

### FINAL FACULTY SENATE APPROVAL ON APRIL 10, 2018

## **MEMORANDUM**

TO:

**Faculty Senate** 

FROM:

Jack Kirby

DATE:

April 2, 2018

SUBJECT:

Curriculum Proposal #17-18-22 REV #1

**Behavioral Sciences** 

I recommend approval of the attached Curriculum Proposal 17-18-22 REV #1. This proposal would add a specialization to both the psychology and sociology degree programs. This specialization will be called behavioral analytics, which will through the use of computer science training expand on the ability of these student to use advanced data manipulation and analysis. This will allow them to meet a growing need in the workforce to be able to apply behavioral science knowledge in a data heavy environment.

Dr. Christina Lavorata

Dr. Deanna Shields

Mr. Christopher Kast

Mr. Michael Waide

Ms. Laura Ransom

Ms. Cheri Gonzalez

Ms. Lori Schoonmaker



#### **MEMORANDUM**

TO:

Curriculum Committee

FROM:

Jack Kirby

DATE:

March 9, 2018

SUBJECT:

Curriculum Proposal #17-18-22

**Behavioral Sciences** 

I recommend approval of the attached Curriculum Proposal 17-18-22. This proposal would add a specialization to both the psychology and sociology degree programs. This specialization will be called behavioral analytics, which will through the use of computer science training expand on the ability of these student to use advanced data manipulation and analysis. This will allow them to meet a growing need in the workforce to be able to apply behavioral science knowledge in a data heavy environment.

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#### PREPARING CURRICULUM PROPOSALS

#### **INSTRUCTIONS**

Draft your proposal in accordance with the guidelines below and the format shown on the following pages. Should any item under the several headings not pertain to your proposal, write N/A. **Number the second and subsequent pages of your proposal.** 

Supply the preliminary information about the proposal as indicated below:

**PROPOSAL NUMBER:** Leave this space blank. A number will be assigned to the proposal by the Associate Provost.

**SCHOOL:** Enter the name of the College or School (e.g., *Liberal Arts*), Department (e.g., Language and Literature), and Program (e.g., English).

**PREPARER/CONTACT PERSON:** Enter the name of the person who prepared the proposal and his/her telephone extension number.

**COPIES OF MEMOS SENT TO AFFECTED DEPARTMENTS:** Attach these to the back of your proposal.

**LETTERS OF SUPPORT FROM DEANS OF AFFECTED DEPARTMENTS:** If the Curriculum Committee requests these letters, attach them to the back of your proposal.

**DATE SUBMITTED:** The Curriculum Committee meets on the fourth Tuesday of each month. **Proposals are due in the Office of the Associate Provost on or before the second Tuesday of the month.** 

**REVISION SUBMISSION DATE:** If changes are required to the original proposal, enter the date the proposal was resubmitted.

**IMPLEMENTATION DATE REQUESTED:** Enter the first day of the semester (or summer term) and year in which the proposed curriculum change(s) would take effect.

Proposal Number:	
School/Department/Program:	College of Liberal Art/ Behavioral Sciences
Preparer/Contact Person:	Chris Kast
Telephone Extension:	4236
Date Originally Submitted:	3/7/18
Revision (Indicate date and label it Revision #1, #2, etc.):	4-2-18 Revision #1
Implementation Date Requested:	Fall 2018
on the ability of these student to use adv	nalytics, which will through the use of computer science training expand ranced data manipulation and analysis. This will allow them to meet a e to apply behavioral science knowledge in a data heavy environment.
II. DESCRIPTION OF THE PROPOSAL. For V. If any section does not apply to your  A. Deletion of course(s) or credit(s)	
	Total hours deleted. <b>N/A</b>

C. Provision for interchangeable use of course(s) with program(s) N/A

Total hours added.

N/A

D.	Revision of course content. Include, as an appendix, a revised course description, written in complete sentences, suitable for use in the university catalog. <b>N/A</b>	)
E.	Other changes to existing courses such as changes to title, course number, and elective or required status. <b>N/A</b>	
F.	Creation of new course(s). For each new course N/A	
	<ol> <li>Designate the course number, title, units of credit, prerequisites (if any), ownership (FSU or share and specify its status as an elective or required course. If you are creating a shared course, attac memo from the Deans of the affected Schools explaining the rationale for the course being shared</li> </ol>	h a
	<ol><li>Include, as an appendix, a course description, written in complete sentences, suitable for use in the college catalog.</li></ol>	ıe
	3. Include, as an appendix, a detailed course outline consisting of at least two levels.	
	4. In order to meet the requirements as outlined in Goal One of the Strategic Plan, please include Outcome Competencies and Methods of Assessment as an appendix. Examples are available up request from the Chair of the Curriculum Committee.	or
	See appendix B	
G.	Attach an itemized summary of the present program(s) affected, if any, and of the proposed change(s	).
	Describe how this proposal affects the hours needed to complete this program. Specifically, what the net gain or loss in hours? Use the format for Current and Proposed Programs in Appendix A	is

