BOARD APPROVED
June 6, 2025
Cindy Ream
Corporate Secretary

PURDUE UNIVERSITY BOARD OF TRUSTEES EXECUTIVE SUMMARY DEGREE PROPOSAL TEMPLATE

PLEASE NOTE THAT THE FULL ACADEMIC DEGREE PROGRAM SUBMISSION DOCUMENT WILL NEED TO BE COMPLETED FOR THE INDIANA COMMISSION ON HIGHER EDUCATION (see https://www.in.gov/che/academic-affairs/academic-degree-programs/). Both this template and the Academic Degree Program Submission are submitted to the Purdue Board of Trustees. When this form is complete, please save and return to sdunk@purdue.edu with tables as separate attachment.

DATE:

TO: Board of Trustees

FROM: Dr. Chris Yeomans, Primary Contact, (765) 494-4275; cyeomans@purdue.edu
CC: Samantha Ooley, Secondary Contact, (765) 496-3495; swalker@purdue.edu

SUBJECT: Bachelor of Arts in Cognitive Science Degree Proposal

CAMPUS OFFERING DEGREE: PWL

ANTICIPATED START DATE: Fall 2025

IS THE DEGREE RESIDENTIAL, HYBRID, OR ONLINE? Residential

1. BRIEF OVERVIEW OF DEGREE/WHY IS THE DEGREE NEEDED?

The BA in Cognitive Science is needed for intellectual, strategic, and economic reasons. Intellectually, Cognitive Science has become an essential area of research since the 1980s. Purdue is the only Big 10 university without a Cognitive Science program, whereas Indiana University's program is a great success. In today's environment in which large language models are driving so much research and innovation, a program which lies at the intersection of computer science, linguistics, philosophy and psychology is crucial. Strategically, the BA in Cognitive Science advances both Purdue's strategic initiatives in Purdue Computes and One Health. The guiding thought behind the original development of Cognitive Science was the thought that the brain is a computer and so cognition could be understood and modeled by computation. This degree offers students an additional perspective on cognition and computation that complements existing programs. With respect to One Health, the experimental paradigms developed in the cognitive sciences are crucial for the accurate identification and treatment of cognitive disorders and Cognitive Science also makes important connections between animal and human cognition. Economically, the Cognitive Science degree supports both pathways into mental health professions as well as the growing needs for bioscience talent in Indiana. The biosciences and cognitive science share considerable aims—both target pathologies of the brain, from memory to movement disorders, with the goal of understanding and improving the lives of those living with these conditions. Because of the recent hiring of a group of cognitive scientists by the philosophy department, and existing strengths in the related fields, we are in the enviable position to be able to meet these needs without additional resources.

2. BRIEF EVIDENCE OF FEDERAL, STATE, AND REGIONAL LABOR MARKET NEED

Indiana is the top state for pharmaceutical exports and the second-largest exporter of life science products of US states, as well as being a top 5 state for life science jobs. There are substantial needs for workforce development in these industries from all angles, including in areas concerning cognition and neuroscience. In addition, there is an important need for mental health professionals throughout the state and particularly in the Lafayette area. As of 2024, all 92 counties in Indiana were federally designated as mental health care workforce shortage areas. Finally, US Bureau of Labor Statistics reports project substantial growth for fields in healthcare, computer occupations, and social service occupations—which are common destinations for Cognitive Science majors across the country. Cognitive science majors find work in data, medical and linguistic analysis; human-computer interaction; and human factors analysis.

3. COSTS: Tuition and fees will be standard Purdue rates for undergraduate students. Additional financial projects are found in the attached BOT Financial Tables spreadsheet.

