

**MARSHALL UNIVERSITY  
DIDACTIC PROGRAM IN DIETETICS  
YEARL ASSESSMENT REPORT  
AY 2007 – 2008**

**I. Program's Student Learning Outcomes:**

In past years, the Department of Dietetics has focused on programmatic goals and objectives in order to assess the undergraduate program. During the 2007 – 2008 academic year, student learning outcomes were established; however, notification from the Commission on Accreditation for Dietetics Education (CADE) was recently provided regarding revised eligibility requirements and accreditation standards. Within the revisions are mandatory learning outcomes for all Didactic Programs in Dietetics, which must be implemented by March 2009. Because of these changes, the student learning outcomes created for the 2007 – 2008 academic year will no longer be utilized; instead, the Department will transition to the newly established standardized learning outcomes.

That said, the 2007 – 2008 student learning outcomes focused on three primary areas relevant to the field of dietetics; 1) Communication – students will demonstrate the ability to communicate effectively, both orally and in writing, 2) Food and Nutrition – students will demonstrate the understanding of the role of nutrients and food in the achievement and maintenance of human health and well being, and 3) Management – students will demonstrate their ability to use efficiently and effectively the techniques and tools for managing foodservice systems. Because these learning outcomes were new, results for outcome measures are limited and are comprised of DPD graduate and Dietetic Internship Director surveys. It is understood that surveys are not the most desired form of data collection to assess student learning and the Dietetics faculty are working to design rubrics for assignments and projects and specific questions on examinations to better assess student learning. These tools will be used to measure the outcomes established for the 2008 – 2009 academic year.

**II. Assessment Activities**

Appendix A illustrates the student learning outcomes and assessment methods designed for academic year 2007 – 2008. As previously mentioned, these will not be used for the current academic year, but will be replaced by the mandated learning outcomes provided by CADE. A copy of the new knowledge requirements and learning outcomes is provided in Appendix B. The faculty are collaborating to develop appropriate assessment tools for these learning outcomes and plan to

provide results for one-third of the outcomes in the 2009 Assessment Report.

Data collected regarding the assessment of student learning for each area of emphasis will follow.

### **Communication**

*Assessment Tool:* DPD Alumni Survey question – The undergraduate DPD at Marshall University gave me a basic knowledge of communication techniques and the ability to apply them.

*Benchmark:* 90% of alumni will agree or strongly agree that the DPD provided a basic knowledge of communication techniques and the ability to apply them.

*Results:* AY 2006 – 2007, 11 total graduates, 6 returned survey. 100% either agreed (1) or strongly agreed (5).

*Assessment Tool:* Dietetic Internship (DI) Director Survey – Directors are asked to assess the competence of DPD graduates in several areas by rating their level of competence as outstanding, more than satisfactory, satisfactory, less than satisfactory, or unsatisfactory. The question regarding communication encompasses interpersonal communication skills, counseling theory and interviewing techniques, public speaking, education material development, and effectiveness as a team member.

*Benchmark:* 90% of DI Director's will rate Marshall DPD graduates satisfactory or higher with regard to communication skills.

*Results:* 11 DPD graduates, 11 participated in Dietetic Internships, 9 surveys returned. 100% of students were rated as satisfactory or higher (6 more than satisfactory and 3 outstanding)

### **Food and Nutrition**

*Assessment Tool:* DPD Alumni Survey questions – The undergraduate DPD at Marshall University:

1. Gave me the ability to understand, apply, use, and evaluate information regarding food, food service, and food regulations
2. Gave me the ability to understand, apply, use, and evaluate information regarding nutrition and medical nutrition therapy.

*Benchmark:* 90% of DPD alumni will agree or strongly agree that the DPD provided them with appropriate knowledge and skills regarding food and nutrition.

*Results:*

Food – 83.3% (n=6) agreed (2) or strongly agreed (3), 1 neutral

Nutrition - 100% (n=6) agreed (0) or strongly agreed (6)

*Assessment Tool:* DI Director's Survey questions regarding knowledge of food (including food technology, culinary techniques, food consumption issues, safety and sanitation, food security policy, food production systems, sensory evaluation, procurement, distribution, preparation, and recipe modification) and nutrition (including medical nutrition therapy for common conditions, screening and assessment techniques, calculating parenteral and enteral nutrition formulation, lifespan nutrition, health promotion theories, and basic nutrition).

*Benchmark:* 90% of DI Director's will rate Marshall DPD graduates satisfactory or higher with regard to knowledge and skills related to food and nutrition.

