

Institutional Effectiveness

2021-2022

Program: Psychology BS

College and Department: College of Education – Department of Counseling & Psychology

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Mission: The Department of Counseling and Psychology includes the mission of offering a strong undergraduate academic program in psychology. The undergraduate psychology program is designed to develop skills that will lead to life-long success in many professional fields including graduate study in psychology, and is designed to develop effective communication, critical thinking, and life-long learning skills in the context of acquiring knowledge in the field of psychology. The undergraduate program includes a two-semester culminating senior thesis project that every student completes under the supervision of a faculty member to further develop these critical thinking and communication skills. Instruction is a major component of the academic mission of the department. A committed faculty serves the program through instruction, scholarly activity, and service aimed at providing high quality academic experiences for students. The department is strongly supportive of an environment that protects and promotes human welfare and equal opportunity. The department also serves the wider University Community, Upper Cumberland region, State, and Nation through research and public service.

Program Goals:

- PG 1: Maintain adequate faculty with appropriate expertise to deliver a quality program.
- PG 2: Maintain appropriate facilities and equipment to deliver a quality program and provide faculty with resources needed to succeed.
- PG 3: Maintain sufficient student enrollment at the undergraduate level to ensure the viability of the program and course offerings.
- PG 4: Students enrolled in the undergraduate program will report that they are receiving accurate, personalized, and supportive academic advisement that is equal to (not statistically different from) or better than the institutional and national average.

Student Learning Outcomes:

SLO 1: Students in the baccalaureate program in psychology will develop knowledge of psychology.

Students completing the baccalaureate program in psychology will compare favorably in their knowledge of psychology with graduates of undergraduate programs in the state, region, and nation (scoring within one standard deviation of the national average for psychology).

SLO 2: Students in the baccalaureate program in psychology will develop research skills.

Students completing the baccalaureate program in psychology will be capable of planning, implementing, and presenting an original research project.

SLO 3: Students graduating will demonstrate the ability to think critically, communicate effectively, learn on their own, and work effectively with others.

Assessment Methods:

PG 1: Maintain adequate faculty

1. Faculty credentials - One measure is that faculty credentials meet SACS/COC standards.
2. IDEA teaching evaluations - An indirect measure of student perceptions of teaching effectiveness is the IDEA system. We would expect teaching effectiveness to meet or exceed the University and National average if we had adequate faculty with appropriate expertise delivering a quality program.
3. External Program Evaluations - An external evaluation of the psychology program is conducted approximately every four years.
4. Number of Student Credit Hours (SCH) generated by psychology courses

PG 2: Maintain appropriate facilities and equipment

1. Assessment of Facilities – There are a variety of means both internal and external to the department including the University evaluation of the condition of every building on campus and plans for maintenance and renovation on a regular schedule. Instructional Technology Services (ITS) sets minimum standards for computer equipment used by faculty and students at the University. Equipment that does not meet this minimum standard in the department is disconnected and replaced. The Departmental faculty are also encouraged to evaluate the facilities, available equipment, research and testing material and services, and identify needs. External program evaluations are also conducted approximately every four years.

PG 3: Maintain sufficient student enrollment

1. Enrollment numbers for psychology majors
2. Number of Student Credit Hours (SCH) generated by psychology courses

PG 4: Supportive academic advisement

1. National Survey of Student Engagement (NSSE) – The NSSE includes a question on the survey that provides a direct measure of student satisfaction with advisement. This survey is administered to a stratified random sample of freshmen and senior level students at TTU.

Student Learning Outcomes:

SLO 1: Develop knowledge of psychology

1. ETS major field test in psychology – The major field test is administered to every graduating psychology major. This test assesses senior level student’s knowledge of psychology in a variety of areas and provides a national benchmark for comparison.