4. LIST OF SIMILAR DEGREES IN THE PURDUE SYSTEM AND DISTINCTIVE ELEMENTS FOR THIS DEGREE

There are no Cognitive Science degrees in the Purdue system. Our BA curriculum covers foundational topics such as cognitive development, philosophy of mind, cognitive psychology, neural networks, and language acquisition. In addition to a framework provided by core coursework in philosophy and these other disciplines, it requires a focus area to add depth in one of the core disciplines. The three closest degree programs at Purdue are the BS in Brain and Behavioral Sciences (BBS), the BS in Psychological Sciences, and the BA in Philosophy. In contrast to these three degrees, the BA in Cognitive Science is interdisciplinary but focused on cognition rather than behavior. The BS in BBS is a degree in applied biology and treats behavior broadly. The BS in Psychology shares the vast majority of its required credit hours with the BS in BBS, and also treats behavior broadly without interdisciplinarity. The BA in Philosophy encourages study of the history of philosophy and breadth in the discipline, but not interdisciplinary approaches, and there is very little overlap between the degrees.

5. COMPETITIVE DEGREES - BRIEF SUMMARY

Recommended Approval:

Indiana University offers both a B.S. and a B.A. in Cognitive Science, as well as a minor and graduate level work. Except for Purdue, all of the Big 10 Universities offer either a minor, major, or graduate programs in Cognitive Science. Additionally, many of the top engineering schools which are Purdue peers offer cognitive science programs including MIT, U.C. Berkeley, Stanford, Cornell, and Carnegie Mellon. In each of these programs, the degree's interdisciplinary structure is emphasized. These programs often include breadth requirements as well as concentrations in the core areas. Our degree has a similar structure in Area D. It is common for Cognitive Science programs to be run by philosophers and/or housed in philosophy departments. Washington University in St. Louis' Philosophy-Neuroscience-Psychology (PNP) Program is housed in its Philosophy Department; Cog Sci programs at Yale, Cornell, UC Davis, UC Santa Barbara, Toronto, McGill, University of British Columbia, and York University are currently directed by philosophers.

Potal & Mugs	05/27/2025
Patrick J Wolfe, Ph.D.	Date
Provost and Executive Vice President for Academic Affairs and Diversity	•
Miller Family Professor of Statistics and Computer Science	
Approved:	
	<u>5/27/2025</u>
Mung Chiang, Ph.D.	Date
President	
Roscoe H. George Distinguished Professor of Electrical and Computer E	ngineering

Table 1
Program Financial Projection
Financial Office Table
Purdue West Lafayette Campus

BA Degree in the Cognitive Science

	Year #1	Year #1 Year #2		Year #4	Year #5
	FY 2026				
	(Fall 2025)	FY 2027	FY 2028	FY 2029	FY 2030
I. ENROLLMENT					
1. Program Credit Hours Generated (FTE * 30	for BS & FTE * 24 for masters/g	graduate)			
a. Existing Courses	750	1500	2250	3000	3000
b. New Courses	0	0	0	0	0
Total	750	1500	2250	3000	3000
2. Full-Time Equivalents (FTE)					
a. Full-Time FTEs	25	50	75	100	100
b. Part-Time FTEs	0	0	0	0	0
Total Full/Part-Time FTE	25	50	75	100	100
c. On-Campus Transfer FTEs	15	25	30	35	35
d. New-to-Campus FTEs	10	25	45	65	65
Total On/New-to-Campus FTE	25	50	75	100	100
3. Program Majors - Headcount					
a. Full-Time Students	25	50	75	100	100
b. Part-Time Students	0	0	0	0	0
Total Full/Part-Time HC	25	50	75	100	100
c. In-State	7	15	23	30	30
d. Out-of-State	18	35	52	70	70
Total In/Out of State HC	25	50	75	100	100

Notes

For both undergraduate and graduate degree enrollment projections, please carefully consider competitive degree enrollments and how the Purdue program will be marketed in the calculation of enrollment and degree completion projections.

[^] Enter footnotes in the last section of this table for to provide additional details (required for 'other' categories) and projection and/or calculation logic.

