Student Learning Outcomes Assessment Plan

The Student Learning Outcomes Assessment Plan (SLO Assessment Plan) documents student learning outcomes and assessment plans for any new undergraduate and graduate degree program, certificate program, minor, and distance education program (online-only modality).

After receiving approval from the respective Undergraduate or Graduate Council, the University Assessment Committee will review this SLO Assessment Plan.

For programs with more than five student learning outcomes, please continue the outcomes toward the end of this document.

Please contact the Office of Institutional Effectiveness (Phone: 817-257-4169) for additional tools and information for writing effective student learning outcomes. If an online or distance learning component is proposed for the new program, please consult with the Koehler Center for Instruction, Innovation, and Engagement Resources (Phone: 817-257-7434).

Name of Program: Master of Science in Nutrition with DPD Verification (MS NUTR)

Department: Nutritional Sciences (NTDT)

College: College of Science and Engineering (CSE)

Program's Goal or Mission Statement (Please demonstrate alignment across program, college/school, and university mission:

Alignment between program, department, college and university verbiage is noted with underlined text.

MS Nutrition with DPD Verification: The mission of the Didactic Program in Dietetics (DPD) at Texas Christian University is to support the missions of the University, college and department by fostering a rigorous academic curriculum that prepares students to be scientifically competent, accountable and ethically responsible citizens who are prepared for supervised practice, leading to eligibility for the CDR credentialing exam, and thereby advancing as self-educating dietetics professionals who will become Registered Dietitian Nutritionists in the global community.

Department of NTDT Mission: The mission of the TCU Department of Nutritional Sciences is to support the mission of the University, college and programs within the department and to provide a distinctive program of study in all areas of nutrition and dietetics. The faculty of the Department affirm their commitment to offering personalized, rigorous instruction broadly informed, scientifically competent, self-educating, and ethically responsible citizens who are capable of entering successful careers in food science, nutrition, and dietetics and are also cognizant of the needs of the community and society at large.

CSE Mission: To foster knowledge of and curiosity about science, mathematics, and engineering by offering personalized, rigorous instruction that emphasizes research and internship opportunities.

TCU Mission: The mission of Texas Christian University, a private comprehensive university, is to educate individuals to think and act as ethical leaders and responsible citizens in the global community through research and creative activities, scholarship, service, and programs of teaching and learning offered through the doctoral level.

Continue learning outcome on this page.

Student Learning Outcome:

Students will describe concepts of nutritional genomics and how they relate to medical nutrition therapy, health and disease.

Identify and Describe the Measure

Identify and describe the **Measure** for student learning. Examples of a measure include: assignment, exam, project, essay, or relevant artifact.

Nutrigenetics Project and Presentation (see attached)

Identify the **Evaluation Tool** that will demonstrate the acquisition of this Student Learning Outcome, and explain how the evaluation tool assesses the knowledge or skill. Examples of evaluation tools include: holistic rubric, itemized analysis, analytical rubric, or relevant evaluation method.

Rubric

Attach a copy of the Measure and Evaluation Tool.

See attached.

Identify and Describe the **Methodology**

List the course(s) where the program will collect **data**.

NTDT 60443 Nutritional Genomics

Describe how the program will collect data. If course(s) exists outside of the department, please attach a statement of collaboration from each program/department that ensures consistent data collection.

The faculty member, Elisa Marroquin, will collect the data and submit to the assessment coordinator in the NTDT Department.

Identify the frequency of data collection (spring, summer, and/or fall semester).

Annually at the end of the fall semester

Describe how the department will use and disseminate the **Findings** to program faculty.

Findings will be compiled and presented at the end of each semester and disseminated to all department faculty during faculty meetings. The data will be submitted as required to the TCU Institutional Effectiveness office.

Include the program's goal or mission statement (Please demonstrate alignment between program, college/school, and university mission):

Mission of MS Nutrition with DPD Verification: The mission of the Didactic Program in Dietetics (DPD) at Texas Christian University is to support the missions of the University, college and department by fostering a rigorous academic curriculum that prepares students to be scientifically competent, accountable and ethically responsible citizens who are prepared for supervised practice, leading to eligibility for the CDR credentialing exam, and thereby advancing as self-educating dietetics professionals who will become Registered Dietitian Nutritionists in the global community.

Continue learning outcome on this page.

Student Learning Outcome:

Students will develop an educational session or program/educational strategy for a target population.

Identify and Describe the Measure

Identify and describe the **Measure** for student learning. Examples of a measure include: assignment, exam, project, essay, or relevant artifact.