*Results:*

Food – 100% (n=9) with 9 rated more than satisfactory

Nutrition – 100% (n=9) with 9 rated more than satisfactory

***Management***

*Assessment Tool:* DPD Alumni Survey question – The undergraduate DPD at Marshall University gave the ability to apply management information to dietetics.

*Benchmark:* 90% of alumni will agree or strongly agree that the DPD provided them with the ability to apply management information to dietetics.

*Results:* 66.6% (n=6) agreed (2) or strongly agreed (2). 1 neutral and 1 strongly disagreed.

*Assessment Tool:* DI Director's Survey question regarding knowledge and skills in management (including program planning and evaluation, management theories, HR management, financial management, systems theory, marketing theory and techniques, budget, and interpreting financial data).

*Benchmark:* 90% of DI Director's will rate Marshall DPD graduates satisfactory or higher with regard to knowledge and skills related to management.

*Results:* 100% (n=9) with 9 rated more than satisfactory

***Analysis/Planned Action:*** The faculty were surprised by the responses of DPD graduates regarding perceived knowledge and skills in the area of management. To obtain more information, several alumni have been asked to expand on their concerns and from these discussions, ideas have surfaced for assignments and activities that might help improve graduate confidence in management practices. In addition, ideas will be solicited from the Dietetics Advisory Committee during the Spring 2009 meeting.

As stated before, the Dietetics faculty are cognizant to the fact that surveys are not the most appropriate tools to assess student learning. Instead, alumni and internship director surveys will be used to assess programmatic outcomes. Assignments, projects, and exam questions are currently being designed to measure the new 2009 DPD student learning outcomes.

### **III. Assistance Needed with Assessment**

Because the Didactic Program in Dietetics is nationally accredited, it is imperative to comply with CADE requirements and standards. While the knowledge requirements and learning outcomes are prescribed, the Department is responsible for determining appropriate assessment strategies and outcome benchmarks. Current faculty members have little experience developing rubrics to measure specific outcomes; thus, the process is quite time consuming, especially with 17 student learning outcomes. It would be beneficial to have someone with more knowledge in rubric construction to assist department faculty in creating several rubrics to ensure they are appropriately measuring the respective outcome.

**Attachment A**  
**2007 – 2008**  
**Student Learning Outcomes**

**Marshall University Didactic Program in Dietetics  
Programmatic Assessment Plan  
Student Learning Outcomes**

**Communication**

<b>Student Learning Outcomes for Communication</b>						
Students will demonstrate the ability to communicate effectively both orally and in writing.						
<b>DPD Mission</b>						
To provide the depth and breadth of food and nutrition knowledge and skills that prepare students to enter a supervised practice program in dietetics.						
<b>Marshall's Mission Reference</b>						
Provide services and resources to promote student learning, retention, and academic success.						
<b>Outcome Measures</b>	<b>Data Needed</b>	<b>Data Available</b>	<b>Group to be Assessed</b>	<b>Assessment Methods</b>	<b>Who will conduct Assessment?</b>	<b>Timeline</b>
Graduates will have knowledge of interview techniques and counseling theory and methods.	Evidence of student progress	No	Students in Assessment & Education Strategies in DTS	Role play, exams	Williams	2 <sup>nd</sup> semester sophomore or junior year
		Yes	Students in Medical Nutrition Therapy I	Role play	Gould	1 <sup>st</sup> semester senior year
Graduates will have demonstrated the ability to work effectively as a team member.	Evidence of student progress	Yes	Students in Foodservice Safety and Systems Management II	Restaurant Planning Assignment	Williams	2 <sup>nd</sup> semester junior or senior year
		Yes	Students in Senior Seminar in DTS	Nutrition Education Assignment	Gould	1 <sup>st</sup> semester senior year

<b>Outcome Measures</b>	<b>Data Needed</b>	<b>Data Available</b>	<b>Group to be Assessed</b>	<b>Assessment Methods</b>	<b>Who will conduct Assessment?</b>	<b>Timeline</b>
Graduates will have knowledge of lay and technical writing.	Evidence of student progress	Yes	Life Span Nutrition	Stages of Life Project	Gannon	2 <sup>nd</sup> semester sophomore or junior year
		-----	-----	-----	-----	-----
		Yes	Foodservice Safety and Systems Mgt. II	Lab reports	Williams	2 <sup>nd</sup> semester junior or senior year
		-----	-----	-----	-----	-----
Yes	Medical Nutrition Therapy I & II	Case studies, exams	Gould	Senior year		
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Yes	Senior Seminar	Nutrition education project	Gould	1 <sup>st</sup> semester senior year		
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Foundation Knowledge and Skills above and so on.	Perceptions of Seniors	No	Graduating Seniors	Focus groups	Graduate Assistants	Annually on Assessment Day
	-----	-----	-----	-----	-----	-----
	Assessment of DPD Graduates	No?	Alumni	Surveys	Program Director	18 months after graduation
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Assessment of DI Director	Yes	DI Directors	Surveys	Program Director	18 months after student graduation	
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## Food and Nutrition

### Student Learning Outcomes for Food and Nutrition

Students will demonstrate their understanding of the role of nutrients and food in the achievement and maintenance of human health and well-being.