SLO 2: Develop research skills

1. Senior Thesis Evaluation - Students are required to orally present their research proposal to a group that includes all faculty supervising senior thesis projects. Students are also required to submit an APA style manuscript of their thesis study. The work is evaluated by a common rubric that evaluates effective planning, implementation of study, and effective oral and written communication.
2. National Survey of Student Engagement (NSSE) – The NSSE includes questions on the survey that provide an indirect measure to evaluate student perceptions about whether their program of study required class presentations, prepared two or more drafts of a paper before turning it in, worked on a paper or project that required integrating ideas and information from various sources, and participated in culminating senior thesis. This survey is administered to a stratified random sample of freshmen and senior level students at TTU.

SLO 3: Think critically, communicate and work effectively with others

1. California Critical Thinking Skills Test (CCTST) - A mandatory requirement for graduation, the CCTST measures some skills related to critical thinking including formal logic and deduction.
2. National Survey of Student Engagement (NSSE) – The NSSE includes questions on the survey that provides an indirect measure to evaluate student perceptions of whether the institution helped them learn how to learn on their own, think critically and analytically, work effectively with others, and speak clearly and effectively. This survey is administered to a stratified random sample of freshmen and senior level students at TTU.

Results:

PG 1: Maintain adequate faculty

All faculty credentials for courses taught in this discipline have met SACS/COC standards. These results suggest we are using appropriately qualified instructors in our courses. Student evaluations of teaching in the program exceed IDEA averages across all four major outcomes each year.

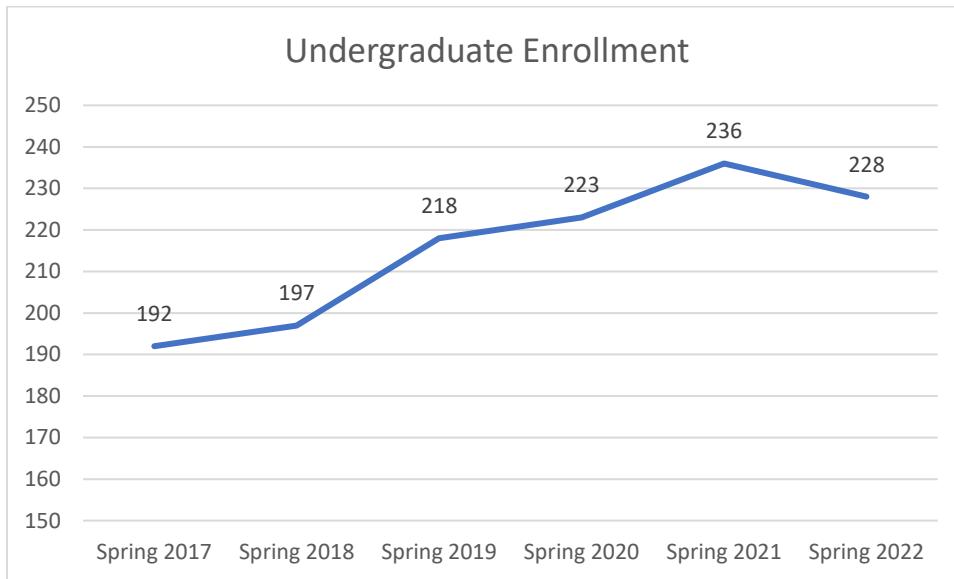
Overall Outcomes	2019-2020 (Unit---IDEA Averages)	2020-2021 (Unit---IDEA Averages)	2021-2022 (Unit---IDEA Averages)
Progress on Relevant Objectives	54---49	56.3---49	54.7---49
Excellence of Teacher	55.3---50	56.3---50	54.7---50
Excellence of Course	56.3---51	57.3---51	54.7---51
Summary Evaluation	55.3---50	57---50	55---50