Oral presentation assignment (see attached)

Identify the **Evaluation Tool** that will demonstrate the acquisition of this Student Learning Outcome, and explain how the evaluation tool assesses the knowledge or skill. Examples of evaluation tools include: holistic rubric, itemized analysis, analytical rubric, or relevant evaluation method.

Rubric

Attach a copy of the Measure and Evaluation Tool.

See attached

Identify and Describe the **Methodology**

List the course(s) where the program will collect **data**.

NTDT 60453 Nutrition Ecology

Describe how the program will collect data. If course(s) exists outside of the department, please attach a statement of collaboration from each program/department that ensures consistent data collection.

The faculty member, Gina Hill, will collect the data and submit to the assessment coordinator in the NTDT Department.

Identify the frequency of data collection (spring, summer, and/or fall semester).

Annually at the end of the fall semester

Describe how the department will use and disseminate the **Findings** to program faculty.

Findings will be compiled and presented at the end of each semester and disseminated to all department faculty during faculty meetings. The data will be submitted as required to the TCU Institutional Effectiveness office.

Program's Goal or Mission Statement (Please demonstrate alignment between program, college/school, and university mission):

The mission of the Didactic Program in Dietetics (DPD) at Texas Christian University is to support the missions of the University, college and department by fostering a rigorous academic curriculum that prepares students to be scientifically competent, accountable and ethically

responsible citizens who are prepared for supervised practice, leading to eligibility for the CDR credentialing exam, and thereby advancing as self-educating dietetics professionals who will become Registered Dietitian Nutritionists in the global community.

Continue learning outcome on this page.

Student Learning Outcome:

Students will apply critical thinking skills.

Identify and Describe the Measure

Identify and describe the **Measure** for student learning. Examples of a measure include: assignment, exam, project, essay, or relevant artifact.

Journal article presentation (see attached)

Identify the **Evaluation Tool** that will demonstrate the acquisition of this Student Learning Outcome, and explain how the evaluation tool assesses the knowledge or skill. Examples of evaluation tools include: holistic rubric, itemized analysis, analytical rubric, or relevant evaluation method.

Rubric

Attach a copy of the Measure and Evaluation Tool.

See attached

Identify and Describe the **Methodology**

List the course(s) where the program will collect **data**.

NTDT 50343 Aspects of Human Nutrition

Describe how the program will collect data. If course(s) exists outside of the department, please attach a statement of collaboration from each program/department that ensures consistent data collection.

The faculty member, Jada Willis, will collect the data and submit to the assessment coordinator in the NTDT Department.

Identify the frequency of data collection (spring, summer, and/or fall semester).

Annually at the end of the spring semester

Describe how the department will use and disseminate the **Findings** to program faculty.

Findings will be compiled and presented at the end of each semester and disseminated to all department faculty during faculty meetings. The data will be submitted as required to the TCU Institutional Effectiveness office.

Program's Goal or Mission Statement (Please demonstrate alignment between program, college/school, and university mission):

The mission of the Didactic Program in Dietetics (DPD) at Texas Christian University is to support the missions of the University, college and department by fostering a rigorous academic curriculum that prepares students to be scientifically competent, accountable and ethically responsible citizens who are prepared for supervised practice, leading to eligibility for the CDR

credentialing exam, and thereby advancing as self-educating dietetics professionals who will become Registered Dietitian Nutritionists in the global community.

Continue learning outcome on this page.

Attach a program **curriculum map** that considers each student learning outcome in the program. Curriculum mapping allows for an inventory of the links between the program's student learning outcomes and the program curriculum. It also helps to ensure proper sequencing of courses, the degree to which the curriculum supports student learning, and the extent to which the program curriculum addresses the program's student learning outcomes.

Program: MS in NUTR

Name: Gina Jarman Hill

Extension:6320

E-mail: g.jarman@tcu.edu

Chair of Assessment Committee

Name:

Assessment:
- ☐ Approved as Written
- ☐ Approved with stipulations (Administrative review only required.)
- ☐ Disapprove (full committee review required.)

Comments:

Signature: Date:

Continue learning outcome on this page.

Nutrigenetics Project and Presentation (20 points)

The student will choose a Nutrigenetics/Nutrigenomics topic and will present it to the rest of the class on the assigned date. Presentations are individual and topics are meant to be approved by Dr. Marroquín weeks in advance. The project will be evaluated with the following deliverables: a document and a presentation.

This assignment satisfies KRDN 3.5: Describe concepts of nutritional genomics and how they relate to medical nutrition therapy, health and disease.

