KANSAS BOARD OF REGENTS
ACADEMIC AFFAIRS STANDING COMMITTEE

VIRTUAL MEETING AGENDA
Tuesday, May 3, 2022
9:00 – 10:30 a.m.

The Board Academic Affairs Standing Committee (BAASC) will meet virtually via Zoom. You can listen to the meeting at the Board offices, located at 1000 SW Jackson, Suite 520, Topeka, Kansas, 66612. Meeting information will be sent to participants via email, or you may contact arobinson@ksbor.org.

I.   Call to Order   Regent Kiblinger, Chair
    A.   Roll Call and Introductions
    B.   Approve minutes from April 20, 2022   p. 3

II.   Other Matters
    A.   rpk GROUP Update   Rick Staisloff & Katie Hagan

III. Consent Items
    A.   Doctorate in Advanced Social Work Practice – KU   Barbara Bichelmeyer   p. 5
    B.   MS in Communication Sciences & Disorders – K-State   Chuck Taber   p. 20
    C.   MS in Integrated Systems Design & Dynamics – K-State Chuck Taber   p. 27
    D.   BS in Entomology – K-State   Chuck Taber   p. 38

IV.   Suggested Agenda Items for May 18th Meeting
    A.   New Program 3-Year Progress Reports
    B.   Credit for Prior Learning (CPL) Report

V.   Adjournment

BOARD ACADEMIC AFFAIRS STANDING COMMITTEE

Four Regents serve on the Board Academic Affairs Standing Committee (BAASC), established in 2002. The Regents are appointed annually by the Chair and approved by the Board. BAASC meets virtually approximately two weeks prior to each Board meeting. The Committee also meets the morning of the first day of the monthly Board meeting. Membership includes:

Shelly Kiblinger, Chair

Jon Rolph

Allen Schmidt

Wint Winter

Board Academic Affairs Standing Committee
AY 2022 Meeting Schedule

BAASC Academic Year 2021- 2022 Meeting Dates			
Meeting Dates	**Location**	**Time**	**Agenda Materials Due**
August 31, 2021	Virtual Meeting	9:00 a.m.	August 10, 2021
September 15, 2021	Hybrid Meeting	1:30 p.m.	August 25, 2021
	*No Meetings in October		
November 2, 2021	Virtual Meeting	9:00 a.m.	October 12, 2021
November 17, 2021	Hybrid Meeting	10:30 a.m.	October 27, 2021
November 29, 2021	Virtual Meeting	9:00 a.m.	November 9, 2021
December 15, 2021	Hybrid Meeting	11:00 a.m.	November 24, 2021
January 4, 2022	Virtual Meeting	9:00 a.m.	December 14, 2021
January 19, 2022	Virtual (Topeka option available)	10:30 a.m.	December 29, 2021
February 1, 2022	Virtual Meeting	9:00 a.m.	January 11, 2022
February 16, 2022	Topeka (Virtual option available)	10:30 a.m.	January 26, 2022
March 1, 2022	Virtual Meeting	9:00 a.m.	February 8, 2022
March 16, 2022	Topeka (Virtual option available)	11:00 a.m.	February 23, 2022
April 5, 2022	Virtual Meeting	9:00 a.m.	March 15, 2022
April 20, 2022	FHSU (Virtual option available)	11:00 a.m.	March 30, 2022
May 3, 2022	Virtual Meeting	9:00 a.m.	April 12, 2022
May 18, 2022	Topeka	11:00 a.m.	April 27, 2022
May 26, 2022 *Originally May 31st	Virtual Meeting	9:00 a.m.	May 10, 2022
June 15, 2022	Topeka	11:00 a.m.	May 25, 2022

*Please note virtual meeting times have changed to 9 a.m., and Board day meetings have changed to 11 a.m. unless otherwise noted.

Board Academic Affairs Standing Committee
MINUTES

Wednesday, April 20, 2022

The April 20, 2022, meeting of the Board Academic Affairs Standing Committee (BAASC) of the Kansas Board of Regents was called to order by Regent Kiblinger at 11:05 a.m. The meeting was held at FHSU, with a virtual option through Zoom.

In Attendance:

Members:	Regent Kiblinger	Regent Winter	Regent Schmidt
	Regent Rolph		

Staff:	Daniel Archer	Amy Robinson	Sam Christy-Dangermond
	Tara Lebar	Karla Wiscombe	Marti Leisinger
	Lisa Beck	Judd McCormack	April Henry
	Travis White	Scott Smathers	

Others:	Adam Borth, Fort Scott CC	Aron Potter, Coffeyville CC	Brenda Koerner, ESU
	Brent Thomas, K-State	Chuck Taber, K-State	Cindy Hoss, Hutchinson CC
	Elaine Simmons, Barton CC	Gary Wyatt, ESU	Howard Smith, PSU
	Janet Stramel, FHSU	Jason Sharp, Labette CC	Jennifer Roberts, KU
	JoLanna Kord, ESU	Jean Redeker, KU	Jill Arensdorf, FHSU
	Kim Krull, Butler CC	Linnea GlenMaye, WSU	Lisa Blair, NWKTC
	Michelle Schoon, Cowley CC	Mickey McCloud, JCCC	Monette DePew, Pratt CC
	Remy Lequesne, KU	Robert Klein, KUMC	Shirley Lefever, WSU
	Tanya Gonzalez, K-State	Tom Nevill, Butler CC	

Roll call was taken for members and presenters.

Approval of Minutes
Regent Rolph moved to approve April 5, 2022, meeting minutes, and Regent Schmidt seconded the motion. With no corrections, the motion passed.

2021 Apply Kansas Annual Report
Tara Lebar provided the update. The Apply Kansas program occurs each fall and is a statewide application completion event to increase the number of students who apply to college in their senior year of high school. While the campaign is for every high school senior, there is also a focus on supporting students of color, low-income, first-generation, and other students who may have not otherwise applied to college due to barriers. The full report is available at https://www.kansasregents.org/students/apply-kansas. Tara highlighted the following data:

- School participation has increased, with 159 schools participating and 126 schools reporting data
- 7,818 high school seniors participated, sending over 11,000 applications out total, with 6,303 applications going to Kansas public institutions
- 73 of the participating schools have 40% or more economically disadvantaged students
- While site participation increased slightly, student participation and application submission grew significantly

Tara noted a new program component was created this year called the "All-Star Program." Any high school that commits to holding three college planning events within the same academic year will receive all-star status. College planning events include an Apply Kansas Application event, a FAFSA completion event, and a college

signing day celebration. The first group of All Star High Schools will be announced and recognized at the June 15, 2022, Board meeting. Overall, Tara is pleased with the increased engagement with this year's campaign and will continue to look for ways to include more high schools across all areas of the state.

Other Matters
- Regent Kiblinger provided an update from the Advantage KS Coordinating Council (AKCC). The council has not met recently. The Governor's budget recommendation to fund a director position within the Kansas Department of Commerce may be approved soon.
- Regent Schmidt provided a Direct Support Professionals (DSP) update. The DSP Pathways, a Career of Caring, is the high school program that WSU has developed. WSU is offering full scholarships for any high school student who enrolls in badges for this program.

Adjournment
The next BAASC meeting is scheduled for May 3, 2022, at 9:00 a.m.

Regent Winter moved to adjourn the meeting, and Regent Rolph seconded. With no further discussion, the meeting adjourned at 11:47 a.m.

Program Approval

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. The University of Kansas has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process. The Review Team's final report for this doctoral program proposal has been submitted and included no recommendations necessitating a response from the University of Kansas. Board staff concurs with the Council of Presidents and the Council of Chief Academic Officers in recommending approval.

May 3, 2022

I. General Information

A. Institution   University of Kansas

B. Program Identification
Degree Level: Doctoral Program
Program Title: Doctorate in Advanced Social Work Practice
Degree to be Offered: Doctorate in Advanced Social Work Practice (DSW)
Responsible Department or Unit: School of Social Welfare
CIP Code: 44.0701
Modality: Online
Proposed Implementation Date: Fall 2023
Total Number of Semester Credit Hours for the Degree: 42

II. Clinical Sites: Does this program require the use of Clinical Sites?   No

III. Justification

Doctorate degree programs in advanced social work practice (i.e., the DSW) "educate master's-level social work practitioners who are graduates of CSWE[1]-accredited programs as doctoral level practitioner-scholars who will develop, translate, and advance social work practice knowledge; engage in systematic inquiry; and apply and disseminate research-informed knowledge, values, ethics, and skills in social work through practice, professional leadership, and teaching" (CSWE, 2020; p. 1). As such, the provision of a DSW program aligns with and would further advance the mission of the University of Kansas, which is "to lift students and society by educating leaders, building healthy communities and making discoveries that change the world."

The DSW is a practice doctorate in social work, including practice at the leadership or management level. It differs from a PhD in social work/social welfare in that a PhD is focused more on developing scholars and researchers. The DSW will complement, not supplant, our PhD program. The two doctoral programs will have distinct foci (i.e., managerial/leadership versus academic/scholarship) and serve students with differing career goals and educational needs. By providing educational experiences that meet the needs of a fuller range of learners seeking doctoral education in social work, we will advance our School's mission of "educating students to practice with integrity and competence; advancing the science and knowledge base of social work through

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[1] KU's Social Welfare program is accredited by the Council on Social Welfare Education (CWSE).

scholarship and research; and participating in community-engaged service" and increase student credit hours within the School.

While the social work education accrediting body (CSWE) allows for those with a PhD or a DSW to teach at baccalaureate, masters and doctorate levels as faculty within academic settings, the recent growth of DSW programs is due in part to allied professions moving to terminal practice degrees at the doctorate level (e.g., PharmD, ND, PsyD) and the implicit disadvantage to a terminal practice degree at the master's level (i.e., a MSW) when working with peers from other disciplines holding doctorates (Edwards, Task Force on the DSW Degree Convened by the Social Work Leadership Forum, 2011). In this sense, the DSW attempts to overcome this disadvantage among social work professionals.

The DSW program proposed here focuses on creating a collaborative learning community that fosters scholars who are 1) leaders in anti-oppressive social work in both agency and community contexts, 2) experts in translational and implementation science, and 3) world class teachers and mentors. An emphasis on Diversity, Equity and Inclusion provides context for the classes and serves as a central component of course content. The program is centered on developing leadership and administrative skills, while simultaneously preparing graduates capable of engaging with communities and translating the research base of the profession in order to help agencies to understand and implement the best practices found in the social work and social science literature. Finally, recognizing that many students pursuing a DSW wish to teach, a significant percentage of our courses are devoted to the theory and practice of teaching, enabling graduates to enter clinical faculty roles prepared to conduct their own classes, contribute to curricular development, and serve as skilled mentors and advisors to students

Accreditation Request
As soon as we have received appropriate university and KBOR approvals, we will begin the process of advising CSWE we wish to apply for candidacy as an accredited DSW program. Per Chapter II, section A.7 of the KBOR Policy Manual, Board approval must be obtained and granted prior to beginning the accreditation process. This proposal serves a formal request by the School to seek accreditation through CSWE of the proposed DSW Program. Costs associated with accreditation are included in Section IX.

IV. Program Demand: Select one or both of the following to address student demand:

A. Survey of Student Interest

Number of surveys administered: ………………	5300 email inquiries
Number of completed surveys returned: ……….	496
Percentage of students interested in program: …	76% very or somewhat interested

The KU School of Social Welfare attempted to confirm a strong interest among current macro[2] practitioners to obtain a DSW degree for either teaching or advanced practice purposes. To assess interest in the DSW, emails were sent to about 5300 licensed MSWs in Kansas, which included all licensed social workers in Kansas in January 2019. (Attempts to obtain emails from the National Association of Social Workers (NASW) and several other states were unsuccessful.) Over three-quarters of respondents (76%) indicated that they were either "very" or "somewhat" interested in pursuing a macro-oriented DSW with the University of Kansas School of Social Welfare (39% and 37% respectively). Roughly two-thirds of the respondents indicated a dual interest – both

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[2] The term "macro" refers to program and organizational development, policy analysis and advocacy, and leadership and management. Macro practice is often contrasted with "micro" practice; the latter which focuses on supporting clients directly through various therapeutic and counseling modalities.

teaching and practice. In terms of program content, respondents identified social justice advocacy most frequently (33%), followed by community organization (23%), diversity (18%), and policy analysis (19%). Thus, the results indicated a strong regional interest in a DSW program, and our assessment of national program models indicates that there is a need for, and strong pool of candidates interested in, macro practice and teaching.