PG 2: Maintain appropriate facilities and equipment

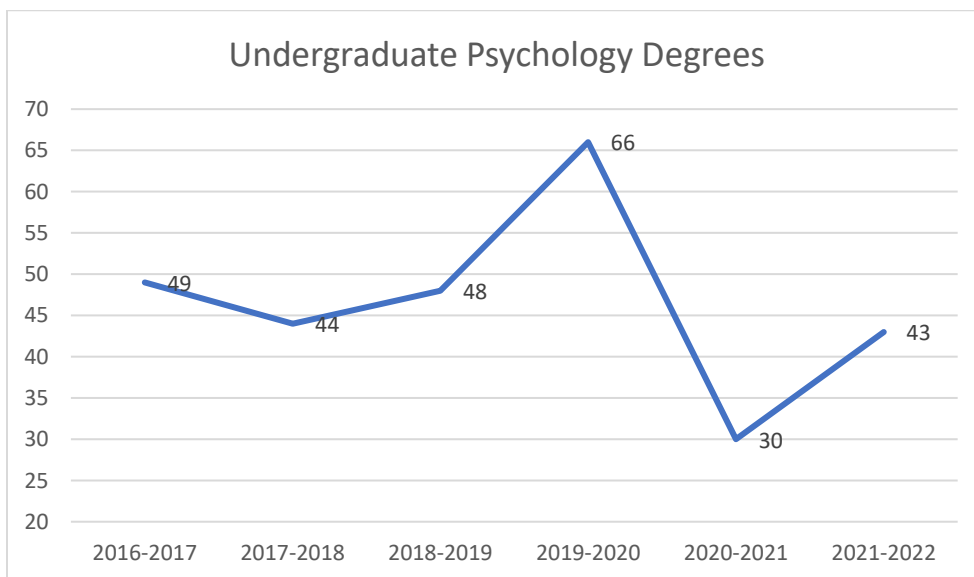
We have added and maintained HEPA air cleaners to faculty offices and classrooms; we have purchased new replacement filters for the current year, as well. One of our faculty members also started a new grant-funded research lab, and space was secured for them to house all grant materials and equipment.

PG 3: Maintain sufficient student enrollment

The number of undergraduate psychology majors has steadily increased over the past few years, while the overall university enrollment has largely remained steady (or experienced some small declines). We're expecting some increases in this area, given our large Freshman class this year.



Our number of graduates has rebounded from the previous year and we're expecting that to continue, with a similar number of Senior students this current year ($N = 51$).



PG 4: Supportive academic advisement

Our advisement data are seeing a small decline this year, relative to previous data, TTU, and National means. We have experienced some changes in advisor staffing, which should now remain stable and help increase students' perceptions of their advisement experience. We've also implemented the Launchpad Student Success Center for our freshmen students, which means our students experience a shift in advisement from their freshmen year to sophomore year; that shift may result in some dissatisfaction across our students. To supplement those types of advisement interactions, our faculty also serve as faculty mentors for students, helping to ensure that students do have a single mentor throughout their years as an undergraduate student.

NSSE: Quality of interactions with academic advisors

		First-Year	Seniors
2014	Psychology at TTU	4.33	5.77
	TTU	4.87	5.3
	National	5.11	5.2
2017	Psychology at TTU	5.45	5.38
	TTU	5.4	5.3
	National	5.2	5.2
2019	Psychology at TTU	6.04	5.79
	TTU	5.6	5.5
	National	5.3	5.1
2021	Psychology at TTU	4.4	3.7
	TTU	5.6	5.4
	National	5.4	5.2

SLO 1: Develop knowledge of psychology

Scores from students graduating from our program are within one standard deviation of the national average on the ETS major field test in psychology in each of the preceding years. This is the case for students' overall score, as well as each of the four subscores.

ETS Major Field Overall Scores

Year	TTU	National	Std Dev
2016-2017	153	156.1	15.1
2017-2018	152	156	15
2018-2019	152	156	15
2019-2020	154	157	14.9
2020-2021	154	156	12
2021-2022	156	156	15

ETS Subscores (TTU---National)

Year	Learning & Cognition	Percept/Physio	Clinical Abnormal	Developmental Social	STD Dev
2016-2017	52---56	58---56	54---56	53---56	~15
2017-2018	51---56	54---56	52---56	52---56	~15