Document: The document will have a length of 3 pages (Times New Roman, single space), will be cited with any reference style that uses numbered format for citations, adding a title page, and using at least 5 scientific articles as references cited through the text and added in a reference list at the end.

Presentation: The length of the presentation will be ~10 min. Slides will have little text and will mostly rely on figures, tables, and diagrams. The student most show deep understanding of the topic. Time will be measured during class. Both, the document and the presentation have to be uploaded before the beginning of the class. No changes to the presentation are allowed during class time.

* With the main goal of evaluating your attention to your colleagues, each person must ask 3 questions total at the end of the presentations.

Name:_____**Overall Grade:**_____

Points	**100%**	**75%**	**50%**	**0-25%**
Concept	**Excellent**	**Acceptable**	**Regular**	**Unacceptable**
Slides **30 points**	Included slides with little text and plenty visuals.	Included slides with a lot of text or few visuals.	Included abundant text and no/few images.	Included abundant text and no/few images. Presentation lasted <8 or >12 min
Understanding **20 points**	The student is able not only to present but also to defend the topic when asked.	The student is able to defend the topic but does not correctly answer questions relevant to the topic.	The student is not able to defend the topic and does not correctly answer questions relevant to the topic.	The student did not follow the instructions, does not show understanding of the topic, and answers erratically pertinent questions.
References **20 points**	Included 5 scientific references.	Included 4 scientific references.	Included 3 scientific references.	Included 2 scientific references. Did not add citations within the text and/or references at the end of the text.
Writing **20 points**	Writing is coherent and based on scientific support.	Only part of the writing is coherent and based on scientific support	The writing is not coherent or based on scientific support. It is clear the student did not learn from class.	There is evidence of plagiarism.

Questions to colleagues 10 points	The student did 3 questions to colleagues	The student did 2 questions to colleagues	The student only asked one question to colleagues	The student did not ask any questions

NTDT 60453
Final Oral Presentation

Objectives:

1. Develop an educational session or program/educational strategy for target population. (KRDN 3.2)
2. Analyze the impact that common practices utilized in each component of the food chain have on human and environmental health, society and/or the economy.
3. Evaluate proposed solutions to achieve a more sustainable food system.

Students will investigate a topic of their choice related to Nutrition Ecology, Food and Sustainability and develop a 15-minute oral presentation with an accompanying visual presentation (PowerPoint, original video clip or other visual aide) to present one or more solutions to address problems. The presentation should summarize the impact that a specific commonly occurring practice/problem/issue in food chain components (production, harvesting, conservation, storage, transport, processing, packaging, marketing/sales, distribution, preparation, food consumption, waste material disposal) has on human and/or environmental health. The student will research current solutions that exist to address this/these problem(s) and/or propose new solutions to these practices and summarize the traits, benefits and related barriers of a sustainable food system.

Students may choose the same or a different topic as was investigated for the Problem/Solution Research Written Assignment. Students should spend 1/3 or less of the presentation discussing the problem and 2/3 or more of the presentation introducing and describing solutions to the problem. The presentation should be aimed at a general lay audience at TCU or in the Fort Worth community who are interested in sustainability issues.

Post visual presentation to TCU Online by 7:00 a.m. on due date.

NTDT 60453
Final Oral Presentation Rubric

Final Oral Presentation

Criteria	Level 4	Level 3	Level 2	Level 1	Criterion Score
Communication	30 points Points were well-articulated and clearly communicated. Volume and speed were appropriate. Presentation would have been appropriate for a professional setting. Speaker was calm and professional, but not overly relaxed or loose.	25 points Most of points were clearly communicated. Some of the points were less clearly articulated or were somewhat confusing. Volume and speed were appropriate. Speaker was calm and professional.	22 points Majority of points were unclear, repetitious, or were unsupported by peer-reviewed or lay research. Speaker spoke too quietly or too quickly or was overly relaxed for a professional presentation.	18 points Overall poor communication. Audience was unable to understand, hear or learn from speaker.	/ 30
Quality of Information	35 points Thoroughly, yet succinctly explained the chosen problem. Spent 1/3 or less of the presentation time/material on problem and 2/3 of the time/material on the solution(s). Provided information well beyond the readings from the coursework this semester so that presenter and audience learned AMPLE new information. Supported the presentation with evidence that was appropriately cited. All information presented was accurate.	29 points Thoroughly, yet succinctly explained the chosen problem. Spent too little or too much time on either the problem or the solution compared to instructions. Provided information well beyond the readings from the coursework this semester so that presenter and audience learned AMPLE new information. Supported the presentation with evidence that was appropriately cited.	22 points Explanation of the problem or the solution was overly broad or vague. Information presented was not sufficiently beyond the readings from the coursework this semester, which does not allow the presenter and audience to learn new information beyond what was previously covered. Supported the presentation with evidence that was appropriately cited.	21 points Insufficient explanation of problem or solution(s). Poor information presented. Speaker did not adequately identify new information to share with audience and instead presented a simple or beginner version of the topic.	/ 35