#### III. RATIONALE FOR THE PROPOSAL.

A. Quantitative Assessment: Indicate the types of assessment data, i.e., surveys, interviews, capstone courses, projects, licensure exams, nationally-normed tests, locally developed measurements, accreditation reports, etc., that were collected and analyzed to determine that curricular changes were warranted. Quantitative data is preferred.

Shifts in the scale of data in large government and business environments has radically increased the complexity in simply preparing data for analysis. With this being the case many jobs now necessitate that those with research training also possess computer programing skills to manipulate databases or engage in data mining. This specialization will ultimately make our students more competitive for these positions by providing them this training through the college of science and technology. This in combination with the research and theoretical training they already receive will allow them to perform functions that traditionally have between split between a team of individuals. A list of general job boards can be found below, but the combination noted above would make these students especially marketable.

General Job Boards

http://www.analytictalent.datasciencecentral.com/jobs/results/keyword/data-science

https://datajobs.com/

https://www.kaggle.com/jobs

https://www.kdnuggets.com/jobs/index.html

https://icrunchdata.com/jobs/

http://www.analytictalent.datasciencecentral.com/jobs/results/keyword/data-science

B. Qualitative Assessment: Based upon the assessment data above, indicate why a curricular change is justified. Indicate the expected results of the change. Be sure to include an estimate of the increased cost, or reduction in cost of implementation. FOR EXAMPLE: Will new faculty, facilities, equipment, or library materials be required?

Since this specialization builds on preexisting capacity in both departments we do not foresee the need for new faculty or equipment as it is currently designed. Once more data on student interest is available future refinement and expansion of this is possible, which based on available resources may be accomplished through the hiring of dedicated specialized faculty.

IV. Should this proposal affect any course or program in another school, a memo must be sent to the Dean of each school impacted and a copy of the memo(s) must be included with this proposal. In addition, the Deans of the affected schools must sign below to indicate their notification of this proposal.

By signing here, you are indicating your college's/school's notification of this proposal.

College/School	Dean	Signature
College of Liberal Arts	Dr. Deanna Shields	Dearra Shields
College of Science and Technology	Dr. Donald Trisel	Don-Tris

- V. Should this proposal affect any course to be added or deleted from the general studies requirements, a memo from the chair of the General Studies Committee indicating approval of the change must be included with this proposal.
- VI. ADDITIONAL COMMENTS.

# APPENDIX A

# B.S. Degree in Psychology Current Program

Required Major Co	ourses	HRS	
PSYC 1101	Introduction to Psychology	3	
PSYC 2220	History & Systems of Psychology	3	
PSYC 2230	Social Psychology	3	
PSYC 2240	Behavioral Statistics	3	
PSYC 3300	Abnormal Psychology	3	
PSYC 3305	Research Methods in the Behavioral Sciences	4	
PSYC 3310	Experimental Psychology	3	
PSYC 3330	Developmental Psychology	3	
PSYC 4470	Intervention Techniques and Applications	3	
PSYC 3350	Biopsychology	3	
PSYC 3360 or	Cognitive Psychology or		
PSYC 3370	Theories of Learning	3	
PSYC 3390	Research Capstone	3	
PSYC 4400	Psychometrics	3	
PSYC 4410	Theories of Personality	3	
PSYC 4460	Seminar	3	
TOTAL Required M	lajor Courses		46
Major Electives			9
TOTAL HOURS FO	OR MAJOR (and minor if required)		55

Attribute 1 Critical Anal	voic	V
Attribute 1 – Critical Anal	ysis	Λ
	PSYC 3310 (Satisfied in Major)	
Attribute 2 - Quantitative	Literacy	3
	MATH 1507 or 1407 or higher in Outcome 2 (PR for Psych 2240)	
Attribute 3 – Written Communication		3
	ENGL 1101 (Institutional Requirement)	
Attribute 4 - Teamwork		X
	COMM 2200* (May be Satisfied in	
	Outcome 7)	
Attribute 5 – Information Literacy		3
	ENGL 1102 (Institutional Requirement)	

