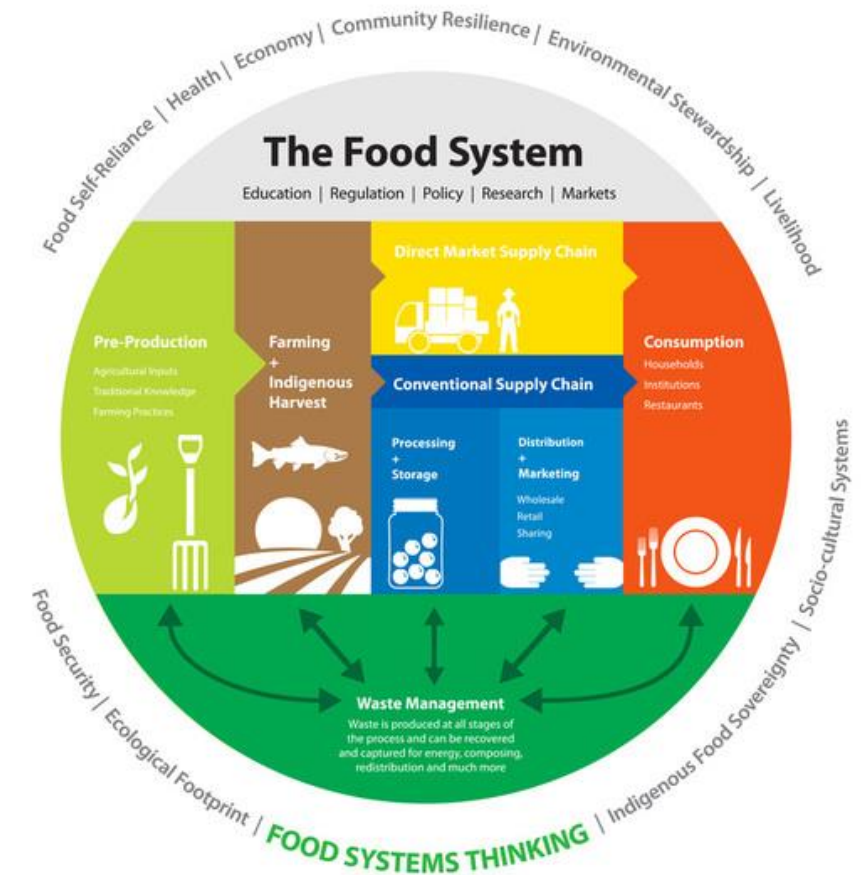
INNOVATIVE COURSE DEVELOPMENT

- RE-ENVISIONED COURSES
 - Deleted course specific to life cycle nutrition
 - Added courses specific to programs and food systems
- BETTER INTEGRATION WITHIN FAMILY AND CONSUMER SCIENCES DEPT
- BETTER ALIGNED WITH SNEB COMPETENCIES

AGRICULTURAL PRODUCTION AND FOOD SYSTEMS

FOOD RESOURCE MANAGEMENT

- Application of concepts related to decision-making, planning and budgeting, and preparation of food



Source: Southwest British Columbia Bio-Region Food System Design Project

COMPETENCIES ADDRESSED THROUGH COURSE ACTIVITIES AND ASSESSMENTS

Agricultural practices

Competency 6

- Farm tours, speakers, community garden partnerships

Packaging, marketing of food

Competency 1, 6

- Reading food labels, critically evaluating food advertising and package claims

Planning, selecting, preparing, and managing foods

Competency 2, 3

- Grocery store/farmers market tours, menu planning, preparing/shopping on a budget, preparing meals, food preservation, managing food waste

Using dietary guidelines

Competency 2

- Planning meals based on MyPlate recommendations

Basic culinary practices

Competency 3

- Knife skills, reading recipes, measuring ingredients, cooking techniques, etc.