B. Market Analysis

A review of current DSW programs was conducted by Dr. Chris Petr in 2018 which indicated two significant gaps in current DSW programs: 1) lack of attention to teaching, despite this being the most common arena for employment of DSWs and 2) lack of programming focused on macro practice topics (i.e., program and organizational development, policy analysis and advocacy, leadership and management), which were among the most frequently cited areas of hiring need by National Association of Deans and Directors of Schools of Social Work (NADD) members and Association of Baccalaureate Social Work Program Directors (BPD) . In addition, our learning around development of engaging online learning content, which accompanied the Coronavirus pandemic, and a desire to reach students nationally and internationally have motivated our decision to place this program in an accessible online platform. Thus, a synchronous (real time) online DSW program at the University of Kansas School of Social Welfare (KUSSW) focused on preparing students to teach macro content in areas such as social and economic justice, community organization, and/or policy analysis could find a broad market.

Many students enroll in advanced clinical programs to further their skills and status in the workplace; however, initial conversations with key informants indicate that this may not be true for advanced macro students—that is, there may not be a comparable need among practicing macro social workers for advanced skills and practice, but there may well be a desire to teach in this area. Thus, our dual focus on teaching and macro practice would appeal to current clinicians desiring to increase macro skills, and current macro practitioners wishing to gain skills in teaching, mentoring and curricular development.

According to the Task Force on the DSW Degree Convened by the Social Work Leadership Forum (Edwards, et al., 2011), "as the demand grows for experts with advanced practice skills, social work would be well-served to have a clear presence of doctoral level practitioners. …Their training will uniquely position them as active participants in the dissemination of knowledge about those advanced practice competencies. Additionally, academic institutions have indicated a growing need for faculty holding a terminal degree in the profession who trained as advanced practitioners and come into academe with a strong practice background" (pp. 7-8). A recent survey representative of all social work graduates in 2018 (Council on Social Work Accreditation, 2019), indicated that two of five MSWs planning a higher social work degree (39.3%) intended to seek a DSW degree.

Comparative/Locational Advantage
While the proposed program would be unique within the state of Kansas, DSW programs are beginning to emerge around the country, and there are currently 18 and several more in progress (DSW Program Summaries; Matejkowski, 2020; available upon request). This is an emerging trend in social work education, and we anticipate additional programs will be developed. At present, however, no state that is contiguous with Kansas has a DSW program, and many of the online programs are located within private and for-profit institutions. Our relatively inexpensive tuition (please see Section X - Expenditures and Funding Sources Explanations, below), coupled with our strong national reputation and faculty with expertise in leadership and pedagogy, gives us a strong competitive advantage in recruiting students.

V. Projected Enrollment for the Initial Three Years of the Program

Year	Headcount Per Year		Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	12	0	234	0
Year 2	27	0	562.5	0
Year 3	33	0	688.5	0

VI. Employment

DSW graduates are expert practitioner-scholars who: teach, supervise and mentor; assume leadership roles in social work practice settings; and generate and disseminate social work practice knowledge. In the past, having a Master of Social Work (MSW) degree would make one's resume stand out and would open the door to more advanced positions in Social Work settings. With the MSW having become the current standard, the DSW is being sought by employers as an indicator of preparedness for career advancement in agencies, government, and higher education.

According to the Council on Social Work Accreditation's 2018 of survey of social work education programs in the U.S. (CSWE, 2019), DSW graduates are primarily going into nonacademic administrative positions (22.9% of graduates) and private clinical practice (17.7%); however, tenure-track faculty positions at CSWE-accredited programs (15.6%) and nontenure-track faculty positions at CSWE-accredited programs (12.5%) are also first destinations. These are growth employment areas in the U.S.

According to the Bureau of Labor Statistics, overall employment of social workers is projected to grow 11 percent from 2018 to 2028, much faster than the average for all occupations (BLS, 2020a). Employment of social workers in health care specifically is projected to grow 17 percent from 2018 to 2028 (BLS, 2020a) and employment in mental health and substance abuse is projected to grow 18 percent during this same time period (BLS, 2020a). The DSW degree will offer a competitive advantage for those who wish to move into administrative positions within these settings. Mean salaries of exemplary employment positions are: Medical and health services managers (Mean annual wage = $115,160; BLS, 2020b), Social advocacy organization executives (mean annual wage = $114, 040; BLS, 2020c), Government agency Managers (mean annual wage = $103,000; BLS, 2020d). Additionally, employment (both part-time and full-time) of postsecondary teachers is projected to grow 11 percent from 2018 to 2028, also much faster than the average for all occupations. The median pay for social work teachers in postsecondary settings in 2019 was $72,070 (BLS, 2020e).

Thus, in terms of future growth, the job prospects of DSW graduates are more promising than many professions. The salaries expected of DSW graduates are highly competitive and higher than what can be obtained with an MSW. Finally, the DSW is designed to be flexible enough to complete while employed so students do not have to forego a salary to complete the program.

VII. Admission and Curriculum

A. Admission Criteria

Candidates complete an application, and provide a resume, a personal statement (prompted by specific questions), a writing sample, three letters of reference from former instructors or colleagues positioned to comment on the candidates' ability to succeed in a DSW program, and undergraduate and graduate transcripts. An undergraduate GPA of 3.2 or above and an MSW GPA of 3.5 and above are on a 4.0 scale are preferred. According to CSWE accreditation standards, the criteria for admission to the program must include an earned

master's degree in social work from a CSWE-accredited program and a minimum of three years of practice experience beyond the master's degree in social work. Social work licensure would be a preferred qualification but will not be required. International candidates would need to provide evidence of English language proficiency through the TOEFL exam or the Applied English Center. The program would seek candidates who evidence strong oral and written communication skills, a commitment to diversity, equity and inclusion, leadership potential, and an interest in expanding their knowledge of leadership, pedagogy and the implementation of evidence-based approaches in practice settings. Initially, students may enter the program only as full-time. However, this requirement may change following assessment of demand for part-time enrollment and instructional resources to support the schedules of part-time students.

B. Curriculum

The program consists of 42 credit hours. This is comparable to DSW programs housed within research-intensive (R1) universities (average = 46.5) and below other universities that are members of the Association of American Universities (AAU; average = 48.9) as well as existing DSW programs in general (average = 49.4). Appendix A categorizes, based upon content area, descriptions of the courses that are listed below.

Year 1: Fall   **SCH = Semester Credit Hours**

Course #	Course Name	SCH….
TBD	Introduction to Advanced Social Work Practice	3
TBD	Leadership & Management- Evidence-based Practice in Leadership and Management	3
TBD	Research & Evaluation for Building Evidence, Assessing Outcomes and Promoting Equity	3

Year 1: Spring

Course #	Course Name	SCH….
TBD	Funding Human Services: Financial Management and Budgeting	3
TBD	Assessing & Using Evidence to Design and Improve Interventions in Social Work	3
TBD	Educational Theory & Pedagogy	3

Year 1: Summer

Course #	Course Name	SCH….
TBD	Capstone Seminar 1	1.5

Year 2: Fall

Course #	Course Name	SCH….
TBD	Program Development & Design	3
TBD	Curriculum Design & Development	3
TBD	Understanding Translational and Implementation Science	3

Year 2: Winter Inter-Session

Course #	Course Name	SCH….
TBD	Capstone Seminar 2	3

Year 2: Spring

Course #	Course Name	SCH….
TBD	Community Engagement & Community Advocacy	3
TBD	Grant writing	1.5

TBD	Social Momentum Building & Communication Strategies	1.5
TBD	Advising, Mentoring, & Supervision	3

Year 2: Summer

Course #	Course Name	SCH….
TBD	Capstone 3-Defense of Portfolio	1.5

Total Number of Semester Credit Hours …………………………………………………… **42**

VIII. Core Faculty

Note: *Next to Faculty Name Denotes Director of the Program, if applicable
FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
*Ed Scanlon	Assoc Professor	PhD	Y	Social Welfare Policy & Programs	1.0

Number of graduate assistants assigned to this program …………………………………………. **0**

IX. Expenditure and Funding Sources *(List amounts in dollars. Provide explanations as necessary.)*

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty (*Program Director*)	80,000	80,000	80,000
Administrators *(other than instruction time)*	0	0	0
Graduate Assistants	0	0	0
Support Staff for Administration (*e.g., secretarial*)	0	0	0
Fringe Benefits *(total for all groups)*	27,200	27,200	27,200
Other Personnel Costs	0	0	0
Total Existing Personnel Costs – Reassigned or Existing	107,200	107,200	107,200
Personnel – New Positions			
Faculty (*Lecturing Staff*)	0	32,000	32,000
Faculty (T/TT Faculty, *Capstone Coord/Clinical Faculty*) *Year1 = 1.0 FTE T/TT Faculty and 1.0 FTE Capstone Coord/Clinical Faculty* *Year 2 = 2.0 FTE T/TT Faculty and 1.0 FTE Capstone Coord/Clinical Faculty*	160,000	240,000	240,000
Success Coach & Call Center Staff	86,000	86,000	86,000
Graduate Assistants	0	0	0
Support Staff for Administration (*e.g., secretarial*)	0	0	0

Fringe Benefits *(total for all groups)*	83,640	114,040	114,040
Other Personnel Costs	0	0	0
Total Existing Personnel Costs – New Positions	329,640	472,040	472,040
Start-up Costs - One-Time Expenses			
Library/learning resources	0	0	0
Equipment/Technology	40,000	8,000	8,000
Physical Facilities: Construction or Renovation	0	0	0
Other (*accreditation review*)	14,200	4,200	21,700
Total Start-up Costs	54,200	12,200	29,700
Operating Costs – Recurring Expenses			
Supplies/Expenses	500	700	700
Equipment/Technology/IT Support	18,000	12,000	12,000
Travel/Professional Development	6,000	8,000	8,000
Other (*Recruit, Marketing, Orientations*)	30,000	20,000	10,000
Total Operating Costs	54,500	40,700	30,700
GRAND TOTAL COSTS	545,540	632,140	639,640

B. FUNDING SOURCES *(projected as appropriate)*	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds		234,000	562,500	688,500
Student Fees		25,800	64,050	78,450
Other Sources		0	0	0
GRAND TOTAL FUNDING		259,800	626,550	766,950
C. Projected Surplus/Deficit (+/-) (Grand Total Funding *minus* Grand Total Costs)		-285,740	-5,590	127,310

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions
Program Director. One existing tenured faculty member will be assigned to direct this program at a rate of 1.0 FTE. This faculty member will oversee the program accreditation, design, and delivery (.5 FTE) and teach 1/1, conduct research and provide service (.5 FTE).

Personnel – New Positions
- A Capstone Coordinator/Clinical Faculty 1.0 FTE will be hired to manage the content for Capstone coursework to be divided .5 FTE capstone/.5 FTE teaching during the first year and expanded during the second fiscal year to 1.0 FTE capstone to accommodate additional capstones that occur during the second year of the curriculum.
- T/TT Faculty 1.0 FTE will be hired and designated to teach in the DSW program during the first year and a second T/TT Faculty 1.0 FTE will be hired and designated to teach in the DSW program during the second year to accommodate increased student enrollment.
- Lecturing staff will be added to assist with teaching at $6,000/course. Will begin in year 2.
- Success Coach. Will provide "enroll to graduation" support.
- Call Center Staff. Will recruit and provide "hello to enroll" support.

Start-up Costs – One-Time Expenses
Annual membership dues to our accrediting body (CSWE) are $4200 which are included in Years 1-3. Accreditation costs include a $10,000 Letter of Intent and Candidacy Eligibility Fee in Year 1 for the DSW. In Year 3, when the DSW program undergoes accreditation review by CSWE, accreditation expenses will total $17,500. To support a fully online program we will need equipment/technology for online teaching.

Operating Costs – Recurring Expenses
IT and instructional design (startup and maintenance) for the programming will be critical throughout. Recruiting and marketing will be expanded to promote the new program. Ongoing training and development to keep faculty/instructors abreast of innovations in online learning are also budgeted.

