

Institutional Effectiveness

2019-2020

Program: Psychology BS

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

Contact: Barry Stein

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.

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

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*

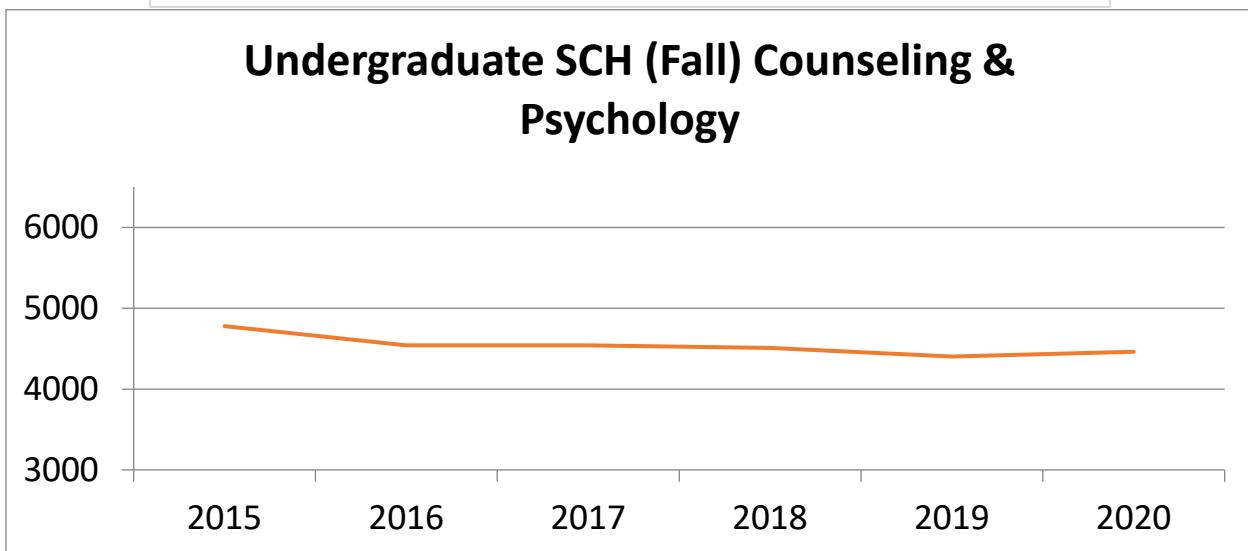
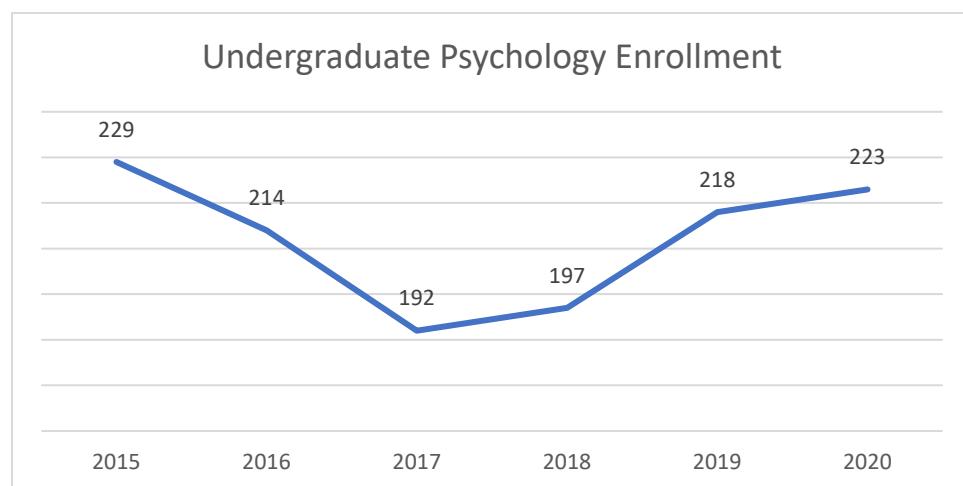
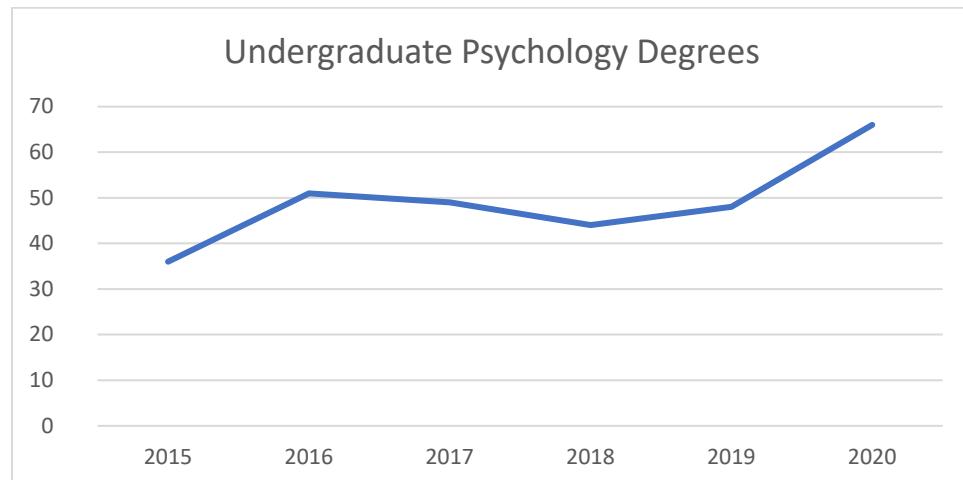
All faculty credentials for courses taught in this discipline have met SACS/COC standards. These results suggest we are using appropriately qualified instructors in our courses. Student evaluations of teaching in the program generally meet or exceed institutional and national averages when comparing the students' progress on relevant course objectives.

