Institutional Effectiveness
2019-2020

Program: Interdisciplinary Studies BS

College and Department: College of Interdisciplinary Studies - School of Interdisciplinary Studies

Contact: Steve Frye

Mission: The School of Interdisciplinary Studies is a university-wide academic unit whose mission is to provide innovative, high quality educational opportunities in response to changing needs of the diverse population within TTU's service area and beyond.

Student Learning Outcomes:

1. I.S. students will be able to demonstrate the skills and knowledge necessary to engage in critical thinking and [problem solving] leadership development.

    - Interdisciplinary Studies majors will develop critical thinking skills, as measurable through the Senior Exit Exam.

2. Each I.S. student will develop a program of study that integrates learning from two academic emphasis areas, and demonstrates that integration through the successful completion of a senior-level capstone project.

    - Each student will develop and complete an interdisciplinary program of study that draws from two academic areas.
    - Each student will complete the Culminating Project course during his/her senior year.

3. I.S. students will be able to identify and research a topic from various perspectives, address significant problems that impact a global society, and communicate findings effectively.

    - Each student will develop a research paper or project that serves to synthesize concepts from the students' two concentration areas.
    - Each student will successfully complete the research paper or project report to an acceptable level, correctly utilizing appropriate academic sources.

A departmentally developed curriculum map can be found in Appendix 1 that shows the connections between courses and student learning outcomes.

Assessment Methods:

1. *Senior Exit Exam:* The Senior Exit Exam is administered to every student who graduates from TTU, with the exception of non-traditional students. This assessment evaluates students in the area of critical thinking. Scores are aggregated by major and reported annually. The California Critical Thinking Test is a well-tested measure of critical thinking, and is accepted by the University as a whole. (It must be noted that the exception of Non-traditional student scores is a university policy and not one of the SOIS. The exemption leads to the exclusion of over 40% of our majors from the

data. It's our goal to work toward the inclusion of all SOIS students.)

The School of Interdisciplinary Studies uses the Senor Exit Exam to evaluate majors in Critical Thinking. The goal is to have an increasing score in the Exam annually, and to meet or exceed the university average score.

2. *Senior Capstone Project Assessment Rubric:* The Senior Capstone course is required of all Interdisciplinary Studies majors. Each student must complete either a 6000 word research paper or a real-world project that integrates the two academic concentration areas.

   Faculty members complete the rubric on each student that completes the course, entering a score based on the rubric. The scores are combined to get an overall score for each semester's cohort of students.

   Data from the rubric is used to assess overall preparedness for the senior project, and student development in research question development, analysis, integration and synthesis of concentration areas, documentation, and critical thinking. Data is also used in program evaluation to assess areas of needed improvement. A score of 2.5 is adequate, 3.0 is considered acceptable, 3.5 advanced, and 4.0 stellar.

Results:

1. *I.S. students will be able to demonstrate the skills and knowledge necessary to engage in critical thinking and leadership development.*

   - *Interdisciplinary Studies majors will develop critical thinking skills, as measurable through the Senior Exit Exam.*

	2014-2015		2015-2016		2016-2017		2017-2018		2018-2019		2019-2020	
COLLEGE	Mean	N*	Mean	N*	Mean	N*	Mean	N*	Mean	N*	Mean	N*
Agriculture & Human Sciences	18.2	122	16.8	111	17.1	158	15.0	92	13.9	143	14.4	75
Arts & Sciences	17.8	324	17.5	304	16.2	403	17.5	223	18.3	225	16.9	113
Business	16.7	193	19.9	137	18.7	308	20.0	236	15.1	238	15.2	142
Education	16.8	357	16.3	300	16.8	337	14.7	116	14.7	232	13.7	176
Engineering	17.2	312	16.0	319	16.0	383	20.6	351	20.3	359	18.6	205
Interdisciplinary Studies	16.6	39	17.5	26	17.0	70	15.8	54*	14.7	96*	14.3	61
Nursing	18.7	43	15.8	52	21.0	106	17.1	105	16.6	92	17.2	52
TTU Average	17.7	1410	16.9	1485	17.0	1767	17.6	1259	16.8	1515	16.1	1365
CCTST National Average	≈ 17.1		≈ 17.1		≈ 16.2		≈ 16.2		≈ 15.4			≈ 15.4

New Data Available - by Major

2015-16		2016-17		2017-18		2018-19		2019-20	
Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
15.2	59	17.0	60	15.1	44	14.6	65	14.5	47

2. *Each I.S. students will develop a program of study that integrates learning from two academic emphasis areas, and demonstrates that integration through a senior-level capstone project.*