Table 1
Program Financial Projection
Financial Office Table
Purdue West Lafayette Campus

BA Degree in the Cognitive Science

	ear #1 5(Fall 2025)	ır #2 2027	_	ar #3 2028		ar #4 2029	Year #5 FY 2030
II. INCREMENTAL REVENUE							
1. Projected # of New Students (1)	10	25		45		65	65
2. General Tuition & Fees (2)							
a. General Service	\$ 9,718	\$ 9,718	\$	9,718	\$	9,718	\$ 9,718
b. Technology Fee	\$ -	\$ -	\$	-	\$	-	\$ -
c. Repair & Rehabilitation Fee	\$ -	\$ -	\$	-	\$	-	\$ -
d. Student Fitness & Wellness Fee	\$ 234	\$ 234	\$	234	\$	234	\$ 234
e. Student Activity Fee	\$ 40	\$ 40	\$	40	\$	40	\$ 40
Total General Service T&F	\$ 9,992	\$ 9,992	\$	9,992	\$	9,992	\$ 9,992
2. Additional Fees - <i>if applicable</i> (3)							
a. Differential Fees	-	-		-		-	-
b. Course Fees	-	-		-		-	-
c. Other Fees	-	-		-		-	-
Total Additional Fees	\$ -	\$ -	\$	-	\$	-	\$ -
Total Incremental Revenue	\$ 235,294	\$ 578,835	\$ 1	,036,262	\$ 1	,504,971	\$ 1,504,971

Notes

- (1) New Students represents the anticipated number of *new* students to campus; transfers or existing students are *not* to be included. The Total is set equal to the 'New-to-Campus FTEs' completed in the Enrollment section (I2d).
- (2) T&F must match approved Bursar rates (refer to Bursar website). The calculation should be based on the *Full-Time/Resident* Student T&F (Undergraduate programs only). If the new degree program is primarily Part-Time students, then the T&F needs to be adjusted appropriately for this type of expected enrollment.
- (3) If additional fees are applicable, then each fee must be individually listed above and match approved Bursar rates (refer to Bursar website).

Bursar T&F Website: https://www.purdue.edu/bursar/tuition/index.html

[^] Enter footnotes in the last section of this table for to provide additional details (required for 'other' categories) and projection and/or calculation logic.

Table 1
Program Financial Projection
Financial Office Table
Purdue West Lafayette Campus

BA Degree in the Cognitive Science

	FY	ir #1 Fall 2025)		Year #2 FY 2027			Year #3 FY 2028			Year #4 FY 2029			Year #5 FY 2030	
III. EXPENDITURES														
1. Salary and Wages	FTE	Cost	FTE		Cost	FTE		Cost	FTE		Cost	FTE		Cost
a. Faculty	1.00	118,500	1.00		122,055	1.00		125,717	1.00		129,488	1.00		133,373
b. Limited Term Lecturers	0.00	-	0.00		-	0.00		-	0.00		-	0.00		-
c. Graduate Students	0.00	-	0.00			0.00			0.00			0.00		
d. Other (Post Doc/Staff)	1.00	62,532	1.00		64,408	0.00		66,340	0.00		68,330	0.00		70,380
Total S&W	2.00	\$ 181,032	2.00	\$	186,463	1.00	\$	192,057	1.00	\$	197,819	1.00	\$	203,753
2. Fringes and Fee Remissions														
a. Fringe Benefits		51,594			53,142			54,736			56,378			58,070
b. Fee Remissions											-			_
Total FB & FR		\$ 51,594		\$	53,142		\$	54,736		\$	56,378		\$	58,070
3. Supplies and Expenses														
 a. General Supplies & Expenses 		3,000			3,000			3,000			3,000			3,000
b. Minor Equipment		-			-			-			-			-
c. Recruiting & Marketing		10,000			10,000			10,000			10,000			10,000
d. Travel & Entertainment		-			-			-			-			-
e. Other (Library, subscriptions, IT)		 						-						
Total Supplies and Expense		\$ 13,000		\$	13,000		\$	13,000		\$	13,000		\$	13,000
4. Capital														
a. Capitalized Equipment														
b. Repair & Replacement		 												
Total Equipment		\$ -		\$	-		\$	-		\$	-		\$	-
Takal Funandikuna		 245 626			252.665			250 702			267.107			274 022
Total Expenditures		\$ 245,626		\$	252,605		\$	259,793		\$	267,197		\$	274,823
Projected Program Surplus/(Deficit)*		\$ (10,332)		\$	326,230		\$	776,469		\$	1,237,774		\$	1,230,148
		 (20,002)						,.33			_,,			_,,