PG 2: Maintain appropriate facilities and equipment

As COVID-19 impacted the university during spring semester, the department expended funds to move all faculty to laptop computers with office docking stations. Faculty received either MacBook Airs, or PC compatible laptops with specifications to meet current ITS recommendations. Zoom Pro licenses were provided to all faculty.

PG 3: Maintain sufficient student enrollment

The number of undergraduate psychology majors has fluctuated over the last seven years. During the last three year period, the number of majors has increased while the overall university enrollment has declined or remained steady. During the same period, our number of SCH has remained steady.



PG 4: Supportive academic advisement

Since moving our students' advising to the College of Education Student Success Center (effective 2017-2018), our students are reporting a greater quality of interactions with academic advisors. The course planning they receive from their academic advisors is supplemented by the career planning and other advice they receive from their undergraduate faculty mentor.

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

SLO 1: Develop knowledge of psychology

The average scores of students graduating from the baccalaureate program in psychology were within one standard deviation of the national average on the ETS major field test in psychology in each of the preceding years with variations from year that are probably due to individual differences in student ability in each cohort. Some faculty have requested more information about the content of the ETS major field test in psychology so they could determine if there is content that is not being covered in their courses.

ETS Major Field Overall Scores

Year	TTU	National	Std Dev
2015-2016	152	156.3	15
2016-2017	153	156.1	15.1
2017-2018	152	156	15
2018-2019	152	156	15
2019-2020	154	157	14.9

ETS Subscores

Year	Learning & Cognition	Percept/Physio	Clinical Abnormal	Developmental Social	STD Dev
2015-2016	51---56	55---56	52---56	52---56	~15
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

SLO 2: Develop research skills

All graduates of the baccalaureate in psychology 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. Despite the pandemic, many students were still able to 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.

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. This rubric has also been mapped onto the core curriculum and is shown in the Senior Thesis Rubric Course Matrix. Future iterations of Senior Thesis will involve data collection, such that faculty will determine variability in these core competencies.

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
Participate in a culminating senior thesis	2014	100%	47%	71%
	2017	100%	55%	35%
	2019	93%	59%	44%

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 and a poster presentation on the final day during which faculty from the department ask questions and discuss results with students in a conference like setting. This past year some of the presentations had to be done on Zoom because of the COVID-19.