B. Revenue: Funding Sources & C. Projected Surplus/Deficit
Student tuition and fees would fund this program. In the first year, there would only be one cohort of students so the net revenue that year is smaller than subsequent years when there will be two cohorts in the program each year. Students will also pay a DSW course differential fee of $100 per credit hour ($4,200 per graduate) and a $200 capstone fee when enrolling for each of the three capstone courses ($600 per graduate). Once two cohorts are established in the program, the program costs are covered by student enrollment.

Tuition for the online program is proposed at $1,000 per student credit hour. We reviewed the current 18 existing DSW programs' per credit/unit and total program tuition costs. There was one "outlier" program (University of Alabama) that had tuition costs less than half the average of the remaining programs. The KU DSW program cost is competitive with existing DSW programs, and considerably lower than DSW programs housed within research-intensive (R1) universities and within universities that are members of the Association of American Universities (AAU). Total program costs tended to balloon with programs that required intensive residential summer sessions as a component of their DSW program. The program proposed here eschews these residential costs by providing instruction completely online. Costs are summarized in the following table and do not include any fees charged by institutions.

	Average tuition cost per unit/credit/hour ($)	Average tuition cost for entire program ($)
18 Existing DSW Programs	854.70	50495.80
DSW Programs w/o Alabama	894.20	52602.10
DSW programs within AAU universities	1156.00	68197.20
DSW Programs within R1universities	915.75	53333.67
DSW Programs within R1 w/o Alabama	1014.90	57637.88
KU DSW Program	1000.00	42000.00

Students enroll in 19.5 credit hours their first year and 22.5 credit hours per their second year. Year one will include one cohort of 12 students, garnering $234,000 in tuition revenue that can be applied to support programming. In subsequent years, there will be two cohorts going through the program each calendar year.

Projected enrollments:
Year one: Cohort 1 – 12 students ($259,800 in revenue)
Year two: Cohort 1 – 12 students / Cohort 2 – 15 students ($626,550 in revenue)
Year three: Cohort 2 – 15 students / Cohort 3 – 18 students ($766,950 in revenue)

XI. References

Bureau of Labor Statistics (2020a). Social workers. Job outlook. https://www.bls.gov/ooh/community-and-social-service/social-workers.htm#tab-6

Bureau of Labor Statistics (2020b). Occupational employment and wages, May 2019. 11-9111 Medical and health services managers. https://www.bls.gov/oes/current/oes119111.htm

Bureau of Labor Statistics (2020c). May 2019 national industry-specific occupational employment and wage estimates. NAICS 813300 - Social advocacy organizations. https://www.bls.gov/oes/current/naics4_813300.htm#11-0000

Bureau of Labor Statistics (2020d). May 2019 national industry-specific occupational employment and wage estimates. NAICS 999000 - Federal, State, and Local government, excluding state and local schools and hospitals and the U.S. Postal Service (OES Designation). https://www.bls.gov/oes/current/naics3_999000.htm#11-0000

Bureau of Labor Statistics (2020e). Postsecondary teachers. Pay. https://www.bls.gov/ooh/education-training-and-library/postsecondary-teachers.htm#tab-5

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Council on Social Work Education (2020). Accreditation standards for professional practice doctoral programs in social work. https://www.cswe.org/Accreditation/Information/Feedback-for-Practice-Doctorate-Program/Accreditation-Standards-for-Professional-Pract-(1).aspx

Edwards, R.L., Rittner, B., & Holmes, J. (2011). The Doctorate in Social Work (DSW) degree: Emergence of a new practice doctorate. Report of the Task Force on the DSW Degree Convened by the Social Work. https://www.cswe.org/CMSPages/GetFile.aspx?guid=547ebf4d-de0b-4f6b-b106-01309778e42f

Matejkowski, J., (2020). DSW program summaries. [Unpublished manuscript]. School of Social Welfare, University of Kansas.

Category 1: Ethical and Historical Frameworks

Introduction to Advanced Social Work Practice (3 hours): This course is focused on preparing the entering DSW student to understand what is meant by Advanced Social Work Practice, and the social, political, and economic contexts in which social work leadership, translational research and social work education and instruction are embedded. Topics include the structure of higher education in the US, contemporary policy and administrative challenges, issues of diversity, equity and inclusion in higher education, and the infrastructure that guides research, including accountability to funders and university standards of the ethics and rigor of knowledge development. An introduction to common theoretical and conceptual ideas is presented, along with the development of shared definitions of terms used in the arenas of both higher education and organizational leadership.

Category 2: Leadership and Administrative Practice Knowledge, Theory and Skills

Funding Human Services and Social Change: Financial management and budgeting (3 hours): This course will introduce students to the fundamentals of managing the financial aspects of an organization. Students will develop the skills necessary to understand and develop balance sheets and program budgets that promote equity and inclusion. Students will also develop necessary skills for identifying funding sources and writing grant proposals appropriate for human service provision and anti-oppressive social change efforts.

Evidence informed leadership and management (3 hours): This course will cover various theories of leadership and management. Students will learn to engage in leadership practices across the social ecology, including leadership of agencies that serve individuals and organizations focused on structural change. Students will develop a style of leadership that is strengths-based, and trauma-informed and which promotes diversity, equity and inclusion. Topics would include theories of leadership & team building (best practices), multi-system competency (macro-micro) community engagement, the use of public discourse & technology (communications), strengths-based practice and trauma informed care (trauma awareness).

Community engagement and advocacy (3 hours): This course will cover various aspects of engaging with the community, with a focus of ensuring that organization activities serve the diverse interests and needs of their constituents. The course will cover models of engaging in advocacy that centers the needs and strengths of diverse, equitable and inclusive communities, such as community organizing. Policy practice will be considered as a form of advocacy. The course will also cover approaches to identifying community strengths and needs.

Human service program development and design (3 hours): This course will cover the life course of a program, beginning with employing existing evidence for the development of the program its design. Students will develop the necessary skills to design and develop programs to address particular needs of culturally diverse individuals and communities.

Grant writing (1.5 hours): This course will discuss the fundamentals of grant writing, including identifying appropriate funding sources, capturing the strengths and needs of the constituents served by the program in ways that meet funders' requirements, and leveraging existing evidence to write a compelling proposal.

Creating social momentum through public communication (1.5 hours): This course will cover utilizing the multitude of modern media tools to gain public support for social welfare initiative that promote diversity, equity and inclusion. Topics will include describing community strengths and needs in ways that compel constructive action and making relevant research and evidence accessible to a popular audience.

Category 3: Research and Inquiry

Research and evaluation for building evidence, assessing outcomes and promoting equity. (**3 Hours**): This course is an in-depth introduction to the process of conducting research. A comprehensive approach is taken to covering the full research design process, considering quantitative, qualitative and mixed methods approaches, and the evaluation of program outcomes. The course also integrates topics related to structural bias, systemic oppression, and strategies for anti-oppressive research, and addresses ethical issues in the conduct and dissemination of research.

Assessing and using evidence to design and improve multi-level interventions in social work (3 Hours): This course develops students' knowledge and skills for identifying, assessing, and critiquing the empirical evidence on current interventions and practices in social work. The focus is on conducting multi-dimensional, value-critical inquiry about "best practices" relevant to social work and applying the results of that inquiry toward designing and improving interventions or practices that are multi-level. The course introduces the foundations of evidence-based practice, systematic review of the literature, critical evaluation of empirical studies, and structured data synthesis to assess the quality of evidence. In addition to covering approaches for rigorous methodological critique, the course emphasizes value-critical frameworks for assessing research in relation to anti-oppressive principles.

Understanding translational and implementation science (3 Hours): This course provides students with the foundation for understanding and applying implementation science principles and practice. Using a critical perspective with a focus on identifying and using effective strategies for translating research into practice, the course introduces key concepts of implementation science and a variety of theories and frameworks for guiding implementation efforts. Students gain knowledge and skills in identifying implementation facilitators and barriers and developing and supporting key implementation strategies. Implementation is examined from an equity lens to consider how implementation processes can promote racial equity and social, economic, and environmental justice. The course also covers evaluation of implementation, including measures designed to examine implementation processes and outcomes.

Category 4: Pedagogy and Instruction

Integrative and critical approaches within educational theory and pedagogy (3 hours): This course is focused on providing DSW students with a strong theoretical foundation for effectively teaching adult learners in social work courses at all levels of higher education. Topics will include theories of pedagogy/andragogy; educational psychology; classroom and teaching strategies; understanding, assessing, and supporting a diverse array of learning styles; pacing; effective use of classroom time; ethics in teaching and learning; creating positive classroom dynamics; critical pedagogy and anti-oppressive and indigenous teaching models; and tools for evaluating teaching. Specific emphasis will be placed on attending to diversity, equity, and inclusion within classroom settings, and developing skills to facilitate conversations on issues of oppression and privilege.

Diversity and accessibility in curriculum design and development (3 hours): This course is focused on reviewing and designing course curricula and materials, as well as understanding the delivery of social work education in the context of the Council on Social Work Education's (CSWE) Education Policy and Accreditation Standards (EPAS). Particular attention will be given to issues of diversity and accessibility when designing course curricula. Topics will include developing curricula that incorporate social work knowledge, skills, and values; methods for assessing curricular outcomes; syllabus and assignment construction; topic selection; lesson planning; alignment of individual courses to the overall curriculum; ensuring range of topics in alignment with curriculum; mapping individual goals of courses to overall learning objectives; assurance of well-articulated, high quality course goals mapped to curricular goals; assuring the sequencing of courses so that learning is conceptually built over time; establishment of standards for evaluating curricular achievement; ability to assess classroom climate; continuous

quality improvement so that program can be responsive to needed changes; and relationship of the curriculum to the overall institutional mission. Special attention will be paid to promoting the advancement of underrepresented students, the impact of stereotype threat, gender gaps in the academy, structural inclusion issues and their impact on accessibility, and the role course structure can play on student persistence and advancement.

Advising, mentoring, and supervision (3 hours): This course is focused on preparing DSW students with the knowledge, skills, and values needed to advise, mentor, and supervise individuals in higher education or as advanced practitioners. Course content will be framed in the context of reflexivity and anti-oppressive social work practice. Topics will include professional/academic vs. holistic advising; the mentor/mentee relationship and its role in student success; strategic mentoring and established best practices in mentoring; formal vs. informal mentoring processes; conflict resolution in mentoring; learning communities; establishing supervisory plans; goal-setting; peer observations; performance-based mentoring; research behind mentoring; career readiness; engagement; the lifespan of the mentoring relationship; mentor selection; evaluating supervisory relationships; and conflicts of interest in mentoring and supervision. The course will include theoretical models for the mentoring relationship, including a review of mentoring approaches specific to underrepresented minority students, including organizational strategies, faculty strategies, and a review of mentee strategies.

Category 5: Capstone Portfolio Seminars

In line with other advanced practice doctorate social work programs (Appendix A - DSW Program Summaries), the DSW program proposed will provide six credit hours of instruction toward students attaining program objectives academically equivalent to a dissertation.

Capstone Seminar 1 (1.5 hours): This seminar provides students with an emphasis on understanding basic expectations and requirements of a Capstone Project, along with potential ethical and pragmatic issues they may face as they conduct a study in a specified area of social work practice. Students are encouraged to begin outlining how their work might be conceptualized and begin laying the foundation for a final project of inquiry for their DSW Program. A passing grade in Capstone Seminar 1 is required for students to advance to the next class.

Capstone Seminar 2 and Comprehensive Oral Exam (3.0 hours): This seminar provides students with the experience of designing and launching a research study that will be presented as their Capstone project. Drawing on their theoretical, practice and inquiry course work, students will work intensively on their proposal during this seminar, which is conducted over a two-week period and culminates in the Comprehensive Oral Exam. The purpose of the Comprehensive Oral Exam is to evaluate the student's development of expertise in an area of practice as reflected in the proposal for their Capstone project. The emphasis will be on working with the instructor and their student colleagues as they prepare a proposal to submit to their Capstone Chair and Committee. The Comprehensive Oral Exam will be conducted in adherence with University and Graduate Studies policy including, but not limited to: *Doctoral Degree Comprehensive Oral Exams, Doctoral Student Oral Exam Committee Composition, Graduate Student Oral Exam Attendance*. A passing grade on the comprehensive oral exam is required to advance to the next level of classes.