2018-2019	53---56	53---56	55---56	53---56	~15
2019-2020	56---57	52---57	54---57	54---56	~15
2020-2021	54---56.7	53---55.9	52---56.1	59---55.1	~12
2021-2022	52---56	50---55	52---56	60---55	~15

SLO 2: Develop research skills

All graduates of our undergraduate program plan and conduct a senior thesis project for submission to the departmental faculty that involves a review of the literature, an oral proposal, data collection, statistical analysis, and preparation of a written report in APA format. Students must complete the thesis in order to graduate with a degree in psychology. Students are also encouraged to present their research at regional and/or national meetings and venues. Many students also present their work at TTU's Research and Creative Inquiry Day, as well as meetings of Association for Psychological Science, Psychonomic Society, Society for Personality and Social Psychology, and more. One of our students received a CISE Grant this past year, as well.

A rubric has been developed and distributed to students to ensure that all are aware of the competencies that we are seeking to achieve and are evaluating. Beginning Fall 2021, the Senior Thesis faculty began to measure variability in these core competencies (see also 'Modifications for Improvement').

Two NSSE items pertain to this SLO; in both cases, more psychology majors reported 'making a class presentation' and 'participating in a culminating senior thesis' than the TTU and National means.

NSSE Question	Year	TTU Psychology	TTU	National
Made a class presentation	2014	3.33	2.7	2.8
	2017	3.36	2.7	2.6
	2019	3.13	2.7	2.7
	2021	2.6	2.5	2.5
Participate in a culminating senior thesis	2014	100%	47%	71%
	2017	100%	55%	35%
	2019	93%	59%	44%
	2021	83%	49%	41%

SLO 3: Think critically, communicate and work effectively with others

All students are required to successfully complete a senior thesis to graduate. In order to improve communication skills, the senior thesis involves an oral presentation of a research proposal, akin to a Master’s or Doctoral proposal presentation. Students later present a research poster on the final day, during which faculty from the department ask questions and discuss results with students in a conference-like setting.

Our seniors are also required to take a variety of general education exit exams. In recent years, we’ve observed large increases in CCTST scores (note the re-scaling), relative to previous years, as well as increases relative to the TTU and CCTST means. Department-driven encouragement, in combination with our (1) new Problem-Solving and Critical Thinking courses and (2) small sections of Information Literacy, likely factor into these increases.

California Critical Thinking Skills Test

	2016-2017		2017-2018		2018-2019		2019-2020		2020-2021		2021-2022	
MAJOR	Mean	N*	Mean	N*	Mean	N*	Mean	N*	Mean	N*	Mean	N*
PSY	16.4	45	14.8	34	15.5	33	17.4	21	75.8	30	75.7	44
TTU Total	17.0	1767	17.6	1295	16.8	1515	16.1	1365	74.4	1445	75.2	1457
CCTST	16.2		16.2		15.4		15.4		74		73.3	

NSSE Question	Year	TTU Psychology	TTU	National
Thinking critically and analytically	2014	3.38	3.3	3.3
	2017	3.58	3.2	3.3
	2019	3.50	3.3	3.3
	2021	3.5	3.3	3.3
Working effectively with other	2014	3.23	3.10	3.06
	2017	3.00	3.10	3.00
	2019	3.07	2.80	2.90
	2021	3.1	3.1	3.0
Speaking clearly and effectively	2014	3.23	2.9	3.0
	2017	3.17	2.8	2.9
	2019	3.36	2.8	2.9
	2021	2.8	2.9	2.8

Modifications for Improvement:

SLO 2: This year, we began data collection on research skills, primarily during students’ Senior Thesis project. This data collection involves the rubric used to measure research competencies. As we continue data collection, we’ll track students’ development from Thesis I to II. At this time, we have just one round of data collection, but we can compare Thesis Is and IIs, as well as the scores themselves, to see where we can improve. From these data, we can see improvements across all areas from Thesis I to II.