All students are required to successfully complete a senior thesis to graduate. In addition, senior level students are required to take a variety of general education exit exams. In the past, psychology students had scored above the national average on the CCTST which is a test of reasoning skills. In more recent years the administration of the tests has not received the motivational encouragement of the retired VP who tried to ensure that students took the test seriously. Consequently, scores on this test have declined since the VP's retirement. Last year the administration of the CCTST was assigned to the college and department to administer in the hopes that students can be better motivated to perform on the test. We've observed large increases in CCTST scores, relative to recent years. Department-driven encouragement, in combination with our new Problem-Solving and Critical Thinking courses likely factor into these increases.

California Critical Thinking Skills Test

	2015-2016		2016-2017		2017-2018		2018-2019		2019-2020	
MAJOR	Mean	N*								
PSY	19.9	16	16.4	45	14.8	34	15.5	33	17.4	21
TTU Total	16.9	1485	17.0	1767	17.6	1295	16.8	1515	16.1	1365
CCTST	≈17.1		≈16.2		≈16.2		≈15.4		≈15.4	

Psychology majors also participate in taking the CAT exam which is widely used to assess student's critical thinking. Significant gains have been obtained on the CAT in several key courses within the program including "Information Literacy in Psychology", and "Problem Solving."

Every three years the NSSE is administered at TTU. The results indicate that the perceptions of senior psychology majors at TTU compare favorably or are higher than other seniors at TTU and the national norms in several relevant areas. These areas include: the institution helping them to think critically and analytically, helping them communicate effectively, helping them work effectively with others.

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
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
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

Modifications for Improvement:

Student Learning Outcomes 2 & 3

Previous external reviews of the program have been impressed by the rigor of students preparation and engagement in research but have questioned why more students were not actively presenting their research at national conferences. With an increase in foundation funds provided by alumni, the faculty decided to make a concerted effort to financially support student research activities and attendance at conferences to present their research. These activities should enhance student success and entrance into graduate school. This involves strongly motivating and encouraging student to complete quality research projects that can be presented to a national audience.

A record number of student research projects (17) were accepted and presented at the national meeting of the APS in Washington DC last year. Many of these students went on to receive graduate fellowships across the country. This year the COVID-19 pandemic hit us during spring semester. Many projects had to be cut short and presentation opportunities were greatly curtailed if not completely eliminated as all travel has been eliminated. We are continuing to explore ways to effectively engage students in research and give them opportunities to present their research ideas whether it be to a limited audience or a virtual audience.

Finally, this year we offered three, smaller sections of our Information Literacy course each semester (relative to two in previous semesters). This course introduces and develops students' scientific literacy and critical thinking. Several of these sections also collected CAT data, pre- and post-course completion: a way to encourage and measure critical thinking skills.

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				
		Outstanding (4)	Satisfactory (3)	Unsatisfactory but Improving (2)	Unsatisfactory (1)	Rating
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.	
Adaptability 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.	