### DPD Mission

To provide the depth and breadth of food and nutrition knowledge and skills that prepare students to enter a supervised practice program in dietetics.

### Marshall's Mission Reference

Enhance the quality of health care in the region.

<i>Outcome Measures</i>	<i>Data Needed</i>	<i>Data Available</i>	<i>Group to be Assessed</i>	<i>Assessment Methods</i>	<i>Who will conduct Assessment?</i>	<i>Timeline</i>
Graduates will have knowledge of organic chemistry, biochemistry, physiology, microbiology, nutrient metabolism, pathophysiology related to nutrition care, and fluid and electrolyte requirements.	Evidence of student progress	Yes	Students in: Organic Chemistry, Biochemistry, Physiology, Microbiology, & Introductory through Advanced Nutrition	Final grades, lab reports, & examination	University and Dietetics Faculty	Sophomore through senior year
		Yes	Advanced Nutrition	Exams & quizzes	Gould	2 <sup>nd</sup> semester junior or senior year
		Yes	Medical Nutrition Therapy I and II	Case studies, exams, research summaries	Gould	Senior year
Graduates will have knowledge of food technology and food safety and sanitation.	Evidence of student progress	Yes	Microbiology	Final grade, lab reports	University faculty	Sophomore or junior year
		-----	-----	-----	-----	-----
		Yes	Introductory Foods	Lab reports and observations, exams	Gannon	2 <sup>nd</sup> semester sophomore year
		Yes	Foodservice Safety and Systems Management I	Lab reports and observations, exams	Williams	2 <sup>nd</sup> semester junior or senior year
Yes	Chemistry of Foods	Lab reports, exams, experiment	Gannon	2 <sup>nd</sup> semester senior year		

<b>Outcome Measures</b>	<b>Data Needed</b>	<b>Data Available</b>	<b>Group to be Assessed</b>	<b>Assessment Methods</b>	<b>Who will conduct Assessment?</b>	<b>Timeline</b>
Graduates will measure, calculate, and interpret body composition data and determine nutrient requirements for individuals across the lifespan.	Evidence of student progress	Yes	Introductory Nutrition	Laboratory exercise	Gannon	1 <sup>st</sup> semester sophomore year
		-----	-----	-----	-----	-----
		Yes	Life Span Nutrition	Stages of Life Project	Gannon	2 <sup>nd</sup> semester sophomore or junior year
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Yes	Medical Nutrition Therapy I and II	Case studies, presentations, & exams	Gould	Senior year		
Graduates will have knowledge about outcomes based research	Evidence of student progress	Yes	Intermediate Nutrition		Gannon	1 <sup>st</sup> semester junior year
		-----	-----	-----	-----	-----
		Yes	Research in DTS	Article summaries and discussions	Linnenkohl	1 <sup>st</sup> semester senior year
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Yes	Medical Nutrition Therapy I and II	Research summaries on disease states	Gould	Senior year		
Foundation knowledge and skills above and so on.	Perceptions of Seniors	Yes	Graduating seniors	Focus groups	Graduate Assistants	Annually during Assessment Day
	-----	-----	-----	-----	-----	-----
	Assessment of DPD graduates	Yes	Alumni	Survey	Program Director	18 months after graduation

## Management

### Student Learning Outcomes for Management

Students will demonstrate their ability to use efficiently and effectively the techniques and tools for managing food service systems.

### DPD Mission

To provide the depth and breadth of food and nutrition knowledge and skills that prepare students to enter a supervised practice program in dietetics.

### Marshall's Mission Reference

Provide services and resources to promote student learning, retention, and academic success.

