



Program Review

*Information Systems
2016 to 2017*

A. Summary of Program Review

The Bachelor of Science in Information Systems program is designed to prepare students to enter the rapidly expanding areas associated with information systems including programming, systems analysis and design, database administration, network management, and management of information systems and resources.

The curriculum combines technical content with managerial aspects of information systems and is grounded in the liberal arts, enabling students to master the skills in critical thinking, analysis, and communication that they need to successfully address complex challenges in their work.

Antidotally, Donnelly is aware of graduates' employment track through personal relationships that exists with various staff. There is not one single employer of graduates as there are in other programs.

B. Key Findings

Several of the key courses in the program had not been updated in curriculum exercises and assignments as well as text books. The program will shift in the 2017-18 academic year to focus on more Information System courses from the Information Technology courses that have been part of the degree program.

Additionally, the IS Capstone course was originally designed and delivered as two separate semester long courses. The feedback from students was to revamp the course to offer a more cohesive flowing course that combined the two courses into one and allowed for more focus while permitting students to understand the culmination of their learning.

C. Suggested Changes

Initiate a job search starting in May 2017 to hire a full-time department chair to oversee and manage the day to day functions. Currently these responsibilities are being managed by the Vice President of Academic and Student Affairs. The program will benefit from day to day oversight that a standing position can offer. This will also allow the alignment of this program to other like type programs or departments in the College (i.e., Nursing and Education).

The new role will be the Chair of Business and Technology Departments with a start date of August 2017...see job description below:

Job Summary: The position of Chairperson, Business and Technology Programs is responsible for coordinating functions of the Organizational Leadership (OL) and Information Systems (IS) degree programs. This role will have oversight of the program including course development, enhancement and delivery. The Chair will work with the VP of Academic and Student Affairs to evaluate existing faculty both full-time and adjunct as well as identify new adjunct faculty to deliver instruction in the program.

Continue to review courses in the Organizational Leadership program. Explore opportunities to add additional courses to the program that can serve to round out electives or other means in supporting the students' persistence towards graduation.

D. Implementation Plan

Participate in on-going academic workshops offered by Donnelly to understand the processes and procedures to enhance the IS program. Examine and review best practices and best in class programs that are like type to ensure quality service delivery. Work with advising to identify gaps in course offerings that can lead to delays in degree completion for students in the IS program.

Section 1 – Program Overview

A. Program Mission Statement

Preparing students through training that allows success in the workplace, as well as a developed ability to apply theories and concepts to an information systems-centered work environment.

B. Institutional Learning Outcomes

Donnelly College has consistently maintained a strong commitment to the liberal arts and sciences as a foundation for a complete education. The faculty strongly believes that the liberal arts and sciences provide the context through which students can engage with the larger questions about students' place in the world and their pursuit of truth. Therefore, the College's general education requirements are designed to ensure that liberal arts and sciences graduates develop a breadth of content knowledge and the skills and abilities which will enable them to become educated participants in a diverse global community.

Donnelly College Learning Outcomes:

1. **Communication Skills:** Students will communicate effectively in writing and speaking.
2. **Technology and Information Literacy Skills:** Students will demonstrate proficiency in information literacy skills.
3. **Symbolic Problem Solving:** Students will demonstrate competency in qualitative and quantitative problem solving.
4. **Analytical Thinking:** Students will employ reflective thinking to evaluate diverse ideas in the search for truth.
5. **Personal and Interpersonal Skills:** Students will develop an understanding across cultural differences locally, nationally, and internationally.
6. **Academic Inquiry:** Students will engage independently and effectively in lifelong learning.
7. **Values:** Students will demonstrate moral and ethical behavior in keeping with our Catholic identity.

C. Program Learning Outcomes

In addition to the general education learning outcomes-communication skills, technology and information literacy skills, symbolic problem solving, analytical thinking, personal and interpersonal skills, academic inquiry, and values-upon successful completion of the Bachelor of Science – Information Systems program, the student should be able to demonstrate:

1. The student will demonstrate an ability to communicate effectively on multidisciplinary teams with a wide range of people.
2. The student will demonstrate an ability to use the techniques, skills, and modern computing tools necessary for technological practice.
3. The student will demonstrate an aptitude to analyze qualitative and quantitative data to make informed decisions.