Capstone Seminar 3 (1.5 hours): This seminar provides students with the experience of submitting and defending their Capstone project. This final campus will bring students to campus to make final edits on their capstone projects and prepare intellectually for their project defense. Emphasis will be on helping students make any final changes and to anticipate and respond to questions that their Capstone Committee members might raise about their work. The final projects will be presented, and students will receive feedback to help them to prepare their project for submission and dissemination in scholarly publications such as books, journals, or as manualized interventions. A passing grade in Capstone Seminar 3 is required in order to be awarded the DSW and this class serves as the equivalent of the Final Dissertation Defense.

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From: Louanne Bakk, DSW Program Director, University at Buffalo School of Social Work
Melinda Gushwa, Director of School of Social Work, Simmons University (Panel Chair)
Tonya Hansel, DSW Program Director, Tulane University School of Social Work

To: Samantha Christy-Dangermond, Director of Academic Affairs
Amy Robinson, Executive Assistant for Academic Affairs

Re: DSW External Panel Report

Date: March 23, 2022

On February 22, 2022, a review was conducted re: the School of Social Welfare's proposal for a Doctor of Advanced Social Work Practice (DSW) program. The Panel met with multiple key stakeholders including representatives from the School of Social Welfare, the University, and the Board of Regents. Overall, we found the proposal and associated presentations and conversations to be well-organized and sufficiently detailed, resulting in a strong proposal with multiple strengths and no areas of concern noted. Please see below for specific criteria and responses. Please note "the proposal" refers to the written proposal and content explored and discussed during our meetings with key stakeholders.

Section 1: Program Justification

We noted that the proposal clearly established a need for the program that was central to the mission of the University of Kansas. Local and comparative advantages were clearly described. The proposal provided sufficient information on similar/related programs and rationale for the location of the program. The proposal was clearly a priority for the University, which fits in with the Jayhawk Global initiative. The proposal presented MSW alumni data that indicated that there was sufficient demand that matches initial projections/scope of the proposed program. Admission criteria for the potential student pool was clearly described and consistent with typical DSW admissions criteria. The proposal provided data which supported demand for DSW graduates in the region, as well as a market-competitive tuition pricing plan.

Section 2: Curriculum

We noted that the curriculum clearly described the academic objectives of the program, explaining the knowledge and skills students will use to inform their post graduate trajectories. A program plan was provided which outlined specific courses and associated content. The content was consistent with the aims for a doctor of advanced practice in social work program. The proposed curriculum will employ a capstone model as the final product of doctoral study. The capstone requires students to engage in intense work on projects in their area of interest. Students will propose and defend their projects as part

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of the capstone experience. Given our experience, we encouraged faculty to carefully consider the time and resource demands associated with providing guidance and support to DSW students with capstone projects as program planning and development continues. In sum, the proposal clearly connects all components of the curriculum with the proposed goals of the DSW program, which prepares graduates to: 1) provide leadership in anti-oppressive social work in both agency and community contexts, 2) develop and apply research-informed knowledge to organizational and community contexts, 3) serve as world-class teachers and mentors.

Section 3: Program Faculty

We noted that the proposal explicated specific information on program leadership and core program faculty, with all faculty possessing the skills and experiences sufficient for teaching in a practice doctoral program. Multiple faculty have expressed interest in teaching in the DSW program. In our meeting with faculty, there were some concerns expressed regarding resources for the program regarding faculty time and capstone staffing. These concerns were apropos to the situation and we encourage program leadership to share specific plans about staffing of the DSW program with faculty as soon as details become available. Multiple faculty have expertise in course design and instruction in the online space. Additionally, Jayhawk Global will provide faculty with training and support as needed. The proposal included a budget and timeline for implementation that was specific and achievable.

Section 4: Academic Support

We noted that the proposal clearly outlined a feasible and comprehensive plan for academic support, including the following services: KU School of Social Welfare professional and academic writing tutor, dissertation/ thesis accelerator, CAPS personal counseling services and My Student Support Program (MY SSP). Additionally, the staffing plan includes a program director (1.0 FTE), capstone coordinator clinical faculty (1.0 FTE) and budgeting for success coaches and call center staff, with all success coaches holding membership in the National Academic Advising Association. Success coaches will serve as advocates and connectors for resources for students. Further, the KU Library has the resources necessary to provide students with a variety of online resources to support students' learning needs.

Section 5: Facilities and Equipment

We noted that the proposal outlined rationale for online instruction and provided sufficient detail on support for the development of an online curriculum via the KU Center for Online and Distance Learning (CODL), with a dedicated senior instructional designer assigned to work exclusively with the DSW Program. Additionally, CODL, in concert with Jayhawk Global, will provide support and troubleshooting services for faculty throughout the life of the DSW program. As the program is online, no new physical facilities are needed.

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Section 6: Program Review

We noted that the proposal provided a comprehensive plan for program review, with the DSW program engaging in department self-study as required by the Kansas Board of Regents, as well as a plan for annual assessment in keeping with the recommendations of the Higher Learning Commission and discipline-specific review as outlined by the Council on Social Work Education (CSWE). The proposal indicates a plan to seek accreditation by CSWE (which is currently piloting accreditation for DSW programs) as soon as feasible. The proposal outlines a plan for annual measurement of student learning outcomes, as well assessment of both implicit and explicit curriculum that align with CSWE competencies.

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Kansas State University has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process. Board staff concurs with the Council of Presidents and the Council of Chief Academic Officers in recommending approval.

May 3, 2022

I. General Information

A. Institution   Kansas State University

B. Program Identification
    Degree Level: Master's
    Program Title: Communication Sciences and Disorders
    Degree to be Offered: Master of Science in Communication Sciences and Disorders
    Responsible Department or Unit: College of Health and Human Sciences: Department of Applied Human Sciences
    CIP Code: 51.0201
    Modality: Face-to-Face
    Proposed Implementation Date: Fall 2022

    Total Number of Semester Credit Hours for the Degree: <u>51</u>

II. Clinical Sites: Does this program require the use of Clinical Sites? Yes.

Since the program already exists as a specialization within the Family Studies and Human Services master's degree program, no new clinical sites are required. Externship affiliation agreements are in place for over 25 pediatric / school / educational sites, and 25 medical / health care settings. Although most of the placement sites are in Kansas, the program has clinical site agreements throughout the Midwest. The program does not anticipate new demand being placed on the community due to our clinical sites. No more than 15 students require an off-campus clinical site during a semester. The Kansas State Speech and Hearing Center accommodates program clinical needs during the first four semesters of a graduate student's program of study

III. Justification

The Communication Sciences and Disorders (CSD) program joined the School of Family Studies and Human Services (FSHS) in 1994 with the degree offered as a specialization within FSHS. The master's program in speech-language pathology offered through Communication Sciences and Disorders (CSD) specialization has been continuously accredited at Kansas State University since 1972. Since 1996 the CSD program has graduated approximately 301 students with an M.S. degree. Graduates of the program successfully pass the national exam in speech-language pathology and achieve credentials (certification/state licensure) to practice as speech-language pathologists in employment settings across the lifespan (e.g., infant-toddler, schools, hospitals, skilled nursing facilities, private practices).

Given this successful history, the benefits of establishing an M.S. degree in Communication Sciences and Disorders at Kansas State University include:

1. More accurately represents the students' educational program/professional credential
2. Improves degree marketing and student recruitment capabilities
3. Enhances program visibility within the University

IV. Program Demand: Select one or both of the following to address student demand:

Communication Sciences and Disorders (CSD) program is a long-standing existing degree program as a sub-plan within the Family Studies and Human Sciences master's degree at Kansas State University. Enrollment in the 2-year CSD MS program over the past five years has been steady at an average of 34 total graduate students each year. Each new cohort is about 17 graduate students.

The Kansas Department of Labor reports a projected growth of 17.5% for speech-language pathologist in the state of Kansas between 2018-2028. In the State of Kansas, a total of three other universities have programs similar to ours: University of Kansas, Wichita State University, and Fort Hays State University. However, the collective graduation of master's students in all four programs for the 2020-2021 academic year was 81, indicating a continued need for CSD masters programs in the state of Kansas.

V. Projected Enrollment for the Initial Three Years of the Program

The table reflects the total number of CSD graduate students (1st and 2nd year students). The implementation year reflects the program's 5-year average.

Year	Total Headcount Per Year		Total Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	34	0	850	0
Year 2	35	0	875	0
Year 3	36	0	900	0

VI. Employment

The master's degree program prepares students to be licensed speech-language pathologist. Per U.S. Bureau of Labor Statistics, employment of speech-language pathologists is projected to grow 29% from 2020 to 2030 nationwide (compared to 8% for all other occupations). This higher-than-average growth is, in part, due to the aging baby-boomer population and associated speech-language and/or swallowing impairments that are the result of medical conditions. The BLS projects that about 15,200 openings for speech-language pathologists, on average, in the United States, over the next decade. The mean annual salary for speech-language pathologists was $83,24 in 2020.

The Kansas Department of Labor reports a projected growth of 17.5% for speech-language pathologist in the state of Kansas between 2018-2028. In the State of Kansas, the BLS reports the median annual salary for speech-language pathologist was $75,880 (May 2019). Over the past 20 years, upon graduation, Kansas State University master's students in CSD have consistently obtained full employment in settings such as the public schools, medical facilities, and private practice.

VII. Admission and Curriculum

A. Admission Criteria

To be considered for graduate admission, the applicant must have:

1. a bachelor's degree;
2. adequate undergraduate preparation in speech-language pathology or equivalent evidence of an appropriate background for undertaking an advanced degree program;
3. an overall undergraduate average of 3.0 or better;
4. an undergraduate average of 3.0 or better in the junior and senior years;
5. an undergraduate average of 3.0 or better in the major;
6. a personal statement regarding professional interests and goals (one page);
7. Graduate Record Examination (GRE) scores; and
8. three recommendation forms completed by instructors or possibly other individuals who can attest to the applicant's suitability for graduate study in speech-language pathology.

Interested students must complete the electronic application for graduate studies in CSD through the Graduate School. Applicants submit transcripts (unofficial or official) from **each** college and university attended, including Kansas State University. Official transcripts are required if recommended for admission.

Other electronic documents that are part of the application include:

- Personal statement (one page);
- Resume (optional);
- GRE scores;
- Three recommenders who complete an evaluation form.

In addition to university guidelines for English Proficiency Requirements, international applicants provide an audio recording of introduction to the program (about 5 minutes of talking).

B. Curriculum

Year 1: Fall   **SCH = Semester Credit Hours**

Course #	Course Name	SCH 9
CSD 745	Neuromotor Speech Disorders	3
CSD 750	Voice Disorders	3
CSD 701	Research Experience in Communication Sciences and Disorders	1
CSD 705	Practicum in Speech-Language Pathology	2

Year 1: Spring

Course #	Course Name	SCH 12
CSD 841	Acquired Language and Cognitive Disorders	4
CSD 742	Language Assessment and Intervention II	3
CSD 748	Cleft Palate	1
CSD 780	Instrumental Measurement for Clinical Application	2
CSD 705	Practicum in Speech-Language Pathology	2

Year 1: Summer

Course #	Course Name	SCH 8
CSD 744	Aural Rehabilitation	2
CSD 725	Augmentative and Alternative Communication	2

CSD 743	Communication Impairments in Autism Spectrum Disorders	2
CSD 705	Practicum in Speech-Language Pathology	1
CSD 706	Practicum in Audiology	1

Year 2: Fall

Course #	Course Name	SCH 8
CSD 741	Fluency Disorders	3
CSD 844	Dysphagia	3
CSD 705	Practicum in Speech-Language Pathology	2

Year 2: Spring

Course #	Course Name	SCH 8
CSD 847	Externship in Speech-Language Pathology	6
CSD 851	Professional Issues in Speech-Language Pathology	2

Year 2: Summer

Course #	Course Name	SCH 6
CSD 847	Externship in Speech-Language Pathology	6

Total Number of Semester Credit Hours …………………………………………………. 51*

*An available research option replaces one credit hour of CSD 701 for a total number of 56 semester credit hours.