^{*} For the CHE proposal, only identify the nature of the support. It is not necessary to note dollars in the report; however, it should be stated that there is sufficient revenue to cover expenses. Projected surplus/deficit is an aid to identify potential new University revenue, anticipated program costs, and degree substantiality. This does not represent any type of funding request.

[^] Enter footnotes in the last section of this table for to provide additional details (required for 'other' categories) and projection and/or calculation logic.

Table 1 Program Financial Projection Financial Office Table

Purdue West Lafayette Campus BA Degree in the Cognitive Science

FOOTNOTES	
I. Enrollment Details	
Program Credit Hours Generated	This is a standard 120 credit hour program.
2. Full-Time Equivalents (FTE)	We anticipate 25 new students in the program each academic year based on our rate of growth for the A.I. major in our department,
3. Program Majors - Headcount	This will increase annually by a projection of 25 new students a year, and would likely even out at 100 by year five
II. Incremental Revenue Details	This number takes into consideration the popularity of degree plus and that some of our major headcount will include students who
Projected # of New Students	This number takes into consideration the popularity of degree plus and that some of our major headcount will include students who a
2. General Tuition & Fees	This is calculated at current tuition rates for residential and non-residential students given that approximately 1/3 of our current PHIL
3. Additional Fees - if applicable	There are no additional fees for this program.
III. Expenditure Details 1. Salary and Wages	This includes 1 FTE for faculty given that the head count will not exceed 100 students which would not demand additional faculty exp
Fringes and Fee Remissions	This is based on the most common calculation for benefits, since no graduate students are expected to be teaching there is no reason
2. Tringes and Lee Neillissions	This is based on the most common calculation for benefits, since no graduate students are expected to be teaching there is no reason

There are no additional capital costs anticipated

3. Supplies and Expenses

4. Capital

These include a base cost for supplies and approximately \$10,000 a year for marketing and recruitment which we based off current expressions are supplied to the contract of t

Table 2 Program Revenue and Expenditure Summary Board of Trustees Table

Purdue West Lafayette Campus BA Degree in the Cognitive Science

	Year #1 FY 2026(Fall 2025)		Year #2 FY 2027	Year #3 FY 2028			Year #4 FY 2029	Year #5 FY 2030		
Total Incremental Revenue*	\$	235,294	\$ 578,835	\$	1,036,262	\$	1,504,971	\$	1,504,971	
Total Expenditures	\$	245,626	\$ 252,605	\$	259,793	\$	267,197	\$	274,823	
Projected Program Surplus/(Deficit)**	\$	(10,332)	\$ 326,230	\$	776,469	\$	1,237,774	\$	1,230,148	

Additional Departmental Footnotes:

^{*}Based on the anticipated number of **new** students to campus; transfers or existing students are not included. Projected incremental revenue is based on the current **full-time** tuition and fees approved by the Bursar.

^{**}Projected surplus/deficit is an aid to identify potential new University revenue, anticipated program costs, and degree substantiality. This does not represent any type of funding request.

Table 3 Projected Headcount and FTE Enrollment and Degrees Conferred Board of Trustees & ICHE Table

Purdue West Lafayette Campus BA Degree in the Cognitive Science

	Year #1 FY <u>2026(Fall 202</u> 5)	Year # 2 FY 2027	Year # 3 FY 2028	Year # 4 FY 2029	Year # 5 FY 2030
Enrollment Projections (Headcount)	25	50	75	100	100
Enrollment Projections (FTE)	25	50	75	100	100
Degree Completions Projection	0	25	25	50	50