4. The student will demonstrate an ability to design a system, component, or process to meet desired needs within realistic constraints.
5. The student will demonstrate the capacity to function effectively on teams that understand the impact technology has in a global, economic, environmental, and societal context.
6. The student will demonstrate a recognition of the need for, and an ability to engage in life-long learning through a continuous investigation of contemporary issues.
7. The student will demonstrate the capacity to make informed decisions in computing practice based on an understanding of professional, legal, and ethical responsibilities.

D. Student Learning Outcomes

IS 499 - CAPSTONE

1. Students will demonstrate an ability to show mastery of their decision-making process using applicable computing theories/methods.
2. Students will demonstrate an ability to articulate and apply technical skills.
3. Students will demonstrate an ability to show compassion and care for others that might not otherwise be served.
4. Students will demonstrate an ability to complete a capstone project through an oral and written presentation.

E. Curriculum

Description Baccalaureate degrees granted by Donnelly College must adhere to the following provisions and degree requirements, as described below. These represent minimum degree requirements, and there may be variations that exceed these requirements unique to specific programs.

1. Completion of a general education curriculum leading to an Associate of Arts or Associate of Science in Information Technology or a related field.
2. Completion of required coursework with a cumulative GPA of 2.0 or higher.
3. Completion of at least 42 credit hours of concentration courses with a grade of C or better.
4. Completion of at least 120 college-level credit hours.
5. Completion of at least 45 upper-division credit hours.
6. Completion of the last 30 credit hours at Donnelly College.
7. Satisfactory completion of a Mathematics course with MT 103 – Intermediate Algebra as its prerequisite.
8. Satisfactory completion of two Science courses with a laboratory, or the completion of two Mathematics courses with MT 103 – Intermediate Algebra as a prerequisite, or the completion of two computer programming language courses.
9. Satisfactory completion of an upper-division Religion course.

MAPPING OF COURSES TO DCLOs and PLOs:

DCLO	IS PLOs	IS303	IS 304	IS 305	IS 310	IS 311	IS 315	IS 325	IS 401	IS 410	IS 415	IS 417	IS 499
Communication Skills: Students will communicate effectively in writing and speaking.	Ability to communicate effectively on multidisciplinary teams with a wide range of people.	X	X	X	X	X	X		X	X	X		X
Technology and Information Literacy Skills: Students will demonstrate proficiency in information literacy skills.	Ability to use the techniques, skills, and modern computing tools necessary for technological practice.	X	X	X	X	X	X	X	X	X	X	X	X
Symbolic Problem Solving: Students will demonstrate competency in qualitative and quantitative problem solving.	Aptitude to analyze qualitative and quantitative data to make informed decisions.		X	X					X	X			X
Analytical Thinking: Students will employ reflective thinking to evaluate diverse ideas in the search for truth.	Ability to design a system, component, or process to meet desired needs within realistic constraints.	X	X	X	X	X	X	X	X	X	X	X	X
Personal and Interpersonal Skills: Students will develop an understanding across cultural differences locally, nationally, and internationally.	Capacity to function effectively on teams that understand the impact technology has in a global, economic, environmental, and societal context.		X	X					X	X			X
Academic Inquiry: Students will engage independently and effectively in lifelong learning.	Recognition of the need for, and an ability to engage in life-long learning through a continuous investigation of contemporary issues.								X	X	X	X	X
Values: Students will demonstrate moral and ethical behavior in keeping with our Catholic identity	Capacity to make informed decisions in computing practice based on an understanding of professional, legal, and ethical responsibilities.	X	X	X	X	X	X	X	X	X	X	X	X

F. Program Accreditation at this time the Information Systems program is not individually accredited, however, in the future the program could seek accreditation through the Computing Accreditation Commission of ABET, <http://www.abet.org>.

ABET accreditation provides assurance that a college or university program meets the quality standards of the profession for which that program prepares graduates.

ABET only accredits programs, not institutions. ABET provides specialized accreditation for post-secondary programs within degree-granting institutions already recognized by national or regional institutional accreditation agencies or national education authorities worldwide.

The ABET accreditation is voluntary, and to date, over 3,800 programs at more than 770 colleges and universities in 31 countries have received ABET accreditation. Approximately 85,000 students graduate from ABET-accredited programs each year, and millions of graduates have received degrees from ABET-accredited programs since 1932.