Attribute 6 – Technology Literacy	3
ANY COURSE LISTED IN Outcome 6	
Attribute 7 – Oral Communication	3_
COMM 2200 or 2201 or 2202*	
Attribute 8 - Citizenship	3
HIST 1107 or 1108 or POLI 1103*	
Attribute 9 - Ethics	3
ANY COURSE LISTED IN Outcome 9	
Attribute 10 - Health	2
ANY COURSE LISTED IN Outcome 10	
Attribute 11 - Interdisciplinary	3
ANY COURSE LISTED IN Outcome 11	
Attribute 12 - Arts	3
ANY COURSE LISTED IN Outcome 12	
Attribute 13 - Humanities	3
ANY COURSE LISTED IN Outcome 13	
Attribute 14 – Social Sciences	X
PSYC 1101 (Satisfied in Major)	
Attribute 15 - Natural Science	4
ANY COURSE LISTED IN Outcome 15	
Attribute 16 - Cultural Awareness	3
ANY COURSE LISTED IN Outcome 16	
Additional General Studies hours	X
PSYC 3390 (WIC – Satisfied in Major)	
TOTAL GENERAL STUDIES HOURS	39
TOTAL FREE ELECTIVES	26
TOTAL HOURS	120

<sup>\*</sup> Any course(s) marked with an asterisk (\*) above are recommended to complete program curriculum; however, students may select any other courses from the approved General Studies list.

Current Psychology degree will remain with the below as an alternate option

B.S. Degree in Psychology Specialization in Behavioral Analytics

Required Major Co	ourses	HRS
PSYC 1101	Introduction to Psychology	3
PSYC 2220	History & Systems of Psychology	3
PSYC 2230	Social Psychology	3
PSYC 2240	Behavioral Statistics	3
PSYC 3300	Abnormal Psychology	3
PSYC 3305	Research Methods in the Behavioral Sciences	4
PSYC 3310	Experimental Psychology	3
PSYC 3330	Developmental Psychology	3
PSYC 4470	Intervention Techniques and Applications	3
PSYC 3350	Biopsychology	3
PSYC 3360 or	Cognitive Psychology or	
PSYC 3370	Theories of Learning	3

PSYC 3390	Research Capstone	3	
PSYC 4400	Psychometrics	3	
PSYC 4410	Theories of Personality	3	
PSYC 4460	Seminar	3	
TOTAL Required	Major Courses		46
Major Electives			9
Specialization in Be	ehavioral Analytics		21
MATH 1561	Introduction to Mathematical Reasoning	3	
MATH 2562	Introduction to Discrete Mathematics	3	
COMP 1102	Principles of Programming I	3	
COMP 1108	Principles of Programming II	3	
COMP 2270	Data Structures	3	
COMP 4410	Database Management	3	
COMP 4450	Introduction to Data Mining	3	
TOTAL HOURS FO	OR MAJOR (and minor if required)		76

Attribute 1 - Critical Analys	sis	X
	PSYC 3310 (Satisfied in Major)	
Attribute 2 – Quantitative L	iteracy	3
	MATH 1530 or 1430 or higher in Outcome	
	2 (PR for Psych 2240)	
Attribute 3 – Written Comm		3
	ENGL 1101 (Institutional Requirement)	
Attribute 4 - Teamwork		X
	COMM 2200* (May be Satisfied in	
Accident to the second second	Outcome 7)	
Attribute 5 – Information Li	······································	3
Audi to O. Toolooloo Li	ENGL 1102 (Institutional Requirement)	
Attribute 6 – Technology Li		3
A((:)) (-7 O-10	ANY COURSE LISTED IN Outcome 6	
Attribute 7 – Oral Commun		3
	COMM 2200 or 2201 or 2202*	
Attribute 8 - Citizenship	LUOT 4407 - 4400 - DOLL4400*	3
Audit to O. Eddin	HIST 1107 or 1108 or POLI 1103*	
Attribute 9 - Ethics	ANN COLIDOR LIGHTED IN C	3
A(C) (2 40 11 2 40	ANY COURSE LISTED IN Outcome 9	
Attribute 10 - Health	ANY COURSE LICES IN Outcome 40	2
Augh to dd llater Period Per	ANY COURSE LISTED IN Outcome 10	
Attribute 11 - Interdisciplina		3
A44-1-4-40 A-4-	ANY COURSE LISTED IN Outcome 11	
Attribute 12 - Arts	ANY COURSE LICES IN Outcome 40	3
A44-15-4-40 II10	ANY COURSE LISTED IN Outcome 12	
Attribute 13 - Humanities	ANY COURSE LIGHTED IN C	3
A((-)) (-) (4.4 ) (-) (-) (-) (-)	ANY COURSE LISTED IN Outcome 13	
Attribute 14 – Social Science		X
	PSYC 1101 (Satisfied in Major)	