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Area	Thesis/Problem Question	Information Seeking Selecting and Evaluating	Analysis	Synthesis	Documentation	Product Process	Critical thinking
Fall 2015	3.59	3.43	3.32	3.38	3.26	3.15	3.26
Spring 2016	3.59	3.39	3.43	3.41	3.39	3.27	3.15
Fall 2016	-	-	-	-	-	-	-
Spring 2017	3.66	3.51	3.35	3.51	3.27	3.32	3.51
Fall 2017	3.61	3.56	3.33	3.37	3.51	3.18	3.37
Spring 2018	3.47	3.48	3.36	3.46	3.33	3.33	3.46
Fall 2018	3.6	3.58	3.39	3.48	3.33	3.38	3.44
Spring 2019	3.65	3.24	3.28	3.4	3.18	3.11	3.56
Fall 2019	3.58	3.5	3.26	3.32	3.24	3.3	3.38
Spring 2020	3.74	3.37	3.42	3.37	3.16	3 27	3.34

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Modifications for Improvement:

Student Learning Outcome 2 & 3

The staffing of the Capstone course is evaluated each semester to ensure that the best student/faculty assignments are possible. In 2018 an instructor was added to work specifically with students taking courses in off-campus cohort programs. In Fall 2020, a section was added to address the growing number of students with science-related Emphasis areas.

Although students continue to meet and exceed performance on the capstone rubric, faculty discussion has noted a need to support students in the areas of identifying quality research sources, proper citation methods, and writing support. Dr. Frye, Director of the SoIS has begun the process of developing a course that will be taken immediately preceding the semester the student takes LIST 4995.

In Fall 2020, a new pre-capstone course was offered with the goal of increasing the preparedness of our students for the challenge and rigor of the capstone experience. The new course, LIST 4994, is being offered each semester. The course targets:

Synthesis of learning in Emphasis Areas

Discovering quality sources

Organizing results of a literature review

Documentation of sources

Development of research ideas into a workable proposal

The FY2021 report will follow up on this modification and evaluate the impact of LIST-4994.

Appendices

1. Curriculum Map
2. Senior Capstone Project Assessment Rubric

Appendix 1: Curriculum Map

Course Number	Course Title	Student Learning Outcomes		
		SLO 1 (Critical Thinking)	SLO2 (Develop POS)	SLO3 (Research Problem)
LIST 4994	Introduction to Capstone	X	X	X
LIST 4995 or PRST 4995	Capstone Project	X	X	X
Emphasis Area 1 (12 Credits)		X	X	
Emphasis Area 2 (12 Credits)		X	X	

Emphasis area courses must be upper division (3000, 4000).

Emphasis area #1 must be different from emphasis area #2.

Students must earn a C or better in LIST 4995 for program completion.

Appendix 2: Senior Capstone Project Assessment Rubric

Rubric for UNIV 4995 Paper/Project

	Thesis/ Problem/ Question	Information Seeking/Selecting and Evaluating	Analysis	Synthesis	Documentation	Product/Process	Critical Thinking
4	Student posed a thoughtful, creative question that engaged them in challenging or provocative research. The question breaks new ground or contributes to knowledge in a focused, specific area.	Student gathered information from a variety of quality electronic and print sources, including appropriate licensed databases. Sources are relevant, balanced and include critical readings relating to the thesis or problem. Primary sources were included (if appropriate).	Student carefully analyzed the information collected and drew appropriate and inventive conclusions supported by evidence.	Student demonstrated a quality synthesis of materials from both emphasis areas. Ideas were organized in a logical manner and conclusions show a strong integration of ideas drawn from multiple sources.	Student documented all sources, including visuals, sounds, and animations. Sources are properly cited, both in-text/in-product and on Works-Cited/Works-Consulted pages/slides. Documentation is error-free.	Student effectively and creatively used appropriate communication tools to convey their conclusions and demonstrated thorough, effective research techniques. Product displays creativity and originality.	Student demonstrated critical thinking by asking appropriate questions, considering legitimacy of information and sources, and evaluating/including multiple perspectives.
3	Student posed a focused question involving them in challenging research.	Student gathered information from a variety of relevant sources--print and electronic.	Student (s) product shows good effort was made in analyzing the evidence collected.	Student included both concentration areas in the development of the project. Student logically organized the product and made good connections among ideas.	Student documented sources with some care, Sources are cited, both in-text/in-product and on Works-Cited/Works-Consulted pages/slides. Few errors noted.	Student effectively communicated the results of research to the audience.	Student demonstrated critical thinking by asking appropriate questions, and considering legitimacy of information and sources.
2	Student constructed a question that lends itself to readily available answers.	Student gathered information from a limited range of sources and displayed minimal effort in selecting quality resources.	Student conclusions could be supported by stronger evidence. Level of analysis could have been deeper.	Student did not effectively draw from both concentration areas. Greater effort could have been put into organizing the product and drawing conclusions.	Student needed to use greater care in documenting sources. Documentation was poorly constructed or absent.	Student needed to work on communicating more effectively.	Student needed to ask more critical questions in the process of developing the project.
1	Student relied on teacher-generated questions or developed a question requiring little creative thought.	Student gathered information that lacked relevance, quality, depth and balance.	Student conclusions simply involved restating information. Conclusions were not supported by evidence.	Student work is not logically or effectively structured.	Student clearly plagiarized materials.	Student showed little evidence of thoughtful research. Product does not effectively communicate research findings.	Student did not apply critical thinking to the topic or the information used in the research.