G. Collaboration/Agreements

Donnelly College has articulation agreements established with community colleges to accept credits toward the bachelor's degree programs. The Registrar will conduct an in-depth credit evaluation on courses taken at other regionally accredited institutions. A minimum grade of a C is required to fulfill a Donnelly College academic requirement.

H. Faculty & Staff Resources

Academic files, together with curriculum vitae for each faculty member, are kept in the Offices of the Dean of the College and are regularly reviewed.

Faculty Members

Cicely Bledsoe

B.A. Communication, Newman University

M.S. Human Resource Management, Grantham University

Dong Do

B.S. Electronics Engineering Technology, DeVry University

Jaime Fuentes

A.A., Donnelly College

B.S. Management/Comp Info Sys, Park University
M.Ed. Educational Technology, MidAmerica Nazarene University

Cheryl L. Hicks

B.S., Arkansas State University
M.A., Midwestern Baptist Theological Seminary

Pedro Leite, Vice President of Academics and Dean of the College

B.S., Pontifical Catholic University of Campinas
M.S. Management, Friends University
M.M.I.S. Management Information Systems, Friends University
Ed.S. Community College & Higher Education, Pittsburg State University

Michael Megaris

B.B.A Business Administration, University of Missouri-Kansas City
M.B.A Business Administration, University of Missouri-Kansas City

Tim Murrell

Doctor of Education (Ed.D.), Educational Leadership, Maryville University, St. Louis,
MO
Master of Arts, Educational Leadership, St. Louis University, St. Louis, MO
Master of Arts, Administration of Justice and Human Relations, Webster Univ, St. Louis,
MO
Bachelor of Science, Liberal Studies, University of the State of New York, Albany, NY

William Periman

B.A. Computer Information Systems, Butler University
M.S. Engineering Management, Southern Methodist University
PhD., Oklahoma State University

William Smith

B.S. Mechanical Engineering, University of Kansas
M.S. Engineering Management, University of Kansas

Ana M. Valdez

BSBA, Finance, Rockhurst University
M.B.A Business Administration, Avila University, Kansas City, MO
Doctor of Education (Ed.D.), Educational Leadership (in process), St. Louis Univ, St.
Louis, MO

Faculty Credentials

Information Systems

Course #	Course Title	Minimum Qualifications
IS 303	Essentials of Management Information Systems	Master's degree in computer information systems or a master's degree with at least 18 graduate credit hours in any combination of the following qualifying fields: <ul style="list-style-type: none"> • Computer Engineering • Computer Science • Computer-based Information Systems (e.g., Management, Decision Sciences) • Information Technology • Management Information Systems • Networking Services • Software Engineering • Engineering programs with appropriate Computer Science or Computer Programming coursework. Demonstrated competencies in the teaching discipline or industry recognized certification may substitute for academic preparation.
IS 304	Disaster Recovery and Business Continuity	
IS 305	Information Security Management	
IS 310	Advanced Network and Telecommunication	
IS 311	Information Systems Project Management	
IS 315	Object-Oriented Programming	
IS 325	Advanced Database (Oracle)	
IS 401	Cryptography & Net Security Fundamentals	
IS 402	Cloud Computing	
IS 403	Cybercrime	
IS 405	Senior Integrative Experience I (Planning)	
IS 406	Senior Integrative Experience II (Implementation)	
IS 410	Business Analytics	
IS 415	Enterprise Software Installation & Maintenance	
IS 417	Server Virtualization	
IS 420	Topics in Information Systems	
IS 499	Organizational Leadership CAPSTONE: An Academic Senior Level Integrative Experience	

I. Teaching Loads

In the 2016-2017 Academic Year our faculty teaching loads in the Bachelor of Science in Information Systems program were made up of 40% Adjunct Faculty, 50% Full-time Faculty, and 10% Administration with teaching roles.

J. Scholarly Activities

Bill Periman, PhD is the Senior Vice President of Technology Services at Waddell & Reed, located in Shawnee Mission, KS, since February 2012. His main functions include the redefining of the Solutions Delivery Organization, comprised of development, data, and architecture teams. The roadmap includes maturation of agile processes, implementation of DevOps, and an enterprise data strategy.