Rubric Competencies	Thesis I Mean	Thesis II Mean
Creativity	6.39	7.73
Reasoning & Critical Thinking	7.00	7.91
Theoretical Connections and Applications of Research	6.17	7.36
Statistical Proficiency	5.94	6.68
Intellectual Resilience	7.00	8.27
Flexibility	7.17	8.82
Communication with Faculty and Peers	7.11	8.27
Professional Skills	7.28	7.82
Communication Style	6.78	7.91
Structure and Organization	7.11	8.45
Time Management	6.33	7.64
Professional Resources and Support Services	6.94	7.77

PG2 and SLO2: We have added the Biopac BSL-Home units to our Special Topics: Emotion & Motivation class in Spring 2021. We acquired 12 units that students could take home in order to do psychophysiological labs in a socially-distant setting. They chose emotional stimuli in groups and ran mini-experiments to see how their physiological responses changed in response to calming and activating emotional stimuli. We also plan to use these units for an in-person lab in Experimental Psychology this upcoming year. They can get hands-on experience with a new type of measure and data processing.

Appendices

1. Curriculum Map
2. Senior Thesis Rubric

Appendix 1: Curriculum Map

	Course	Title	Student Outcomes				
			SLO 1	SLO2	SLO3		
			Knowledge of Psychology	Research Skills	Critical Thinking	Communication	Teamwork
Required Coursework	PSY 1030	Intro to Psychology	X		X		
	PSY 3010	Statistics and Experimental Design	X	X	X		X
	PSY 3020	Information Literacy in Psychology	X	X	X	X	X
	PSY 3110	Experimental Psychology	X	X	X	X	X
	PSY 2130	Life Span Development Psychology	X	X	X	X	
	PSY 3300	Introduction to Social Psychology	X	X	X	X	X
	PSY 4050	Learning and Cognition	X	X	X	X	X
	PSY 4130	Brain and Behavior	X		X	X	
	PSY 4150	Personality	X	X	X	X	
	PSY 4160	Abnormal Psychology	X		X		X
	PSY 4930	Senior Thesis I	X	X	X	X	X
	PSY 4931	Senior Thesis II	X	X	X	X	X
	Electives						
PSY 2110		Psychology of Adjustment	X		X	X	
PSY 2210		Educational Psychology	X		X	X	X
PSY 3000		Problem Solving	X	X	X	X	X
PSY 3030		Careers in Psychology		X		X	
PSY 3050		Parapsychology	X	X	X	X	
PSY 3120		Sensation and Perception	X	X	X		
PSY 3140		Experimental Social Psy	X	X	X	X	X
PSY 3150		Cognitive Psychology	X	X	X	X	X
PSY 3160		Applied Research Methods	X	X	X	X	X
PSY 3400		Industrial Psychology	X		X	X	
PSY 3410		Group Dynamics	X		X	X	X
PSY 4100		Child Psychology	X	X	X	X	
PSY 4140		Health Psychology	X	X	X	X	X
PSY 4200		Adolescent Psychology	X		X		
PSY 4250		Intro to Psychological Testing	X		X		
PSY 4300		Adult Psychology	X		X		
PSY 4320		Intro-Therapeutic Techniques	X		X	X	X
PSY 4400		Psychopharmacology	X		X		X
PSY 4600		Data Analytics in Psychology	X	X	X	X	X
PSY 4800		History of Psychology	X		X		
PSY 4810		Concepts of Gerontology	X	X	X		
PSY 4940		Field Experience in Psychology		X	X	X	