Course #	Course Name	SCH optional
CSD 899	Masters Research	6

VIII. Core Faculty
> FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
Robert Garcia	Clinical Associate Professor	Au.D.	N	Audiology	0.50
Jane Garcia	Professor	Ph.D.	Y	Swallowing disorders caused by neurological conditions such as stroke, traumatic brain injury, cerebral palsy and disease processes	0.50
Kristin Pelczarski	Associate Professor	Ph.D.	Y	Fluency and fluency disorders; phonological processing and encoding; eye-tracking	0.50
Nandhu Radhakrishnan	Associate Professor	Ph.D.	N	Voice disorders; vocology	0.50
Melanie Hilgers	Clinical Associate Professor	M.S.	N	Early intervention; auditory processing disorders	0.50

DeAnna McCloud	Clinical Assistant Professor	M.S.	N	Communication development and disorders associated with infants, toddlers, and school aged children and teletherapy service delivery	0.50
Jeridy Oetken	Clinical Assistant Professor	M.S.	N	Communication development and disorders with preschool and school aged children	0.50
Emily Johnson	Clinical Assistant Professor	M.S.	N	Communication and autism; preschool speech and langue disorders	0.50

Number of graduate assistants assigned to this program **……………………………………… 3**

Note: A master's degree is considered an appropriate terminal degree for the bachelor's level instruction as this is a clinical program.

IX. Expenditure and Funding Sources

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty*	$319,887	$321,284	$332,810
Administrators *(other than instruction time)***	$0	$0	$0
Graduate Assistants***	$55,152	$57,358	$59,652
Support Staff for Administration (*e.g., secretarial*)*	$37,286	$38,032	$38,792
Fringe Benefits *(total for all groups)*	$117,487	$117,487	$117,487
Other Personnel Costs	$0	$0	$0
Total Existing Personnel Costs – Reassigned or Existing	$529,812	$534,161	$548,741
Personnel – – New Positions			
Faculty	$0	$0	$0
Administrators *(other than instruction time)*	$0	$0	$0
Graduate Assistants	$0	$0	$0
Support Staff for Administration (*e.g., secretarial*)	$0	$0	$0
Fringe Benefits *(total for all groups)*	$0	$0	$0
Other Personnel Costs	$0	$0	$0
Total Existing Personnel Costs – New Positions	$0	$0	$0
Start-up Costs - - One-Time Expenses			
Library/learning resources	$0	$0	$0
Equipment/Technology	$0	$0	$0
Physical Facilities: Construction or Renovation	$0	$0	$0
Other	$0	$0	$0

Total Start-up Costs	$0	$0	$0
Operating Costs – Recurring Expenses			
Supplies/Expenses	$35,000	$35,000	$35,000
Library/learning resources	$0	$0	$0
Equipment/Technology	$30,000	$30,000	$30,000
Travel	$4,000	$4,000	$4,000
Other	$0	$0	$0
Total Operating Costs	$69,000	$69,000	$69,000
GRAND TOTAL COSTS	$598,812	$603,161	$617,741

*Includes 2% increase in salary each year.
**The program will continue to fall under the direction of the Department of Applied Human Sciences head, so no direct administrative support is needed.
***Includes tuition assistance and assumed 4% increase in tuition assistance each year.

B. FUNDING SOURCES *(projected as appropriate)*	First FY	Second FY	Third FY
Tuition*	$409,632	$421,680	$433,728
College Revenue Center Funds**	$83,615	$73,576	$73,735
Student Fees***	$24,310	$25,025	$25,740
Other Sources****	$81,255	$82,880	$84,538
GRAND TOTAL FUNDING	$598,812	$603,161	$617,741
C. Projected Surplus/Deficit (+/-) (Grand Total Funding *minus* Grand Total Costs)	$0	$0	$0

* Represents tuition returned to college/department via KSU RCM budget model based on 2022 tuition rates.
** Represents funding received from College of Health and Human Services Revenue Center Investment
*** Represents $28.60/SCH college course fee.
****Revenue generated from clinic fees projected to increase by 2% annually.

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions
All faculty are currently employed in the Department of Applied Human Sciences, which will not change with the new degree proposal. A modest pay increase of 2% was included for each year. The program will continue to fall under the direction of the Department of Applied Human Sciences head, so no direct administrative

support is needed exclusive to the CSD program.

Personnel – – New Positions

No new positions are projected.
Start-up Costs – One-Time Expenses

This is an existing program that is housed within the M.S. in Family Studies and Human Services degree program as a specialization. No new costs are anticipated.

Operating Costs – Recurring Expenses

The program spends approximately $35,000 on student hourly expenses, clinic supplies, office supplies, phone usage, etc. Approximately $30,000 is needed each year for equipment upgrades and/or maintenance. A member of the faculty must attend annual accreditation meetings, which is estimated at $4,000 annually.

B. Revenue: Funding Sources
The Kansas State University responsibility centered management (RCM) budget model returns the tuition generated by graduate programs to the college. Tuition calculations are based on the projected enrollment table in section V above. Tuition calculations of $481.92/SCH is obtained by calculating 90% Kansas resident and 10% non-resident tuition rates for graduate tuition, as this is the 5-year average resident breakdown among CSD MS students. Kansas resident graduate tuition rate = $428.90/SCH; nonresident graduate tuition rate = $959.10/SCH.

C. Projected Surplus/Deficit
Any deficit or surplus in tuition generated directly from the Communication Sciences and Disorders degree program has been and will continue to be covered or used by the Department of Applied Human Sciences, which houses the degree in Communication Sciences and Disorders.

Because the Communication Sciences and Disorders program is an existing sub-plan within the Family Studies and Human Services master's degree program, and will continue to operate within the same department, the remaining funds needed to break-even are generated by other programs within the Department and College of Health and Human Sciences. Conversely, any excess funds are used to support other programs within the department.

XI. References

American Speech-Language-Hearing Association, (2020) *EdFind*, at
https://find.asha.org/ed/#sort=relevancy&f:@degreeprogram=[Master's%20Degree%20in%20Speech-Language%20Pathology]&f:@areaofstudy=[Speech-Language%20Pathology]&f:@state=[Kansas]

Bureau of Labor Statistics (January 22, 2022). U.S. Department of Labor, *Occupational Outlook Handbook*, Speech-Language Pathologists, at https://www.bls.gov/ooh/healthcare/speech-language-pathologists.htm

Kansas Department of Labor, *Kansas 10 Year Job Outlook* 2018-2028, https://www.dol.ks.gov/
At:https://klic.dol.ks.gov/vosnet/GSIPub/documentView.aspx?enc=RN+fslva0bSwyMCAu6NoOTP6o8sPnBG0fibYYPfUVTQ=

Program Approval

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Kansas State University has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process. Board staff concurs with the Council of Presidents and the Council of Chief Academic Officers in recommending approval.

May 3, 2022

I. General Information

A. Institution   Kansas State University Salina
                                                      Aerospace and Technology Campus

B. Program Identification
        Degree Level: Master's
        Program Title: Integrated Systems Design and Dynamics
        Degree to be Offered: Master of Science
        Responsible Department or Unit: College of Technology and Aviation
                                                      Department of Integrated Studies
        CIP Code: 30.0601
        Modality: Online, Hybrid
        Proposed Implementation Date: Fall 2022

        Total Number of Semester Credit Hours for the Degree: 32 total credits

II. Clinical Sites: Does this program require the use of Clinical Sites?   No

III. Justification

This new graduate degree in Integrated Systems Design and Dynamics (ISDD) was developed to support the development of senior "system-level" demands found within the high-tech aerospace industry. This graduate program greatly enhances, replaces and builds upon the prior Professional Master's degree of Technology at Kansas State University Salina (KSUS). KSUS's prior graduate degree - the Professional Master of Technology - was not a recognizable graduate degree within the broader STEM industry and did not market well to prospective students and employers alike. Recent industry workforce development research conducted at KSUS has determined that professional senior level skills in systems design and dynamics is in high demand. Leveraging 6,034 data samples, this research looked at market and job data from the aviation and aerospace industries to determine what types of jobs, skills, and qualifications are in demand. Using technical cybernetics, the graduate degree is focused on the planning, architecture, design, and development of highly integrated machine learning systems, autonomous systems, aerospace systems, space systems, cybernetic systems, cyber and cyber-physical systems.

The cybernetic foundations of the Salina-based program are unique within the region. Further enhancing the ISDD graduate degree, graduate engineering course options at KSU's College of Engineering are also available to students within the elective portion of the ISDD program. Industrial demand for the skillsets developed in this new graduate degree have grown rapidly especially within the "Industrials: Aerospace & Defense" market sector. The employment outlook for graduate degree holders in the *integrated systems design and dynamics* field is very

positive at all geographic levels. Much like our Machine Learning and Autonomous Systems (MLAS) bachelor's degree offering, our market research has determined that there is a distinct opportunity for graduate degrees offered within ***Integrated Systems Design and Dynamics (ISDD)***. This indicates an opportunity for KSUS to compete in this integrated systems niche.

IV. Program Demand:

A. Market Analysis

In January of 2021, KSUS embarked on a workforce development study. The primary goal was focused on developing talent to serve the needs of the broader aerospace industry. The workforce development research highlighted a demand (and gap) of skills that exist beyond that of aviation pilots and mechanics. The industrial financial market data collected from various investment institutions illustrates a market sector approaching $1.2 trillion dollars in market capitalization (Aerospace & Defense, Air Freight & Logistics, and Airlines) (Fidelity, 2021). The largest corporate players in this space consist of Boeing, Lockheed Martin, Raytheon, and Textron. While the total aviation portion of the aviation and aerospace industry has been hit hard due to COVID, the more technologically focused aerospace portion of the industry segment has illustrated strong growth (Deloitte, 2021). This suggests a viable ecosystem for the ISDD graduate degree program (Duke, 2018).

In the workforce development study conducted by KSUS, the word "systems" showed up in roughly 13% of the total job titles pulled (n = 6,034) and was found roughly 16% of the time in the listed skills required for the job (Werner & Pritchard, 2021). A quick search on Indeed of "systems science" jobs requiring a graduate degree yields over 100,000 hits. Similarly, positions in systems engineering requiring a graduate degree yields 70,629 postings. According to a 2018 study conducted by the American Society of Engineering Education (Roy et al., 2021), only 5,260 individuals were enrolled in an Industrial/Manufacturing/Systems graduate program and 1,587 were enrolled in an aerospace graduate program. Furthermore, the demand for graduates who pose aerospace-based skill sets is outpacing the annual number of graduates from US academic organizations (Ward, 2021). This illustrates an addressable market potential for the ISDD program, especially since the ISDD program is able to offer upskilling services for aerospace and non-aerospace students alike.

Additionally, we surveyed our larger ISDD industry advisory board to review the attractiveness of this new graduate degree proposal and after being surveyed they estimated that the target learner audience for this program works best for Junior-Level and Mid-Level industry professionals (81%). In a follow-up question within that survey, the ISDD industry advisory members overwhelmingly listed "System Engineer" as the top job title for graduates coming out of this program. Lastly, 90% of the ISDD industry advisory board members stated that they would be interested in hiring graduates from this program, with 40% saying they would be "very interested" in hiring students from this program. The nearest graduate degree programs are offered by the more business-oriented options found at Worcester Polytechnic Institute (Worcester Polytechnic Institute, 2022) and Massachusetts Institute of Technology (Massachusetts Institute of Technology, 2022). This degree is a technologically oriented degree grounded in technical cybernetics and system dynamics; making the ISDD program a truly unique option within the State as well as the region.

V. Projected Enrollment for the Initial Three Years of the Program

	Headcount Per Year			Semester Credit Hours Per Year		
	Full Time	Part Time	Total	Full Time	Part Time	Total
Year 1 (Start)	4	7	11	96	105	201
Year 2	8	12	20	192	180	372
Year 3	14	18	32	336	270	606

PT = 6 hrs per/sem, 12 hrs per/year + 3 for summer | Annual Estimated Total: 15 Hrs
FT = 12 hrs per/sem, 24 per/year | Annual Estimated Total: 24 Hrs

VI. Employment

The employment outlook for integrated systems-related occupations is positive. Federal data projects a faster-than-average employment growth for system developers, engineers and other related occupations over a ten-year period in Kansas, the region, and the nation (Bureau of Labor Statistics, 2020a). Additionally, the program contains two specialization programs (cybersecurity and machine learning), where employment growth in these areas are expected to grow by more than 30% over the next ten years (Bureau of Labor Statistics, (2020b). Current job listings underscore this trend in substantial labor demand, especially for senior-level professionals who are versed in integrated systems design and architecture. An understanding of systems and the ability to think and work systematically when approaching industry problems is becoming increasingly vital for employees hired in a variety of technical, engineering, science, and business positions. Additionally, comprehension of system dynamics is frequently sought after for research and education in many different fields, as well as for analysis by large companies, governments, international agencies, and consulting companies.