Tim Murrell, EdD is the Program Coordinator for the Kansas City Kansas Public School District Career and Technical Education (CTE) and a Member of the KCKS School District Diploma+© Team. He is responsible for 13 Career and Technical Education Programs and 65 CTE teachers. Dr. Murrell represents the KCKPS District on the Workforce Committee of the Wyandotte County Economic Development Council. He also represents the KCKPS District on the Kansas City Regional EcosySTEM Committee.

Ana Valdez participated in the Society of Hispanic Professional Engineers (SHPE) conference, November 2017 which was held in Kansas City, MO. The SHPE conference included a track for STEM students to participate and network with various business entities and corporations to learn more about the growing field. Ana mentored nine baccalaureate students who participated in this conference.

Section 2 – Student Success

A. Enrollment and Recruitment Data

Indicators	Academic Year						Trend
	16-17	17-18	18-19	19-20	20-21	21-22	
Recruitment							
Goal							
Actual							
Enrollment							
Goal							
Actual	29	25					

In examining the actual numbers for Enrollment, it was identified that the baccalaureate programs are not broken down between all of the programs (OL, IS, and Education). Therefore, without an accurate census the numbers listed in actual are potentially over stating the number of students in the BSIS program.

After review of the Recruitment strategy for the AY 2016-17 it was identified that there was not a specific strategy or tactics related to the recruitment of students for this program. There are initiatives associated with the recruitment and enrollment in the strategic plan. Therefore, without viable tactics no accounting of recruitment for this program exclusively can be obtained at this time. Moving forward the Interim Director of Recruitment is investigating tactics and tracking of performance related to the program.

In related conversations with the Interim Director of Recruitment a viable strategy was identified and will be presented to the team and the VP of Academic Affairs and Student Activities.

B. Graduation

Indicators	Academic Year						Trend
	16-17	17-18	18-19	19-20	20-21	21-22	
GRADUATES							
Goal	3	7	10				
Actual	3	7					

The numbers of graduates from the BSIS program has declined over the past three to five years corresponding to the decline in recruitment and enrollment. The department chair has

discussed with the Interim Director of Recruitment to identify strategies and tactics that might aid in an increase of students for the program.

Additionally, the program will have to improve course offerings on a stable rotation to assist with timely graduation pathways for students.

C. Placement

Indicators	Academic Year						Trend
	16-17	17-18	18-19	19-20	20-21	21-22	
CAREER PLACEMENTS							
Goal	2	4	4	4	4	4	
Actual	UNK						

As stated earlier in the program overview insufficient tracking has made it difficult to know exactly where students are working post-graduation.

Section 3 – Satisfaction Surveys

A. Students

Course Evaluations are open to all students registered in a course at least four weeks before the end of the term. Evaluations are completed online and are anonymous to faculty and staff. They consist of 26 statements and questions which ask the students to rank on various scales. Of the students who took courses from the IT or IS department in 2016-2017 we had 65 respondents. 75% of those evaluations were in response to the Donnelly Core requirement IT 111 Microcomputer Essentials.

When asked the following questions, “How the instructor held the attention of the course, How well-prepared the instructor was; If the instructor used examples to explain difficult ideas; If the instructor gave student’s ample opportunity to ask questions; If the instructor provided feedback to help in improvement; If they cared about student success; Reviewed information in a way that helped me remember; Made comments on tests or homework to help me improve; Sensed when an idea or concept was not understood; Introduced stimulating ideas about the subject; If the instructor was enthusiastic about the subject; If the instructor used challenging vocabulary; If the instructor provided assistance outside of class, and If the instructor explained course requirements and expectations.” The responses were as follows: 84% of the students surveyed answered always or usually, 11% of the students surveyed answered sometimes, rarely, or never, 5% of the students surveyed answered they could not judge.

Students were asked to rate the course on a scale of too hard, rather hard, about right, rather easier, too easier, or cannot judge. On these questions 24% answered it was too hard or rather hard, 60% answered it was just right, 14% answered it was rather easy or too easy, and 2% answered they could not judge. Of the respondents 81.8% stated they would recommend using the same textbook and 63.6% said they would like to see more technology used in their course. 24% of students surveyed answered too hard or rather hard.

When asked if they would recommend the same textbook 72% of students said yes, 11% said no, and 17% said they could not judge. When asked if they would like to see more technology in their course 48% said yes, 26% said no, and 26% said they could not judge.