Preparation	30 points Speaker was obviously prepared. Speaker answered/addressed any questions/issues. Provided and cited strong, well-researched topic. Speaker was organized. Presentation was interesting and well-executed. Students adhered to allotted time and stayed within 13-15 minutes. Visual portion of presentation was free from errors and added to the overall quality of the presentation. Student dressed professionally for the presentation (at least business casual).	25 points Speaker appeared mostly prepared with minor issues. Speaker answered/addressed almost all questions/issues. Speaker was organized. Presentation was interesting and well-executed. Provided adequate objective evidence to support topic. Did cite some of objective evidence. Visual portion of presentation was free from errors and added to the quality of the presentation. Student dressed professionally for the presentation (at least business casual). Student was either slightly (<1 minute) under or over allotted time.	22 points Speaker appeared somewhat ill prepared. Presentation did not flow well and was mildly disorganized. Presentation was interesting. Mostly provided adequate objective evidence to support topic. Did cite some of objective evidence. Visual presentation did not add to the quality of the presentation or student read excessively from the visuals or from a script. Student was either slightly (<1 minute) under or over allotted time.	18 points Speaker was clearly not well prepared. Presentation was choppy, appeared as unpracticed or in early draft stages. Did not adequately cite objective evidence and/or was < 12 minutes or > 16 minutes long.	/ 30
Adherence to Directions	5 points Student adhered to all directions. Presentation was appropriate for intended audience. All visuals worked and were tested ahead of the presentation.	4 points Student adhered to almost all directions. Presentation was appropriate for intended audience.	0 points Student did not adhere to more than one part of the instructions OR the presentation was inappropriate for intended audience.	0 points Students adhered poorly to instructions.	/ 5

Total	/ 100

Biochemical, Physiological, and Molecular Aspects of Human Nutrition
NTDT 55343
Willis, Spring 2022

Journal Article Presentation

This assignment satisfies KRDN 1.3: Apply critical thinking skills.

Instructions:
Students present a peer-reviewed research article related to the topics of the class (see course schedule). The journal article will be assigned to students towards the beginning of the semester. Read the assigned journal article and answer the following (typed):

Article Information:
1. Title of article
2. Year published
3. Title of journal
4. Impact factor

Authors:
1. Names, credentials, and institutions
2. Conflict of interests (if applicable)
3. Funding information (if applicable)

Background/Introduction:
1. Brief overview of the background
2. Goal/purpose/objective

Questions to consider: Why is this paper necessary and important? Is their purpose clearly stated? What are the strengths and weaknesses of this section?

Data:
1. Go over the data while making sure to describe each table and figure.

Questions to consider: Are the data clearly stated? Is the data clearly presented in the tables and/or figures? Are they missing any important data? Is there a different way that some of the data should be presented? What are the strengths and weaknesses of the data presented?

Discussion:
1. Author's approach or methods
2. Main findings of the study. Key takeaways
3. Agreement/disagreement with comparable studies
4. Interpretation of literature/findings
5. Weaknesses
6. Future studies and conclusions

Questions to consider: Did you find errors of fact and interpretation? Do their interpretations of the data/literature make sense? Are there other ways to interpret the data? What were the weaknesses of this paper and did they address those weaknesses? Is all of their discussion relevant? Have any ideas been overemphasized or underemphasized? Suggest specific revisions. Should some sections of the manuscript be expanded, condensed or omitted? What underlying assumptions do the authors have? Do their future studies seem appropriate (if none were listed, what do you think

some future studies could be?)? Are their conclusions accurately summarized? What are the strengths and weaknesses of the discussion section?

General Summary:
What are the overall strengths and weaknesses of this research article? What conclusions or key information can you take away from this? Do you agree or disagree?

Due: Upload typed word document to TCU Online by 10:00am of the assigned presentation date. Present the article in class on the assigned date.

Grading: The assignment is worth 50 points and is weighted 12% of the total course grade. The rubric (below) will be used to grade the assignment.