FOOD AND NUTRITION POLICY

FAMILY PROGRAMS ACROSS THE LIFESPAN

- Exploration of local, state, and national level programs, services, and policies for families from a life span perspective



Source: US Department of Agriculture

COMPETENCIES ADDRESSED THROUGH COURSE ACTIVITIES AND ASSESSMENTS

Roles of Government Agencies

Competency 5

- Guest speakers, tours, volunteering, service learning

History and purpose of key legislation

Competency 5

- Book clubs, policy analysis

Ways to collaborate with other stakeholders

Competency 6

- Panel discussions, scenario-based problems or case studies

Nutrition across the life cycle

Competency 2

- Scenario-based problems or case studies, reflections from volunteering/service learning

BEHAVIOR AND EDUCATION THEORY PROGRAM DESIGN, IMPLEMENTATION & EVALUATION RESEARCH METHODS

Community program planning

- Assessing community needs, program planning, incorporating health behavior theory

Evaluation and research methods

- Evaluating impact of health education programs, selecting valid and reliable measures, use of statistics, and communicating outcomes to stakeholders

COMPETENCIES ADDRESSED THROUGH COURSE ACTIVITIES AND ASSESSMENTS

Behavior and education theory

Competency 7

- Use of theory constructs to develop program, application of adult learning theory

Program design

Competency 8

- Environmental scan/needs assessment, development of goals/objectives, strategies, budget, timeline

Program implementation

Competency 8

- Community partnerships, service learning

Program evaluation and research methods

Competency 8, 9, 10

- Use basic research methods including IRB application, survey development, data collection and analysis to conduct process and impact evaluation

Research methods and written/oral communication

Competency 8, 9, 10

- Interpret findings, determine implications for practice, prepare written report, present scholarship in poster and oral formats

RACHEL L. VOLLMER

REORGANIZING A GRADUATE DIETETIC INTERNSHIP PROGRAM

PERSPECTIVE OF REORGANIZING A MS-DI INTO FEM PROGRAM

- ACEND is moving to competency-based education (FEM-G Program)
- Many competencies similar to SNEB competencies
- Intentionally included some SNEB values as cross-cutting concepts throughout curriculum vs. one class
 - Nutrition Across the Lifecycle
 - Food & Nutrition Policy
 - Written, Oral, and Social Media Communication

WEAVING SNEB COMPETENCIES INTO TRADITIONAL DIETETICS COURSES

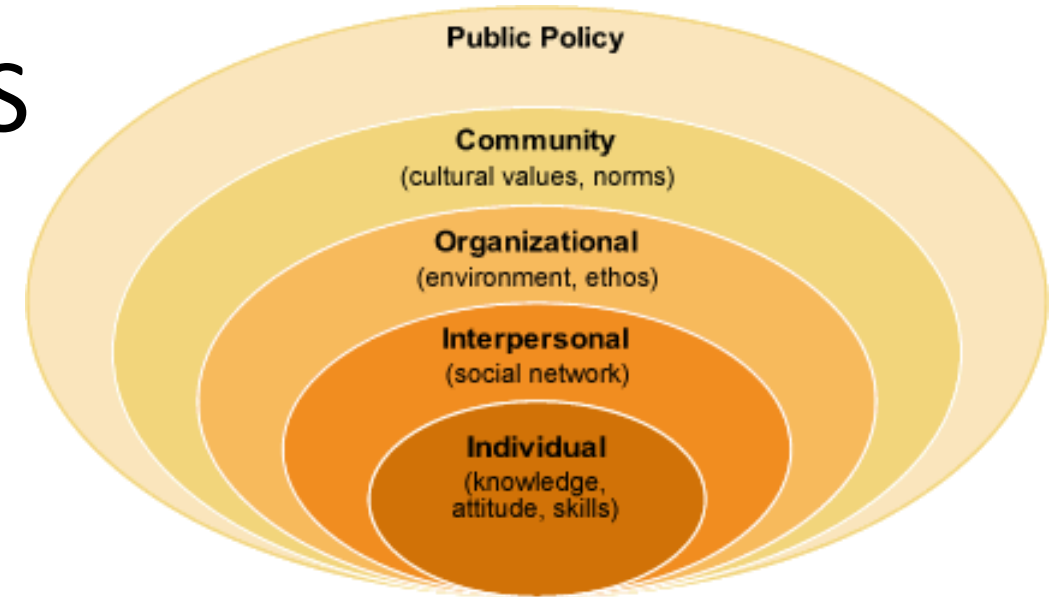
- MEDICAL NUTRITION THERAPY
- COUNSELING
- ROTATIONS



AGRICULTURE & FOOD SYSTEMS

- **FOOD SYSTEMS & FOOD SECURITY COURSE**

- Farm-to-plate perspective using Social Ecological Model
- Tour farms/facilities that represent food systems
- Evaluate policies associated with agricultural production, subsidies, food labeling, distribution, manufacturing, etc. (+ Policy)



Agricultural Production and Food Systems


Describe differences in agricultural practices and their potential effects on food choices and food availability.