Attribute 15 - Natural Science	4
ANY COURSE LISTED IN Outcome 15	
Attribute 16 – Cultural Awareness	3
ANY COURSE LISTED IN Outcome 16	_
Additional General Studies hours	X
PSYC 3390 (WIC – Satisfied in Major)	_
	-
TOTAL GENERAL STUDIES HOURS	39
TOTAL FREE ELECTIVES	5
TOTAL HOURS	

<sup>\*</sup> Any course(s) marked with an asterisk (\*) above are recommended to complete program curriculum; however, students may select any other courses from the approved General Studies list.

B.S. Degree in Sociology Current Program

recognition integer	ourses	HRS	
SOCY 1110	Introductory Sociology	3	
SOCY 2200	Social Problems	3	
SOCY 2205	Principles of Race, Class, and Gender	3	
SOCY/PSYC			
2240	Behavioral Statistics	3	
SOCY 3301	Cultural Anthropology	3	
	Research Methods in the Behavioral	4	
SOCY 3360	Sciences		
SOCY 3370	Concept of Survey Design	3	
SOCY 3395	Sociological Theory	3	
SOCY 4480	Senior Capstone	3	
TOTAL Required	Major Courses		28
Major Electives			
			15
			15
			15
			15
Minor (required)			
Minor (required)			15 18
Minor (required)			

Required General Studies Co	purses	
Outcome 1 – Critical Analysis		3
	PHIL 2275*	
Outcome 2 – Quantitative Liter		3
	MATH 1507 or 1407 or higher in Outcome	
Outron 2 Witter Constitution	2 (PR for SOCY 2240)	
Outcome 3 – Written Communi	···-	3
	ENGL 1101 (Institutional Requirement)	
Outcome 4 - Teamwork	COMM 2200 or 2201 or 2202* (Mov. bo	3
	COMM 2200 or 2201 or 2202* (May be Satisfied in Outcome 7)	
Outcome 5 – Information Litera		3
Odicome 3 – Information Litera	ENGL 1102 (Institutional Requirement)	<u></u>
Outcome 6 – Technology Litera		3
Odicome o – recimology Litera	ANY COURSE LISTED IN Outcome 6	<u></u>
Outcome 7 – Oral Communicat		X
Odicome 7 – Oral Communical	COMM 2200 or 2201 or 2202*	
Outcome 8 - Citizenship	COMM 2200 OF 2201 OF 2202	3
Odicome 8 - Citizensmp	HIST 1107 or 1108 or POLI 1103*	3
Outcome 9 - Ethics	THIST TIOT OF TIOS OF FOLITIOS	X
Odiconie 9 - Etnics	SOCY 2200 (Satisfied in Major)	^
Outcome 10 - Health	SOCT 2200 (Satisfied in Major)	2
Odicome 10 - Health	ANY COURSE LISTED IN Outcome 10	
Outcome 11 - Interdisciplinary	ANT COURSE LISTED IN Outcome to	X
Outcome 11 - Interdisciplinary	SOCY 2200 (Satisfied in Major)	^
Outcome 12 - Arts	SOCY 2200 (Satisfied in Major)	3
Outcome 12 - Arts	ANY COURSE LISTED IN Outcome 12	ა
Outcome 13 – Humanities	ANT COURSE LISTED IN OULCOINE 12	3
Outcome 13 – Humanilles	ANV COURSE LISTED IN Outcome 12	<u></u>
Outcome 14 Social Sciences	ANY COURSE LISTED IN Outcome 13	X
Outcome 14 – Social Sciences	····	^
Outcome 45 Natural Caianas	SOCY 1110 (Satisfied in Major)	
Outcome 15 - Natural Science	ANV COURSE LISTED IN Outcome 15	4
Outcome 16 Cultural Awaren	ANY COURSE LISTED IN Outcome 15	
Outcome 16 – Cultural Awaren		X
Additional Canaral Studios have	SOCY 3301 (Satisfied in Major)	v
Additional General Studies hou		X
	SOCY 3395 (WIC – Satisfied in Major)	
TOTAL GENERAL STUDIES I	JOHES .	33
TOTAL GENERAL STUDIES I	IOUNG	33
TOTAL FREE ELECTIVES		26
TOTAL TRUE ELLOTTVES		20
TOTAL HOURS		120

<sup>\*</sup> Any course(s) marked with an asterisk (\*) above are recommended to complete program curriculum; however, students may select any other courses from the approved General Studies list.