A survey of aerospace industry data obtained from the Kansas Department of Commerce (Emsi, 2020) indicates the following:

1. Over 87% of the jobs advertised in this sector required at least a B.S. with 37% requiring an M.S. or Ph.D.
2. The average number of nationwide job postings at any one time is approximately 2,500 with an average salary of over $116,000/year.
3. Over 56% of current employees in this sector are over age 45.
4. Average number of job postings in the sector for the year ending in July 2020 was 6,451 with only 1,479 of those being filled.

Additional industry demand research indicates the following: (Werner & Pritchard, 2021)

1. Of 6,034 jobs analyzed in 2021, the top interdisciplinary "*system-based*" job skills in the aerospace industry are Cyber Security, Machine Learning, Artificial Intelligence; and
Systems Management, Systems Engineering, Smart Materials and Manufacturing.
2. The demand is high for senior level "systems" level personnel with experience in designing and developing highly integrated systems. This skillset was determined to be the highest when comparing aviation job titles to that of aerospace job titles.

While this new degree is open to all student learner types, this program will favor post-high school professionals. Our recent industry analysis illustrates that many students matriculating into this program will come with existing STEM degrees. Our expectation is that many students will be coming from various technologically-intense industries with between three to six years of experience who see reskilling/upskilling as critical to their future success.

VII. Admission and Curriculum

A. Admission Criteria

Candidates complete an application, and provide a resume, a personal statement, a writing sample, three letters of academic (or professional reference) positioned to comment on the candidates' ability to succeed in the MS program, and undergraduate and graduate transcripts (if applicable). An undergraduate GPA of 3.0 or above on a

4.0 scale is preferred. The criteria for admission to the program must include an earned bachelor's degree and three years of technical industry practice experience beyond the bachelor's degree. International candidates can provide evidence of English language proficiency through a TOEFL exam or the English Language Program. The program seeks candidates that illustrate strong visual, oral, and written communication skills, a commitment to diversity, equity and inclusion, and potential for applied research. Students may enter in a part-time or full-time capacity.

B. Curriculum

The program consists of 32 semester hours of graduate credit. This is comparable to other Master of Science programs housed within research-intensive (R1) universities (30~36 hours) and two credit hours above the minimum graduate credit hours required at Kansas State University.

Year 1: Summer   SCH = Semester Credit Hours

Course #	Course Name	SCH 6
CYBR 601	Introduction to Cybernetic Modeling and Simulation	3
CYBR 603	Integrated Systems Architecture	3

Year 1: Fall   SCH = Semester Credit Hours

Course #	Course Name	SCH 6
COT 682	Open Source Cyber Surveillance	3
CYBR 708	Cybernetic Systems Design and Dynamics	3

Year 1: Spring   SCH = Semester Credit Hours

Course #	Course Name	SCH 8
COT 684	Advanced Topics in Cyber Data Fusion	3
CYBR 707	Research Methods, Design, and Analysis	5

Year 2: Summer   SCH = Semester Credit Hours

Course #	Course Name	SCH 2
COT 839	Integrated Systems Thesis	2

Year 2: Fall   SCH = Semester Credit Hours

Course #	Course Name	SCH 5
CYBR 751	Cyber Defense Methods	3
COT 839	Integrated Systems Thesis	2

Year 2: Spring   SCH = Semester Credit Hours

Course #	Course Name	SCH 5
CYBR 760	Aerospace Cybersecurity Studio	3
COT 839	Integrated Systems Thesis	2

Total Number of Semester Credit Hours …………………………………………………. 32

VIII. Core Faculty

Note: * Next to Faculty Name Denotes Director of the Program, if applicable
FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
1. Michael Pritchard*	Assistant Professor	Ph.D.	Y	Cybernetics, Machine Learning & Autonomous Systems	0.5
Siny Joseph	Associate Professor	Ph.D.	Tenured	Economics & Systems Management	0.5
3. Mark Jackson	Professor	Ph.D.	Tenured	Mechanical Engineering & Aerospace Materials	0.5
4. Paul Thomas	Assistant Professor	Ph.D.	Y	Data Engineering, Systems Integration, & Management	0.5
5. Kurt Barnhart**	Professor	Ph.D.	Tenured	Aviation & Aerospace Systems	0.1
6. Austin Walden**	Assistant Professor	Ph.D.	Y	Aviation & Aerospace Systems	0.1
7. Randall Nichols**	Professor of Practice	M.S.	N	Uncrewed Aerial Systems & Cyber Defense	0.2
8. New Hire (2024)	Assistant Professor	M.S./Ph.D.	Y	Cyber Operations & Defense	0.5
9. Various (2024)	PT Adjunct (As Needed)	M.S./Ph.D.	N	Space Systems, Engineering, Orbital Mechanics, etc.	0.25
**The topics being taught in another program are also used in this program.*				*FTE Estimate Total ->*	3.15

Number of graduate assistants assigned to this program ……………………………………. **0**

(**Note:** *We do not anticipate the need for graduate assistants during the initial rollout of the ISDD program; however, we do plan on expanding on this as the curriculum becomes more mature.*)

IX. Expenditure and Funding Sources *(List amounts in dollars. Provide explanations as necessary.)*

A. EXPENDITURES	*First FY*	*Second FY*	*Third FY*
Total Existing Personnel Costs – Reassigned or Existing	$112,266	$274,428	$274,428
Personnel – New Positions			
Faculty	$0	$0	$60,000
Administrators *(other than instruction time)*	$0	$0	$0
Graduate Assistants	$0	$0	$0
Support Staff for Administration	$3,150	$6,300	$6,300
Fringe Benefits *(total for all groups)*	$21,168	$82,656	$81,900
Other Personnel Costs	$0	$0	$0

	First FY	Second FY	Third FY
Total Existing Personnel Costs – New Positions	$24,318	$88,956	$148,200
Start-up Costs – One-Time Expenses			
Library/learning resources	$0	$0	$0
Equipment/Technology	$150,000	$2,520	$5,040
Physical Facilities: Construction or Renovation	$0	$0	$0
Other (Marketing)	$80,000	$30,000	$30,000
Total Start-up Costs	$230,000	$32,520	$35,040
Operating Costs – Recurring Expenses			
Supplies/Expenses	$126	$252	$252
Library/learning resources	$0	$0	$0
Equipment/Technology	$2,000	$2,000	$2,000
Travel	$1,487	$2,974	$2,974
Other	$0	$0	$0
Total Operating Costs	$3,613	$5,226	$5,226
GRAND TOTAL COSTS	$370,197	$401,130	$462,894

B. FUNDING SOURCES	*First FY*	*Second FY*	*Third FY*
(projected as appropriate)	(New)	(New)	(New)
Tuition / State Funds	$137,856	$255,136	$415,625
Student Fees	$9,650	$17,860	$29,094
Industry & Government Funding	$70,000	$70,000	$70,000
Other Sources	$0	$0	$0
GRAND TOTAL FUNDING	$217,506	$342,996	514,719
C. Projected Surplus/Deficit (+/-) (Grand Total Funding *minus* Grand Total Costs)	($152,691)	($58,134)	$51,825

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions: A combined 3.15 FTE will come from faculty members as depicted in section VIII of this document. Faculty will be reassigned in the second half of the 2022-23 Academic Year.

Personnel – New Positions: A single faculty position is anticipated by year 3 of the program; 50% of the FTE shall be assigned to the ISDD, the other remaining shall be used to support undergraduate program (see "Faculty Name #9", Page 12, section VIII). A varying number of adjunct instructors will be critical to the success of this program from the standpoint of content currency and relevancy and will share the teaching load and we currently estimate this need at 0.25 of an FTE per semester.

Start-up Costs – One-Time Expenses: Limited to computer and office equipment. We may incur a $150K equipment cost for an additive 3D metal printer; this cost may be deferred via additional equipment grant funding streams we plan on pursuing to help augment the ISDD program cost structure.

Operating Costs – Recurring Expenses: Limited to office costs and travel

B. Revenue: Funding Sources

In addition to annual tuition and student fees, we expect Industry & Government Funding streams to chip in annually to the program as well. As of 2021, we have tentative commitments from various corporate donors. Of course, our primary funding stream will be generated from student tuition.

	Headcount Per Year			Semester Credit Hours Per Year			Revenue Forecast	ROI Estimate
	Full Time	Part Time	Total	Full Time	Part Time	Total		
Year 1	4	7	11	96	105	201	$217,506	**($152,691)**
Year 2	8	12	20	192	180	372	$342,996	**($58,134)**
Year 3	14	18	32	336	270	606	$514,719	**$51,825**

PT = 6 hrs per/sem, 12 hrs per/year + 3 for summer | Annual Estimated Total: 15 Hrs
FT = 12 hrs per/sem, 24 per/year | Annual Estimated Total: 24 Hrs

Part time students are calculated at 15 hours annually (6 hour per semester twice per year, plus a single 3 credit hour course over the summer); whereas full time are estimated at 24 hours (12 hours per semester twice per year). And using a blended tuition rate of $685.85 (Simple Average: $421 (in-state rate) + $949 (out-of-state rate)), we then take the total estimated credit hours for full time and part time students. We assume that more part time students, than full time students, will be enrolled in this program; additionally, we also assume more out-of-state students will be enrolling in this program due to the audience we will be marketing towards. We estimate – in the first year – based on 11 total students enrolled in 201 credit hours multiplied times the estimated blended rate, $9,650 in student fees, $70,000 for industry and government funding, and given these assumptions, we estimate that we will bring in roughly $217K of total revenue for the starting year. As enrollment increases, while considering ISDD program expenditures, we estimate that we will break even in the third year.
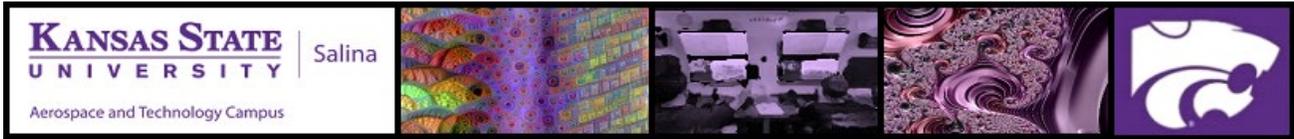
C. Projected Surplus/Deficit

The campus intends to develop a digital marketing campaign for this program largely modeled after the Machine Learning and Autonomous Systems (MLAS) digital marketing campaign. We expect program enrollments to increase after the second year of the program. These early cash marketing expenditures will help us to realize the estimated ROI. Additionally, we recognize that the blended tuition rate might not be the only approximation method for forecasting ROI, therefore, we have simulated a worst-case revenue model that relies strictly on gross in-state tuition and does not consider other possible funding streams (e.g., government grants, corporate research funding, or private donations). Even under this worst-case scenario, the program is estimated to break even in five to six years; however, in the most realistic scenario, we estimate a healthy return on investment within three to four years.