Biochemical, Physiological, and Molecular Aspects of Human Nutrition Student's Name: _____
NTDT 55343
Willis, Spring 2022

Journal Article Presentation Rubric

Criteria		5-Exemplary (A)	4-Accomplished (B)	3-Satisfactory (C)	1-Poor (F or below)
Organization	Relevance in field of nutritional sciences	Place of study in field clearly described, illuminating links to other studies or topics made	General relevance of article in field described	Attempt made to place in context, possibly not quite appropriately	No attempt made to describe context of study
	Overall organization	Overall purpose methods, results and conclusions of article clearly stated; seemingly effortless and seamless logical flow	Purpose, methods, results, and conclusions clearly stated; most of presentation flows logically	Purpose, methods, results and conclusions stated; possibly some awkwardness in logical flow	Major sections missing or lack logical flow
Apply critical thinking skills. (KRDN 1.3)	Evaluating	Clearly articulated, well supported statements of value and/or shortcomings of study	Good attempt at evaluation with some support for conclusions; possibly more negative than positive comments	Some attempt at evaluation, comments but not necessarily well supported	No attempt to evaluate study or evaluative statements unsupported or inappropriate
	Interpreting	Accurately provided meaning to data, made inferences and predictions from data	Mostly provided meaning to data, made inferences and predictions from data	Partially provided meaning to data, made inferences and predictions from data	Inaccurately provided meaning to data, made inferences and predictions from data
	Analyzing	Accurately interprets evidence, statements, graphics, questions, etc.	Interprets evidence, statements, graphics, questions, etc. with some error	Misinterprets evidence, statements, graphics, questions, etc.	Offers biased interpretations of evidence, statements, graphics, questions
	Synthesizing	Accurately connected or integrated information to support an argument or reach a conclusion	Connected or integrated information to support an argument or reach a conclusion with some errors	Connected or integrated information to support an argument or reach a conclusion with many errors	Inaccurately connected or integrated information to support an argument or reach a conclusion
Content & Development	Appropriate details	Justifies key results and procedures, explains assumptions and reasons; Judicious choice of details maximizes interest and understanding	Enough critical details presented for understanding, unnecessary details generally omitted; Justifies some results or procedures, explains reasons.	Most important details included but may include too much or too little detail for easy understanding; Justifies few results or procedures, seldom explains reasons.	Some critical details missing, unnecessary details may be present; Does not justify results or procedures, nor explain reasons.
	Clarity of explanations	Sophisticated use of language maximizes interest, enjoyment, and comprehension; explanations very clear, factually correct	Most explanations clear and easy to understand, mostly factually correct	Overall meaning is understandable; possibly some areas of slight confusion or minor factual errors	Serious difficulty explaining ideas, major factual errors; lack of comprehensibility
Presentation	Use of terminology	Correct use of all terminology, attention to nuances of meaning, judicious use of clearly defined jargon	Few errors in use of terminology; definitions provided for technical terms, overuse of jargon avoided	Most terms used correctly, possibly some incorrect usage or use of unnecessary or undefined jargon	Jargon terms used incorrectly, without definition; attempting to sound "scientific" without understanding meaning of terms
	Presentation style	Sophisticated, elegant style, complex yet lucid sentence structure, flawless grammar; fielded questions from audience appropriately	Good, basic presentation style, easy to comprehend, few errors, almost entirely in author's own words, little paraphrasing or unnecessary quotation; Mostly fielded questions appropriately	Mostly basic, correct presentation style, relatively few errors and little awkwardness, minimal use of unnecessary quotation or paraphrasing; Fielded questions with many errors	Serious errors and awkwardness, excessive use of quotation in place of author's own words, excessive paraphrasing; Did not answer questions appropriately
Possible Points		X5 =	X4 =	X3 =	X1 =
Total Points =		/50 = _____%			

KEY
Introduction: Students introduced to the knowledge and skills related to the program-level learning outcome in this course.
Reinforced: The course is reinforcing or practicing the knowledge and skills related to the program-level learning outcome
Mastered: Students have had sufficient practice and may now demonstrate that they have mastered the knowledge and skills related to the program-level learning outcome.

Course information:			Program Learning Outcomes:
Course Prefix	Number	Course name	Students will describe concepts of nutritional genomics and how they relate to medical nutrition therapy, health and disease.
NTDT	60443	Nutritional Genomics	1,2,3
NTDT	60453	Nutrition Ecology	
NTDT	50343	Aspects of Human Nutrition	

1
2
3

Students will develop an educational session or program/educational strategy for a target population.	Students will apply critical thinking skills.	[insert outcome here]4	[insert outcome here]5
1,2,3			
	1,2,3		

[insert outcome here]6	[insert outcome here]7	[insert outcome here]8