Appendix 2: Senior Thesis Rubric

Senior Thesis Course Rubric						
	Competency	Evaluation				Rating
		Outstanding (4)	Satisfactory (3)	Unsatisfactory but Improving (2)	Unsatisfactory (1)	
Intellectual Autonomy	Creativity & Originality	Student exhibits creativity in the examination & interpretation of existing theory. Student generates original hypotheses, methods, & experimental designs.	Student shows some creativity in the examination & interpretation of existing theory. Student is able to come up with sound hypotheses, methods, & designs even though they are not necessarily novel.	Student is unable to adequately demonstrate creativity in the examination & interpretation of existing theory. The hypotheses, methods, & designs produced are weak and need improvement.	Student shows no creativity or originality in the examination & interpretation of existing theory. The hypotheses, methods, & designs generated are severely flawed.	
	Reasoning & Critical Thinking	Student demonstrates adeptness in learning, assessing, integrating, and applying new information.	Student adequately demonstrates an ability in learning, assessing, integrating, and applying new information.	Student shows some signs of being able to learn, assess, integrate, and apply new information; however, they are erratic in the demonstration of these skills.	Student is resistant to incorporating new information. The student shows no initiative in the development/cultivation of their reasoning or critical thinking skills.	
	Theoretical Connections & Applications of Research	Student demonstrates a clear & thorough understanding of literature & research. Student skillfully addresses both obvious & subtle gaps in current theory/research, adroitly connecting theory to hypothesis/findings. The research referenced clearly shows appropriate relevance, significance, breadth/scope.	Student demonstrates a good understanding of literature & research. Student acknowledges & addresses major issues in current theory/research, sufficiently connecting theory to hypothesis/findings. The research referenced shows appropriate relevance, significance, breadth/scope.	Student demonstrates an attempt at understanding literature & research. Student partially acknowledges & addresses issues in current theory/research, & attempts to connect theory to hypothesis/findings. The research referenced shows little appropriate relevance, significance, breadth/scope.	Student demonstrates no understanding of literature & research. Student does not acknowledge or address any issues in current theory/research, & does not connect theory to hypothesis/findings. Research referenced clearly shows no appropriate relevance, significance, breadth/scope.	
	Statistical Proficiency	Student exhibits an exceptional ability to read, interpret, apply, & communicate statistical information.	Student exhibits an adequate ability to read, interpret, apply, & communicate statistical information.	Student is able to read, interpret, apply, & communicate statistical information; however, they are erratic in the application of these skills.	Student is unable to read, interpret, apply, & communicate statistical information.	
Adapability and Ambiguity	Intellectual Resilience	Student exhibits an exceptionally responsible, non-judgmental, patient, resilient demeanor throughout the learning process. Student acts & responds thoughtfully & constructively to obstacles & opportunities. Student clearly learns from mistakes & obstacles. Student maintains an exceptional level of organization, motivation, & focus throughout the learning process.	Student exhibits a responsible, non-judgmental, patient, resilient demeanor throughout the learning process. Student acts & responds thoughtfully & constructively to obstacles & opportunities. Student begins to incorporate lessons from encountering mistakes & obstacles. Student maintains a high level of organization, motivation, & focus throughout the learning process.	Student needs significant improvement in cultivating a responsible, non-judgmental, patient, resilient demeanor throughout the learning process. Student rarely acts & responds thoughtfully & constructively to obstacles & opportunities. Student does not incorporate lessons from encountering mistakes & obstacles. Student maintains an average to less than average level of organization, motivation, & focus throughout the learning process.	Student unable to cultivate a respectful and professional demeanor throughout the learning process. Student acts & responds rashly & inappropriately to obstacles & opportunities. Student does not demonstrate ability to learn lessons from encountering mistakes & obstacles. Student clearly lacks organization, motivation, & focus throughout the learning process.	
	Flexibility	Student expertly deals with ambiguous conditions. Student is receptive to feedback, is willing to learn or try new concepts/methods, & demonstrates an exceptional ability to adapt to changing circumstances.	Student effectively deals with ambiguous conditions. Student is relatively receptive to feedback, is willing to learn or try new concepts/methods, & demonstrates an increasing ability to adapt to changing circumstances.	Student is unsuccessful in attempting to deal with ambiguous conditions. Student is somewhat receptive to feedback, is reluctant to learn or try new concepts/methods, & demonstrates a limited ability to adapt to changing circumstances.	Student is unable to deal with ambiguous conditions. Student is resistant to feedback, will not learn or try new concepts/methods, & lacks the interest or ability to adapt to changing circumstances.	