XI. References

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Appendix A - ISDD Industry Advisory Board

Industry Advisory Board for Integrated Systems Design and Dynamics, 10/4/2021				
Name	**Title**	**Company**	**Email**	**Phone**
Kendy Edmonds	Test & Evaluation Specialist, McCain Strategic Defense Fellow	United States Space Force	edmondskendy@gmail.com	(785) 640-6923
Paul Schultz	Lead Systems Engineer, Nuclear Network Security System	United States Air Force	paul.schultz09@gmail.com	(501) 358-3394
Jimmy Standaert	Chief Innovation Officer, Emerging Technologies, AI & Prescriptive Insights	RiGi Group	Jimmy@RiGiGroup.com	(913) 221-3137
Kelvin Quinonez	Software Engineer, Aerospace Systems Development	Boeing Corporation	kesqui7@gmail.com	(913) 424-9965
Kale Tarrant	Senior Manager & Systems Engineer	Boeing Corporation	kktarrant@att.net	(316) 393-0337
Jamie Adams	Senior Program Manager, Autonomous Sytems Division	Lockheed Martin	jamie.e.adams@lmco.com	(214) 801-4931
Catherine Fitkar	Aerospace Systems Engineer, HLS Mission Systems and Flight Ops	Blue Origin	catherine.fitkar@gmail.com	(206) 228-2480
Nabin Mishra, PhD	Principal Data Scientist, Computer Vision & Operations Research	T-Mobile Corporation	nabin.mishra@gmail.com	(618) 407-5950
Michael DeVries	Enterprise Archiect, Artificial Intelligence & Automantion	Harris Corporation	michael.devries@thevcf.com	n/a
Dan Eastman	Project Manager, Information Technology	General Dynamics	eastmand411@gmail.com	n/a
Claudeliah J. Roze	Director, Aerospace & Defense Industry	Raytheon Technologies	claudeliah.roze@gmail.com	(817) 528-2629
Kyri Barton	Director of Artificial Intelligence & Machine Learning	DRAIVER	kyribarton@gmail.com	(785) 829-3455
Tony Foster	Principal Technical Marketing Engineer	Dell EMC	tony.foster@wondernerd.net	(785) 819-6793

Active Industry Advisory Board Members List
Kansas State University, College of Technology and Aviation   *Create Date: 6/15/2021*

Appendix B – Five Year Projection

Summary

	Headcount Per Year			Semester Credit Hours Per Year			Revenue Forecast	ROI Estimate
	Full Time	Part Time	Total	Full Time	Part Time	Total		
Year 1	4	7	11	96	105	201	$217,506	($152,691)
Year 2	8	12	20	192	180	372	$342,996	($58,134)
Year 3	14	18	32	336	270	606	$514,719	$51,825
Year 4	19	23	42	456	345	801	$657,821	$164,993
Year 5	24	30	54	576	450	1026	$822,940	$300,012

PT = 6 hrs per/sem, 12 hrs per/year + 3 for summer | Annual Estimated Total: 15 Hrs

FT = 12 hrs per/sem, 24 per/year | Annual Estimated Total: 24 Hrs

Detail

A. EXPENDITURES	*First FY*	*Second FY*	*Third FY*	*Fourth FY*	*Fifth FY*
Total Existing Personnel Costs – Reassigned or Existing	$112,266	$274,428	$274,428	$274,428	$274,428
Personnel – New Positions					
Faculty	$0	$0	$60,000	$70,000	$80,000
Administrators *(other than instruction time)*	$0	$0	$0	$0	$0
Graduate Assistants	$0	$0	$0	$0	$0
Support Staff for Administration	$3,150	$6,300	$6,300	$7,000	$8,000
Fringe Benefits *(total for all groups)*	$21,168	$82,656	$81,900	$90,000	$95,000
Other Personnel Costs	$0	$0	$0	$0	$0
Total Existing Personnel Costs – New Positions	$24,318	$88,956	$148,200	$167,000	$183,000
Start-up Costs – One-Time Expenses					
Library/learning resources	$0	$0	$0	$0	$0
Equipment/Technology	$150,000	$2,520	$5,040	$6,000	$7,000
Physical Facilities: Construction or Renovation	$0	$0	$0	$0	$0

	First FY	Second FY	Third FY	Fourth FY	Fifth FY
Other (Marketing)	$80,000	$30,000	$30,000	$30,000	$30,000
Total Start-up Costs	$230,000	$32,520	$35,040	$36,000	$37,000
Operating Costs – Recurring Expenses					
Supplies/Expenses	$126	$252	$252	$400	$500
Library/learning resources	$0	$0	$0	$0	$0
Equipment/Technology	$2,000	$2,000	$2,000	$10,000	$20,000
Travel	$1,487	$2,974	$2,974	$5,000	$8,000
Other	$0	$0	$0	$0	$0
Total Operating Costs	$3,613	$5,226	$5,226	$15,400	$28,500
GRAND TOTAL COSTS	$370,197	$401,130	$462,894	$492,828	$522,928

B. FUNDING SOURCES	*First FY*	*Second FY*	*Third FY*	*Fourth FY*	*Fifth FY*
(projected as appropriate)	(New)	(New)	(New)	(New)	(New)
Tuition / State Funds	$137,856	$255,136	$415,625	$549,366	$703,682
Student Fees	$9,650	$17,860	$29,094	$38,456	$49,258
Industry & Government Funding	$70,000	$70,000	$70,000	$70,000	$70,000
Other Sources	$0	$0	$0	$0	$0
GRAND TOTAL FUNDING	$217,506	$342,996	514,719	657,821	822,940
C. Projected Surplus/Deficit (+/-)					
(Grand Total Funding *minus* Grand Total Costs)	($152,691)	($58,134)	$51,825	$164,993	$300,012

Program Approval

Summary

Universities may apply for approval of new academic programs following the guidelines in the Kansas Board of Regents Policy Manual. Kansas State University has submitted an application for approval and the proposing academic unit has responded to all of the requirements of the program approval process. Board staff concurs with the Council of Presidents and the Council of Chief Academic Officers in recommending approval.

May 3, 2022

I. General Information

A. Institution Kansas State University

B. Program Identification

Degree Level:	Bachelor of Science
Program Title:	Entomology
Degree to be Offered:	Entomology
Responsible Department or Unit:	College of Agriculture
CIP Code:	26.0702
Modality:	Face-to-Face, Online, Hybrid
Proposed Implementation Date:	Fall 2022

  Total Number of Semester Credit Hours for the Degree: 120

II. Clinical Sites: Does this program require the use of Clinical Sites?   NO

III. Justification

A market analysis conducted in February 2020 suggests there are about 2,500 high-quality jobs annually in the central United States that require, or prefer, a B.S. in Entomology. Moreover, about 100 Entomology degrees are conferred annually in this region, indicating a substantial shortage of qualified applicants. There are only 16 universities in the nation with an entomology program and only one other that offers specialization in Pre-Veterinary & Medical Entomology training. K-State Entomology is uniquely positioned to train students in insect-related Animal Health issues, as well as plant health and stored products entomology, given our established relationships with National Bio and Agri-Defense Facility (NBAF) and the United States Department of Agriculture (USDA), and their scientists working both within and outside our Department. With this diverse range of opportunities and the job market analysis, our proposed program is student focused and built to reflect the needed flexibility of what it means to be a 21st century Entomologist. Our program is intended to work for new students beginning their college careers, transfer students with any number of previous credits, and established students looking for a cost-effective way to increase their marketability by adding a second degree.

IV. Program Demand: Select one or both of the following to address student demand:

A. Survey of Student Interest

This survey below was conducted with Spring 2021 graduates only, thus the small sample size. However, we have been asking students who minored in the discipline at their exit interview this question for about six years

now and their response is similar with about 50% saying they would have majored or duel degreed in Entomology if the option was available. It was these responses that originally motivated our plans to develop a new B.S. program.

<blockquote>
Number of surveys administered: ………………   9
Number of completed surveys returned: ……….   8
Percentage of students interested in program: … 75%
</blockquote>

B. Market Analysis

The Department of Entomology is currently the largest Entomology minors program in the country according to an internal poll of Entomology Departments across the US. This informal survey also showed that there are only 16 universities out of the 39 responding that offer an Entomology BS degree. We have offered an undergraduate research experience for students across K-State, which initially started with 19 student labs and had over 160 students this past year conducting research in multiple labs across several Colleges and Departments. The five-year average for enrollment is 22 enrolled with seven receiving a degree. Consequently, this research experience now serves as a recruitment tool for other programs within the College of Agriculture. With an established track record of recruiting students into our minors program, we anticipate a considerable portion of these students would be interested in a dual degree options.

This new degree will take advantage of our current recruitment efforts across the state. We work closely with K-12 educators. We offer a summer soybean science institute and a mentorship and leadership institute for program alumni looking to expand inquiry-based teaching methods into classrooms across Kansas. Over 150 teachers have completed the program over the past ten years, and nearly $1M in funding has been secured from state commodity organizations to promote these efforts. We intend to expand our promotion to create increased awareness for STEM jobs in Agriculture, which aligns heavily with our proposed degree options. Our graduate student club, K-State Popenoe Entomology Club, sells insect collections as a service to Agriculture Education/FFA instructors across Kansas. The collections include 70 specimens needed to prepare for the Entomology section of the FFA Career Development Event (CDE), which is sponsored by the Department of Entomology at Kansas State University. Our Insect Zoo is another activity that allows direct interaction with over 8K patrons every year and is used in nearly all undergraduate Entomology courses at K-State.

V. Projected Enrollment for the Initial Three Years of the Program

Year	Total Headcount Per Year		Total Sem Credit Hrs Per Year	
	Full- Time	Part- Time	Full- Time	Part- Time
Implementation	10		300	
Year 2	22		660	
Year 3	36		1,080	

This projection starts with a cohort size of 10 students, then increases the cohort size by 2 each year.

VI. Employment.

Data from the US Bureau of Labor Statistics shows there are greater than 300,000 jobs as Agricultural and Food Scientists, Medical Scientists, and Biological Scientists with projected growth of approximately 5% by 2029 and a median salary of over $80,000. These data are more general than those focused specifically on Entomology, so we conducted a market analysis. This market analysis was conducted just prior to the COVID pandemic and indicated there are 2,368 annual job openings, in our region, under the Entomology CIP code, with only 119 degree program completions from states in our region (11 states including, AR, CO, IL, IA, KS, MN, MO, NE, OK, TX, WI). This means there are **19 annual job openings for every degree completion**. Salaries ranged from $45,000 to $60,000 for B.S. & M.S. degrees based on the market analysis, with ZipRecruiter suggesting a slightly higher range of $52,000 to $80,000. The average salary for all Entomology jobs was $86,528 as it also

included Ph.Ds. A B.S.degree in Entomology doubles your life-time earnings relative to a H.S. degree, yielding on average a $1.6 million return on investment assuming an individual works until age 67.

A survey of jobs on Indeed.com conducted on August 17, 2021, shows that there were 9,955 jobs nationally related to insects, 37,987 related to infectious disease, a primary area of study for our students, and 2,110 jobs related to insect pests. These data suggest there are a significant number of Entomology-related jobs.

VII. Admission and Curriculum

A. Admission Criteria

Our admission criteria are the University standards. Admission to the university is test-optional and requires achieving EITHER:
- A cumulative high school GPA (weighted or unweighted) of 3.25 or higher **OR**
- ACT composite score of 21, or an SAT ERW+M score of 1060 or higher
  AND, if applicable, achieve a 2.0 GPA on all college credit taken in high school. If you do not meet these assured requirements, you are still encouraged to apply. Your application will be reviewed individually.

B. Curriculum

Our curriculum is built around both Entomological training and the skills the market analysis revealed that employers are looking for in new hires. Entomology skills and professional specialization, in particular those courses that allow students to focus on Animal Health Entomology, Plant Health Entomology, Stored Product Entomology, or basic insect biology, are found in the "Entomology" and "Entomology and Professional Specialization" portion of the curriculum. The flexibility of the "Entomology and Professional Specialization" portion of this curriculum reflects the diversity of areas that modern-day Entomologists occupy. For example, about half of the faculty in the Department of Entomology have PhDs in other disciplines. Concurrently, there are faculty with Entomology training and degrees in departments outside of Entomology, including Biology, Biochemistry, Grain Science, Plath Pathology, Horticulture, Agronomy, and Veterinary Medicine. Thus, a "one-size fits all" model isn't appropriate for our students as it doesn't reflect the breadth of career possibilities for individuals with an Entomology degree. In total, there are 45 Entomology credits in these two sections, with 15 of those credits tied to specialization. Moreover, ENTOM 400, 405, 410, 499, and 695 are courses that specifically address employer-desired skills based on the market analysis.

In addition to Entomology training, employers are keen to hire individuals with strong leadership and critical thinking skills as well as an understanding of business operations and management. Given the importance of these two areas, we require six credits in each. Other critical skills that employers are looking for include (i) experience with data analysis, (ii) a basic understanding of some discipline within bioscience, (iii) the ability to communicate effectively, and (iv) some deeper understanding of Agriculture in general. As such, we require three plus credits in each of these areas to provide all of our students a foundational background that allows them to meet minimum requirements for any entomology-related job. Students can then choose six additional credits in any of these areas to build a strength and make themselves highly competitive for jobs with that particular focus.