Explain the effects of various food processing, packaging, distribution, and marketing practices on food availability, food choices, and nutritional value as well as the amount and types of additives, contaminants, and pathogens in foods.

Explain the relationships between natural resources (e.g. soil, water, biodiversity) and the quantity and quality of the food and water supply.

Describe ways to collaborate with other stakeholders to promote policies supporting systems that produce healthy food.

FOOD SCIENCE

 Food Science	
<input type="checkbox"/>	Describe the functions of food ingredients and food processing techniques and their effects on the nutrient content of foods.
<input type="checkbox"/>	Describe the basic types of culinary practices, including the scientific basis for how flavor, texture, and appearance of foods are created or maintained during food preparation.
<input type="checkbox"/>	Describe the potential sources of food contamination and the best practices associated with the safe handling of food.
<input type="checkbox"/>	Explain how to plan, select, prepare, and manage foods to enhance the well-being of individuals, families, communities, and the food system.

- FOOD DEVELOPMENT COURSE

- Lab-based
- Focus on developing recipes/food products for particular populations
- Recipes for farmer's markets and/or food pantries based on available items (+Communication)
- Food products with altered textures for older adults/disease states (+ Lifecycle)
- Recipes for NSLP or Head Start (+ Lifecycle & Policy)



- ☐ Assess the nutritional and behavioral needs of the population (to establish behavior change goals).
- ☐ Determine the behavior change goals of the program.
- ☐ Identify the theory-based mediators and facilitators of behavior change, using a participatory approach, including social and environmental influences.
- ☐ Select the appropriate theoretical models or frameworks.
- ☐ Develop educational objectives based on the identified theory-based mediators of change from a theoretical model or framework.
- ☐ Design or select theory-based behavior change strategies or techniques that would be effective in achieving the objectives and are appropriate for diverse audiences.
- ☐ Design or select strategies, activities, and materials that match the objectives and are appropriate for diverse audiences.
- ☐ Apply inclusive participatory approaches that enable the target population to effectively communicate, share experiences, identify personal needs, and manage personal food behaviors.
- ☐ Develop a timeline and budget for program development, implementation, and evaluation, including personnel, supplies, and overhead costs.
- ☐ Design process and outcome evaluation plans, based on behavior change mediators and program objectives, using appropriate data collection methods.
- ☐ Revise the program based on process and outcome evaluation findings, as appropriate.

NUTRITION EDUCATION PROGRAMS

- COMMUNITY NUTRITION INTERVENTION COURSE
 - Plan, implement, and evaluate a nutrition education program for a community organization (+Lifecycle, Behavior & Education Theory, Communication)
 - Mock grant application (+Nutrition Education Research Methods & Communication)
 - Federal Program Analysis (+Lifecycle & Policy)

CHRISTEN CUPPLES COOPER

REORGANIZING A COORDINATED M.S. IN NUTRITION AND DIETETICS



COORDINATED M.S. IN NUTRITION & DIETETICS

- CONCENTRATIONS:
 - CULINARY, FOOD POLICY/FOOD JUSTICE
- 2 YEARS, FULL-TIME
 - CHALLENGE TO INCORPORATE ALL COMPETENCIES
- CANDIDACY FOR ACCREDITATION
 - CURRENTLY RE-MAPPING CURRICULUM

THE ACADEMY

- Ethics and Professionalism
- Communications
- Leadership and Advocacy
- Critical Thinking and Decision-Making
- Informatics
- Food, Nutrition and Dietetics and Physical Activity
- Research, Evidence-Informed Practice & Quality Improvement
- Safety and Risk Management
- Education and Counseling

SNEB

- Written, Oral and Social Media Communications
- Agricultural Production and Food Systems
- Food and Nutrition Policy
- Basic Food and Nutrition Knowledge
- Food Science
- Nutrition Across the Lifecycle
- Physical Activity
- Nutrition Education Program Design, Implementation and Evaluation
- Nutrition Education Research Methods
- Behavior and Education Theory

HARD TO TAKE A “DEEP DIVE”

- HOW TO BALANCE ADMISSIONS & DEPTH
- STUDENTS’ LACK OF FAMILIARITY
 - Food and cooking
 - Behavior change theory
 - Lifecycle nutrition
- BALANCING PRE-REQUISITES WITH PROGRAM COURSES
 - How many pre-reqs are too many?
 - What level of knowledge should students have upon entry?