# Current Sociology degree will remain with the below as an alternate option.

# B.S. Degree in Sociology Specialization in Behavioral Analytics

<b>Required Major Co</b>	ourses	HRS
SOCY 1110	Introductory Sociology	3
SOCY 2200	Social Problems	3
SOCY 2205	Principles of Race, Class, and Gender	3
SOCY/PSYC		
2240	Behavioral Statistics	3
SOCY 3301	Cultural Anthropology	3
SOCY 3360	Research Methods in the Behavioral Sciences	4
SOCY 3370	Concept of Survey Design	3
SOCY 3395	Sociological Theory	3
SOCY 4480	Senior Capstone	3
Major Courses Major Electives Minor (Required		
Specialization in Be	ehavioral Analytics	
MATH 1561	Introduction to Mathematical Reasoning	3
MATH 2562	Introduction to Discrete Mathematics	3
COMP 1102	Principles of Programming I	3
COMP 1108	Principles of Programming II	3
COMP 2270	Data Structures	3
COMP 4410	Database Management	3
COMP 4450	Introduction to Data Mining	3
TOTAL HOURS FO	OR MAJOR (and minor if required)	

# Required General Studies Courses

required Conoral Ordanes	7 G. 1. 00 C	
Outcome 1 – Critical Analysis	3	3
	PHIL 2275*	
Outcome 2 – Quantitative Lite	3	
	MATH 1530 or 1430 or higher in Outcome 2 (PR for SOCY 2240)	
Outcome 3 – Written Communication		3
	ENGL 1101 (Institutional Requirement)	
Outcome 4 - Teamwork	3	
	COMM 2200 or 2201 or 2202* (May be Satisfied in Outcome 7)	
Outcome 5 – Information Literacy		3
	ENGL 1102 (Institutional Requirement)	
Outcome 6 – Technology Literacy		
	ANY COURSE LISTED IN Outcome 6	

Outcome 7 – Oral Communication	X
COMM 2200 or 2201	or 2202*
Outcome 8 - Citizenship	3
HIST 1107 or 1108 o	· POLI 1103*
Outcome 9 - Ethics	X
SOCY 2200 (Satisfie	d in Major)
Outcome 10 - Health	2
ANY COURSE LISTE	D IN Outcome 10
Outcome 11 - Interdisciplinary	X
SOCY 2200 (Satisfie	d in Major)
Outcome 12 - Arts	3
ANY COURSE LISTE	D IN Outcome 12
Outcome 13 – Humanities	3
ANY COURSE LISTE	D IN Outcome 13
Outcome 14 – Social Sciences	X
SOCY 1110 (Satisfie	d in Major)
Outcome 15 - Natural Science	4
ANY COURSE LISTE	D IN Outcome 15
Outcome 16 – Cultural Awareness	X
SOCY 3301 (Satisfie	d in Major)
Additional General Studies hours	X
SOCY 3395 (WIC – S	Satisfied in Major)
TOTAL GENERAL STUDIES HOURS	33
TOTAL FREE ELECTIVES	5
TOTAL HOURS	120

<sup>\*</sup> Any course(s) marked with an asterisk (\*) above are recommended to complete program curriculum; however, students may select any other courses from the approved General Studies list.

# Appendix B Specialization Outcomes

Specialization Outcomes	Direct Assessment Measures	Satisfactory Performance Standards
Upon successful completion of this course, students will be able to	Student performance with respect to this outcome will be measured by	Satisfactory student performance on the direct assessment measure will consist of
Use appropriate models of analysis, assess the quality of input, derive insight from results, and investigate potential issues.	Course projects in research capstones courses	70% of students receiving a grade of C or better on the course projects.
Apply computing theory, languages and algorithms, as well as mathematical and statistical models, and the principles of optimization to appropriately formulate and use data analyses.	Course projects in computer programming courses.	70% of students receiving a grade of C or better on the course projects.