<i>Outcome Measures</i>	<i>Data Needed</i>	<i>Data Available</i>	<i>Group to be Assessed</i>	<i>Assessment Methods</i>	<i>Who will conduct Assessment?</i>	<i>Timeline</i>
Graduates will have knowledge of food delivery systems	Evidence of student progress	Yes -----	Foodservice Safety and Systems Mgt. I -----	-----	Williams -----	1 <sup>st</sup> semester junior or senior year -----
Graduate will have knowledge of food production systems	Evidence of student progress	Yes	Foodservice Safety and Systems Mgt. II	Exams, lab reports?	Williams	2 <sup>nd</sup> semester junior or senior year
Graduates will have knowledge about management theories and accounting principles.	Evidence of student progress	Yes -----	Students in Principles of Management, Entrepreneurial Accounting, and Foodservice Safety and Systems Management I or II -----	Final grades and examinations	University and Dietetics Faculty	Sophomore through senior year
		Yes	Foodservice Safety and Systems Mgt.	Examination	Williams	Junior or senior year
Foundation Knowledge and Skills above and so on.	Perceptions of Seniors -----	Yes -----	Graduating seniors -----	Focus groups	Graduate Assistants	Annually during Assessment Day -----
	Assessment of DPD graduates -----	Yes -----	Alumni -----	Survey	Program Director	18 months after graduation -----
	Assessment of DI Directors	Yes	DI Directors	Survey	Program Director	18 months after student graduation

ATTACHMENT B  
2008 – 2009  
WORKING DRAFT  
STUDENT LEARNING OUTCOMES

**Marshall University**  
**Didactic Program in Dietetics**  
**Foundation Knowledge Requirements and Learning Outcomes**

**1. Scientific and Evidence Base of Practice: integration of scientific information and research into practice**

**Knowledge Requirement 1.1.**

The curriculum must reflect the scientific basis of the dietetics profession and must include research methodology, interpretation of research literature and integration of research principles into evidence-based practice.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to demonstrate how to locate, interpret, evaluate, and use professional literature to make ethical evidence-based practice decisions. (KR 1.1.a.)	Lifespan Nutrition (DTS 310) Community Nutrition (DTS 409) Chemistry of Foods (DTS 468)	310-Stages of Life Project 409-Grant Proposal 468-Research Project			
Students are able to use current information technologies to locate and apply evidence-based guidelines and protocols, such as the ADA Evidence Analysis Library, Cochrane Database of Systematic Reviews and DHHS, Agency for Healthcare Research and Quality, National Guideline Clearinghouse Web sites. (KR 1.1. b.)	Community Nutrition (DTS 409) Research in Dietetics (DTS 460)				

## 2. Professional Practice Expectations: beliefs, values, attitudes and behaviors for the professional dietitian level of practice

### Knowledge Requirement 2.1

The curriculum must include opportunities to develop a variety of communication skills sufficient for entry into pre-professional practice.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to demonstrate effective and professional oral and written communication and documentation and use of current information technologies when communicating with individuals, groups, and the public. (KR 2.1.a.)	Introductory Nutrition (DTS 201) Foodservice Systems & Safety Management II (DTS 302) Senior Seminar (DTS 476)				
Students are able to demonstrate assertiveness, advocacy, and negotiation skills appropriate to the situation. (KR 2.1.b.)	Assessment & Education Strategies in DTS (DTS 215) Community Nutrition (DTS 409)				

## Knowledge Requirement 2.2

The curriculum must provide principles and techniques of effective counseling methods.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to demonstrate counseling techniques to facilitate behavior change. (KR 2.2.a)	Assessment and Education Strategies in DTS (DTS 215) Medical Nutrition Therapy I (DTS 469)				

### Knowledge Requirement 2.3

The curriculum must include opportunities to understand governance of dietetics practice, such as the ADA Scope of Dietetics Practice Framework, the Standards of Professional Performance, and the Code of Ethics for the Profession of Dietetics; and interdisciplinary relationships in various practice settings.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to locate, understand, and apply established guidelines to a professional practice scenario. (KR 2.3.a.)	Medical Nutrition Therapy I & II (DTS 469 & 470) Senior Seminar (DTS 476)	469/470- Case Studies 476- Ethics Case Study			
Students are able to identify and describe the roles of others with whom the Registered Dietitian collaborates in the delivery of food and nutrition services. (KR 2.3.b.)	Foodservice Safety & Systems Management I (DTS 302) Intermediate Nutrition (DTS 320) Medical Nutrition Therapy I (DTS 469)	302- 320- 469- Question on exam			

**3. Clinical and Customer Services: development and delivery of information, products, and services to individuals, groups, and populations**

**Knowledge Requirement 3.1**

The curriculum must reflect the nutrition care process and include the principles and methods of assessment, diagnosis, identification, and implementation of interventions and strategies for monitoring and evaluation.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to use the nutrition care process to make decisions, to identify nutrition-related problems and determine and evaluate nutrition interventions, including medical nutrition therapy, disease prevention, and health promotion (KR 3.1.a.)	Assessment & Education Strategies in DTS (DTS 215) Medical Nutrition Therapy I and II (DTS 469 & 470)	215-469/470- Examination questions			