Professional/Personal Development	Communication with Faculty & Peers	Student demonstrates highly sophisticated communication skills: active listening, engaged dialogue, professional courtesy, appropriateness (language, response time, etc.) Student is able to begin a network of professional resources & colleagues.	Student demonstrates good communication skills: active listening, engaged dialogue, professional courtesy, appropriateness (language, response time, etc.) Student is interested in building a network of professional resources & colleagues.	Student demonstrates few communication skills; shows little grasp of active listening, engaged dialogue, professional courtesy, appropriateness (language, response time, etc.) Student shows little interest in building a network of professional resources & colleagues.	Student demonstrates no appropriate communication skills & shows no interest in building a network of professional resources & colleagues.	
	Professional Skills	Student demonstrates exceptional familiarity with professional publications; continued interest in research, publication, presentations, etc.; seeks to develop & improve professional skills. Student may already have identified areas of research interest.	Student demonstrates a working familiarity with professional publications; displays interest in research, publication, presentations, etc.; seeks to develop & improve professional skills.	Student demonstrates little familiarity with professional publications; displays little interest in research, publication, presentations, etc.; does not seek to develop & improve professional skills.	Student demonstrates no familiarity with professional publications; displays no interest in research, publication, presentations, etc.; sees no value in developing & improving professional skills.	
Effective Communication	Outstanding (4)	Satisfactory (3)	Unsatisfactory but Improving (2)	Unsatisfactory (1)	Rating	
	Style	Oral & written: Uses appropriate scientific language. Tone and subject fits target audience. Written: Demonstrates mastery of APA format, correct grammar/spelling. All communication (both oral & written) uses appropriate language & communicates at level of complexity & clarity appropriate for intended audience.	Oral & written: Uses appropriate scientific language, developing tone and subject to fit target audience. Written: Demonstrates good working skill, <10 APA formatting errors, <10 grammar/spelling errors. All communication uses appropriate language & communicates clearly but complexity/connections needs improvement.	Oral & written: Appropriate scientific language lacking, tone and subject do not align with target audience. Written: Demonstrates improving but rudimentary skill, <15 APA formatting errors, <15 grammar/spelling errors. Appropriate language somewhat lacking in all communication, clarity & complexity/connections need improvement.	Oral & written: Absence of any appropriate scientific language, tone and subject inappropriate for target audience. Written: Demonstrates no grasp of APA format & no basic language proficiency, >20 spelling/grammar errors. No subject or audience appropriate language, ideas unclear, lacks complexity & thought.	
Resource Utilization	Structure & Organization	Projects (papers, presentations, posters, etc.) adhere to given guidelines & show perceptive logical development. As applicable, projects have relevant & clearly defined sections; thoughtful, seamless transitions; and clear, detailed graphics.	Projects adhere to given guidelines & show good logical development. As applicable, projects have few structural problems, have clearly defined sections & thoughtful transitions, & appropriate graphics.	Projects do not fully adhere to given guidelines & show marginal (but attempted) logical development. As applicable, projects have some obvious organization problems, show attempted logical development, have major sections but awkward transitions, & graphics are below average.	Projects do not adhere to any of the given guidelines & lack any coherent organization. As applicable, projects show no logical development; have few, if any, major sections with no transitions; & have subpar, if any, graphic elements.	
	Time Management	Student effectively manages multiple tasks, allows adequate time for completion & revision. Student is able to respond to changes/obstacles & reallocate resources in order to maintain progress/meet deadlines.	Student maintains momentum on multiple tasks, allows adequate time for completion & revision. Student is improving in ability to respond to changes/obstacles & reallocate resources in order to maintain progress/meet deadlines.	Student struggles with managing multiple tasks, allows little time for completion & revision. Needs significant help in responding to changes/obstacles & reallocate resources in order to maintain progress/meet deadlines.	Student unable to manage multiple tasks, allows no time for completion & revision. Student does not respond to changes/obstacles & reallocate resources in order to maintain progress/meet deadlines.	
	Professional Resources & Support Services	Student demonstrates knowledge, use, & mastery of multiple online resources such as journals, databases, webinars/web courses, reference documents, videos, books, forums, etc. Student demonstrates knowledge, use, & mastery (as appropriate) of on campus resources such as library, research librarians, writing center, student success center, peer mentors, faculty.	Student demonstrates knowledge in use of multiple online resources such as journals, databases, webinars/web courses, reference documents, videos, books, forums, etc. Student demonstrates use & knowledge of on campus resources such as library, research librarians, writing center, student success center, peer mentors, faculty.	Student demonstrates little knowledge in use of multiple online resources such as journals, databases, webinars/web courses, reference documents, videos, books, forums, etc. Student has little knowledge or use of on campus resources such as library, research librarians, writing center, student success center, peer mentors, faculty.	Student demonstrates no knowledge in use of multiple online resources such as journals, databases, webinars/web courses, reference documents, videos, books, forums, etc. Student does not/refuses to use on campus resources such as library, research librarians, writing center, student success center, peer mentors, faculty.	