BASIC FOOD KNOWLEDGE & COMMUNICATIONS SKILLS

- FOOD FOCUSED
- CULINARY IS HANDS-ON, APPEALING AND GIVES STUDENTS ALTERNATIVE WAYS TO COMMUNICATE
 - Cooking demonstrations
- IDEAL FOR SOCIAL MEDIA





#SNEB2020: What Food Future?

AGRICULTURAL PRODUCTION & FOOD SYSTEMS

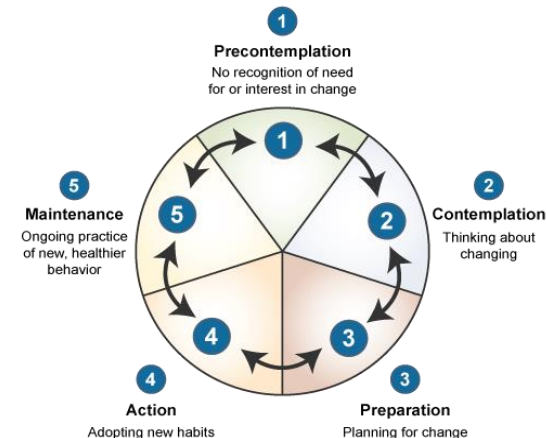
- COMMUNITY AND PUBLIC HEALTH NUTRITION
 - “Catch-all” course
 - Must interweave this throughout curriculum
 - Bringing legislative issues to this course, Lifecycle Nutrition
 - Cultural competence
 - Social justice



BEHAVIOR CHANGE THEORIES

- BETWEEN COUNSELING AND COMMUNITY AND PUBLIC HEALTH NUTRITION
—Miller Model
- THEORY CAN BE USED AT THE PRIMARY CARE LEVEL AS WELL

Cohen, D. J., Tallia, A. F., Crabtree, B. F., & Young, D. M. (2005).
Implementing Health Behavior Change In Primary Care: Lessons
From Prescription For Health. *Annals Of Family Medicine*, 3 Suppl 2(suppl 2), S12–s19.



CULTURAL COMPETENCE

- NEEDS TO BE EVERYWHERE IN THE CURRICULUM

- Clinical (MNT)
- Professional Issues
- Culinary courses
- Community and Public Health

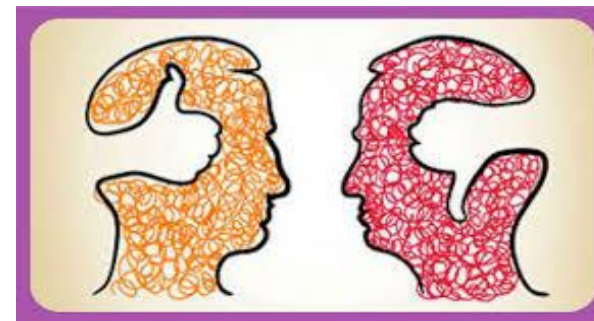


- HAVING STUDENTS READ AND DISCUSS DURING ORIENTATION

- Enter program with a higher level of knowledge

EVALUATION OF COMPETENCIES IS SUBJECTIVE

- ARE WE CAPTURING THE “ART” OF DIETETICS?
- ARE WE GETTING STUDENTS COMFORTABLE WITH UNCERTAINTY?
- ARE WE INSTILLING CONFIDENCE IN ONE’S OWN APPROACHES TO PROBLEMS?



LOOKING FORWARD & RECOMMENDATIONS

- GAPS IN COMPETENCIES
 - Social Justice/Equity
 - Cultural Competence
- PROGRAMS
 - Flexibility & Creativity
 - Collaboration & Communication
 - Constant Curriculum Mapping
- SNEB
 - Platform to share resources and provide support
 - SoTL publication in each JNEB issue