The remaining credits in Natural Science/Mathematics (18-20 credits), Humanities/Social Science (nine credits), University Requirements (eight credits), and Free Electives (≤ ten credits) round out a student's training. These credits provide a solid background in basic science and the humanities, while allowing students the opportunity to explore a wide range of courses that could ultimately shape the trajectory of their career.

As outlined above, a key strength of this proposed degree program is that it allows students to specialize in any current or emerging area of Entomology – a strength not found in any other Entomology program in the country. And while this strength offers advantages for training students and aligns perfectly with K-State's Economic Prosperity Plan, it does make it difficult to represent all possible degree plans with a single example. However, the below curriculum example represents what a "typical" Entomology student that is focused on animal health, bioscience, and data analysis would take each semester. It includes 35 credits of Bioscience/Animal Health (20 of which are from Entomology), 14 credits of Business/Economics, and 11 credits of statistics. Almost all courses in Entomology include research methods, data collection, and data analysis, so students will be well trained in data analysis and critical thinking – both skills that employers strongly desire in their new hires.

Overview of curriculum:

Year 1: Fall   **SCH = Semester Credit Hours**

Course #	Course Name	SCH (15)
ENTOM 100	Entomology Foundations	1
ENTOM 305	Animal Health Entomology	2
ENTOM 306	Animal Health Entomology Laboratory	1
ENTOM 400	Insect Sampling and Surveillance	2
GENBA 110	Business Foundations	3
ENGL 100	Expository Writing 100	3
MATH 100	College Algebra	3

Year 1: Spring

Course #	Course Name	SCH (15)
ENTOM 312	General Entomology	3
ENTOM 405	Introduction to Insect Data Analysis	1
ENTOM 410	Introduction to Insecticides	1
COMM 106	Public Speaking 1	3
BIOL 198	Principles of Biology	4
ENGL 200	Expository Writing 200	3

Year 2: Fall

Course #	Course Name	SCH (15)
ENTOM 499	Undergraduate Research Experience	1
ENTOM 300	Economic Entomology	3
PHILO 125	Introduction to Philosophy of Science	3
CHM 110	General Chemistry	3
ASI 500	Genetics	3
AGEC 115	Decision Tools for Agricultural Economics and Agribusiness	2

Year 2: Spring

Course #	Course Name	SCH (15)
ECON 110	Principles of Macroeconomics	3
BIOL 455	General Microbiology	4
BIOCH 265	Introductory Organic and Biochemistry	5
GENAG 210	Human and Cultural Diversity in the Food and Agricultural Sciences	3

Year 3: Fall

Course #	Course Name	SCH (15)

ENTOM 630	Introduction to Molecular Entomology	3
ENTOM 625	Integrative Behavioral Ecology	3
AGCOM 400	Agricultural Business Communications	3
STAT 340	Biometrics I	3
PLPTH 610	Biotechnology	3

Year 3: Spring

Course #	Course Name	SCH (15)
ENTOM 710	Insect Taxonomy	3
ENTOM 645	Introduction to Insect Chemical Ecology	3
ENTOM 660	Insect Genetics	3
STAT 341	Biometrics II	3
ANTH 200	Introduction to Cultural Anthropology	3

Year 4: Fall

Course #	Course Name	SCH (15)
ENTOM 649	Introduction to Arthropod Vectors of Human Pathogens	3
ENTOM 692	Insect Ecology	3
STAT 703	Introduction to Statistical Methods for the Sciences	3
GEOG 200	Human Geography	3
GENAG 225	Fundamentals of Global Food Systems Leadership	3

Year 4: Spring

Course #	Course Name	SCH (15)
ENTOM 302	Art and Insects	3
ENTOM 675	Introduction to Insect Physiology	4
ETNOM 695	Capstone Experience	3
ENGL 270	American Literature	3
MUSIC 160	Music Listening Laboratory	2

Total Number of Semester Credit Hours   …………………………………………………… **120**

VIII. CORE FACULTY

Note: * Next to Faculty Name Denotes Director of the Program, if applicable
FTE: 1.0 FTE = Full-Time Equivalency Devoted to Program

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization	FTE to Proposed Program
Jeremy Marshall*	Associate Professor	PhD	Y	Evolutionary biology and genetics (including population genetics, genomics, proteomics, and functional genetics using RNAi) in relation to reproductive biology, sexual conflict, life-history strategies, behavioral	0.4

				and ecological phenotypes, and cricket biology	
Tania Kim	Assistant Professor	PhD	Y	Insect ecology; landscape ecology; plant-insect interactions; conservation; integrated pest management	0.2
Cassandra Olds	Assistant Professor	PhD	Y	Veterinary entomology; livestock entomology; vector biology; vector-borne pathogen transmission; immunological control of vector-borne pathogens; vector competence; developing novel arthropod management strategies	0.1
Yoonseong Park	Professor	PhD	Y	Insect physiology; insect hormones; insect neuropeptides and neuropeptide receptors; transgenic insects	0.1
Tom Phillips	Professor	PhD	Y	Stored-product insects; chemical ecology; pesticide alternatives; integrated pest management	0.2
Kris Silver	Research Associate Professor	PhD	N	Insect toxicology and molecular mechanisms of insecticide activity; mechanisms of RNA interference and enhancing RNAi responses; insecticide resistance and detoxification	0.1
Kun Yan Zhu	University Distinguished Professor	PhD	Y	Mechanisms and application of RNA interference in insects; chitin biosynthesis; modifications and metabolism in insects; biochemical and molecular basis of insecticide resistance	0.1
Greg Zolnerowich	Professor	PhD	Y	Systematics and phylogenetics of parasitic Hymenoptera, and systematics in support of biological control; general insect identification; curator of Museum of Entomology and Prairie Arthropod Research	0.4
Brian McCornack	Professor and Head	PhD	Y	Field-crop pest management; integrated pest management tactics; sampling; invasive	0.2

				species; insect population dynamics; remote sensing and site-specific strategies; plant-insect interactions; web-based decision support systems	

Number of graduate assistants assigned to this program **………………………………………… [3-4 partial GTA, remaining portions of student positions supported by GRA, extramural funds]**

IX. Expenditure and Funding Sources *(List amounts in dollars. Provide explanations as necessary.)*

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty	$0	$0	$0
Administrators *(other than instruction time)*	$0	$0	$0
Graduate Assistants	$0	$0	$0
Support Staff for Administration	$0	$0	$0
Fringe Benefits *(total for all groups)*	$0	$0	$0
Other Personnel Costs	$0	$0	$0
Total Existing Personnel Costs – Reassigned or Existing	$0	$0	$0
Personnel – New Positions			
Faculty (0.4 FTE by Year 3, state funds)	$0	$0	$36,000
Administrators *(other than instruction time)*	$0	$0	$0
Student Assistants (UG)	$0	$0	$0
Support Staff for Administration (*i.e., Student Success Coordinator, Years 1-2 funded by restricted fees, Year 3 onward funded through RCM and COA support*)	$30,000	$30,000	$30,000
Fringe Benefits *(total for all groups)*	$9,000	$9,000	$20,520
Other Personnel Costs	$0	$0	$0
Total New Personnel Costs – New Positions	$39,000	$39,000	$86,520
Start-up Costs - One-Time Expenses			
Library/learning resources	$0	$0	$0
Equipment/Technology	$0	$0	$0

	First FY	Second FY	Third FY
Physical Facilities: Construction or Renovation	$0	$0	$0
Other	$0	$0	$0
Total Start-up Costs	$0	$0	$0
Operating Costs – Recurring Expenses			
Supplies/Expenses	$6,500	$7,500	$8,500
Library/learning resources	$0	$0	$0
Equipment/Technology	$0	$2,000	$2,000
Travel	$0	$0	$0
Other	$0	$0	$0
Total Operating Costs	$6,500	$9,500	$10,500
GRAND TOTAL COSTS	$45,500	$48,500	$97,020

B. FUNDING SOURCES *(projected as appropriate)*	Current	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds		$94,890	$208,758	$341,604
Student Fees		$6,089	$13,392	$21,910
Other Sources		$0	$0	$0
GRAND TOTAL FUNDING		$100,979	$222,150	$363,514
C. Projected Surplus/Deficit (+/-) (Grand Total Funding *minus* Grand Total Costs)		$55,479	$173,650	$266,494

X. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

All ENTOM course offerings, including the new 400-level experience-based courses, are offered as part of current appointments – thus, no new funds are needed to cover the costs of teaching. Entomology has 13 faculty

with various research, extension, and teaching responsibilities that adequately cover our diverse discipline. In addition, we have 11 adjunct faculty from the Agricultural Research Services (ARS) within the United States Department of Agriculture (USDA) and the National Bio and Agro-Defense Facility (NBAF) within Manhattan and within our own laboratories. Several scientists from these outside labs engage with our teaching faculty to provide students with unique learning and training opportunities. All faculty teaching core and specialization courses are employed by Kansas State University in the College of Agriculture.

Personnel – New Positions

We request funds to support half of a full-time, student success coordinator position. Half of the position will be paid from existing state-funds. The second half of this position will be supported using restricted fees and other soft funds. The student success coordinator will be a student facing position that is readily available to students, will help organize and facilitate a departmental orientation & enrollment course, strategize ways to increase student recruitment (i.e., scheduling prospective student visits, recruitment visits on campus, communicating with high schools/community colleges, etc.), help advise incoming students, review degree plan inconsistencies, work with the College of Agriculture Student Records Office as needed, connect students to appropriate offices and/or resources, and general program administration (i.e., making changes to line scheduling, annually updating departmental lists, pulling basic reports for faculty and departmental administration, and clearing minors for graduation). This position will free up time for faculty to focus on student success within the new program.

We anticipate the addition of new teaching tenths by year three. Our largest demographic of students in our minors program come from Animal Science and Industry within the College of Agriculture. Based on program growth in this area, we plan to hire a 40% teaching faculty to handle part of the academic advising workload, as well as develop new courses in forensic entomology and vector biology.

Start-up Costs – One-Time Expenses

There are no funds needed to start this program. Technology in teaching labs and collaborative learning spaces were upgraded using Strengthening People and Revitalizing Kansas (SPARK) funds; all spaces have the capability of delivering distance-education courses and/or recording lecture/labs.

Operating Costs – Recurring Expenses

Lab and teaching computers and supporting technology will periodically require upgrades starting in year two (estimated cost $2,000 per year). We also require funds for supplies/expenses associated with office materials, instruction, IT support, and promotion and marketing activities ($5,000 per year). In addition, we anticipate offering more undergraduate research experiences and capstone projects and this will require supplies for experiments (reagents, lab-based components), printing services for posters presented in symposiums ($1,000 in year one, increasing by $1,000 per year). We will also need to cover the cost of greenhouse and plot fees that are used in several courses offered in Entomology ($500 per year).

B. Revenue: Funding Sources

The revenue table below uses the in-state, on-campus tuition rate of $316.30 per credit hour. It assumes, based on the example curriculum, that 52.5% of all semester credit hours (SCH) are generated by the College of Agriculture (COA) and 47.5% are generated by the College of Arts and Sciences (COAS). COA has a general fee of $22.90 per credit hour for on-campus courses, while the COAS has a general fee of $17.40 per credit hour. All funds generated by fees will be retained by the generating college.

Tuition & Fees	Tuition per SCH	YR 1 SCH	Sub- Totals	YR 2 SCH	Sub- Totals	YR 3 SCH	Sub- Totals
In-State On-Campus Tuition	$316.30	300	$94,890	660	$208,758	1,080	$341,604
College of Agriculture Fees	$22.90	158	$3,618	347	$7,946	567	$12,984
College of Arts & Sciences Fees	$17.40	142	$2,471	313	$5,446	513	$8,926
Total University Revenue			**$100,979**		**$222,150**		**$363,514**

C. Projected Surplus/Deficit

Our budget estimate projects a budget surplus of $55,479 in Year 1, with a projected surplus of $266,494 by Year 3. Of these surplus funds, 75% of tuition dollars and 100% of College of Agriculture fees are retained by the College of Agriculture: Year 1 = $41,609; Year 2 = $130,238; and Year 3 = $199,871. Projected surpluses are sufficient to cover any personnel and program resources needed to maintain and grow the program with no added resources from the University.

XI. References

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