### Knowledge Requirement 3.2

The curriculum must include the role of environment, food, nutrition, and lifestyle choices in health promotion and disease prevention.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to apply knowledge of the role of environment, food, and lifestyle choices to develop interventions to affect change and enhance wellness in diverse individuals and groups (KR 3.2.a.)	Introductory Nutrition (DTS 201) Intermediate Nutrition (DTS 320) Community Nutrition (DTS 409)	201- 320- 409-			

### Knowledge Requirement 3.3

The curriculum must include education and behavior change theories and techniques

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to develop an educational session or program/educational strategy for a target population	Assessment & Education Strategies in DTS (DTS 215) Senior Seminar (DTS 476)	215-Behavior change questions on examination 476-Community Nutrition Education Presentation	215- 476- 100% students will receive satisfactory or higher scores on presentation evaluation from community members 90% students will receive satisfactory or higher scores on professor's evaluation of presentation		

**4. Practice Management and Use of Resources: strategic application of principles of management and systems in the provision of services to individuals and organizations**

**Knowledge Requirement 4.1**

The curriculum must include management and business theories and principles required to deliver programs and services.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to apply management and business theories and principles to the development, marketing, and delivery of programs or services. (KR 4.1.a.)	Foodservice Safety & Systems MGT II (DTS 302) Senior Seminar (DTS 476)	302-476-			
Students are able to determine costs of services or operations, prepare a budget, and interpret financial data. (KR 4.1.b.)	Foodservice Safety & Systems MGT I and II (DTS 301 & 302)	301/302-			
Students are able to apply the principles of human resource management to different situations. (KR 4.1.c.)	Foodservice Safety & Systems MGT I and II (DTS 301 & 302)	301/302-			

## Knowledge Requirement 4.2

The curriculum must include content related to quality management of food and nutrition services.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to apply safety principles related to food, personnel, and consumers. (KR 4.2.a.)	Introductory Foods (DTS 202) FS Safety & Systems MGT I (DTS 301) Chemistry of Foods (DTS 468)	202- 301- 468-			
Students are able to develop outcome measures, use informatics principles and technology to collect and analyze data for assessment and evaluate data to use in decision-making. (KR 4.2.b.)	Introductory Foods (DTS 202) FS Safety & Systems MGT I (DTS 301) Chemistry of Foods (DTS 468)	202- 301- 468-			

### Knowledge Requirement 4.3

The Curriculum must include the fundamentals of public policy, including the legislative and regulatory basis of dietetics practice.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to explain the impact of a public policy position on dietetics practice. (KR 4.3.a.)	Community Nutrition (DTS 409)	409-			

### Knowledge Requirement 4.4

The curriculum must include content related to health care systems.

Learning Outcome	Group to be Assessed	Assessment Tools	Benchmarks	Results	Planned Action
Students are able to explain the impact of health care policy and administration, different health care delivery systems, and current reimbursement issues, policies and regulations on food and nutrition services. (KR 4.4.a.)	Community Nutrition (DTS 409) Medical Nutrition Therapy I & II (DTS 469 & 470)	409- 469/470-			

## **5. Support Knowledge: knowledge underlying the requirements specified above.**

### **Support Knowledge 5.1**

The food and food systems foundation of the dietetics profession must be evident in the curriculum. Course content must include the principles of food science (DTS 202) and food systems (DTS 301 and 302), techniques of food preparation (DTS 202 and 468), and application to the development, modification, and evaluation of recipes, menus, and food products acceptable to diverse groups (DTS 201 and DTS 301 and 302).

### **Support Knowledge 5.2**

The physical and biological science foundation of the dietetics profession must be evident in the curriculum. Course content must include organic chemistry (CHM 327), biochemistry (CLS 200, DTS 403), physiology (BSC 228, DTS 469/470, ESS 345), genetics (DTS 403), microbiology (BSC 250, DTS 301), pharmacology (DTS 215, DTS 469/470, CLS 200), statistics (DTS 460, EDF 417), nutrient metabolism (DTS 201, DTS 403, CLS 200, ESS 345), and nutrition across the lifespan (DTS 310).

### **Support Knowledge 5.3**

The behavioral and social science foundation of the dietetics profession must be evident in the curriculum. Course content must include concepts of human behavior and diversity, such as psychology (PSY 201, 311, 312), sociology or anthropology (SOC 200, potential elective for Marshall Plan course)