Finally, when asked if the student was “satisfied with how much they learned; If they took responsibility for their own learning in the course; If their interest in the subject increased as a result of the course; If they would like to take another course from the instructor; If they

had enough background to handle the work required for the course, and If they had a strong desire to take the course before enrolling,” 71% of students answered these statements were definitely or mostly true, 21% were neutral, and 7% answered this was mostly or definitely false.

B. Alumni

In the academic year of 2016-17 Alumni were not tracked. Going forward a new process will be implemented to stay connected to Alumni.

C. Advisory Board

The Information Systems program has a very active Advisory Board; made up of professional from across the industry spectrum. Several of the members have been strong advocates of students in creating and offering internships, advice on career paths, and serving as adjuncts in a variety of positions at the College.

D. Employers

Donnelly College currently has two Information Systems graduates employed in the IT department.

Cerner has one graduate working at their location in North Kansas City.

Section 4 – Financial Information

A. Financial Data

Indicators	Academic Year						Trend
	16-17	17-18	18-19	19-20	20-21	21-22	
Headcount	14						
Total credit hours (TCH)	186						
Revenue (TCH * tuition/fees)	51,150						
Estimated expenses	\$10,751						
Approximate profit/loss (c - d)	\$40,399						

B. Grants

There is a Title V grant that supported the development of courses and equipment needed for the implementation of the program. The funding through this Title V grant for the BSIS program will end fall of 2018.

BSIS Program Coordinator is budgeted at 100% for Year One through Year Four. BSIS adjunct faculty positions for course pilots are covered for Year Two through Year Four. BSIS program tutors are covered for Year Two for Year Four.

In addition to the personnel budget, the grant was budgeted for \$52,131 for classroom setup in Year One with \$87,375 budgeted for supplies and equipment.

Section 5 – Recruitment and Retention

A. Recruitment and Retention Plan

Retention	AY16-17	AY17-18	AY18-19	AY19-20	AY20-21	AY21-22	Trend
Goal							
Actual							

There were no designated recruitment and retention goals for the BSIS program.

Section 6 – Assessment of Student Learning Outcomes

DCLO: Students will communicate effectively in writing and speaking.

PLO: The student will demonstrate an ability to communicate effectively on multidisciplinary teams with a wide range of people.

SLO: Students will demonstrate an ability to complete a Capstone project through an oral and written presentation.

Method of Assessment: Students will synthesize information in a final written and oral presentation

Measures/Levels of Expectations: Students will select an initiative that will consist of a research subject, project management, or an internship. The students will work with the instructor to connect with community organizations or companies for internships as well as information or resources for research or project efforts. All students will report on findings and impacts of their initiative.

Assessment Results: Due to the small student population, aggregation of data is ongoing and will be reported once statistically viable sample sizes are gathered.

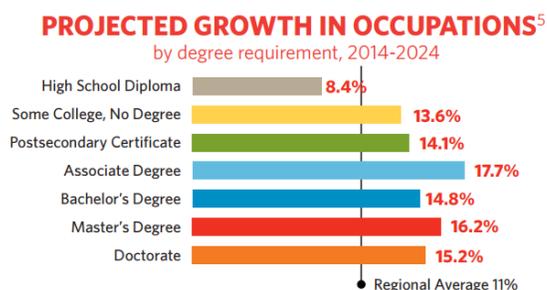
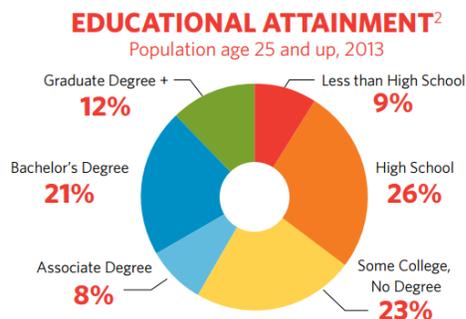
Use of Results for Program Improvement

This is a revised course curriculum that will allow students to complete the planning, implementation, and reporting phases in one semester. The change or revisions that occurred stemmed from students' feedback of two previous courses that existed, IS 405 & IS 406.

Section 7 – External Demand

In 2013, Greater Kansas City had 109,662 total enrollments among 82 postsecondary institutions in the region. By 2016, Greater Kansas City will reach 117,384 enrollments, an increase of 4,396 enrollments over three years. In addition to enrollment, key measures of the region’s success in educating its future workforce include retention — the percent of students who stay enrolled rather than dropping out; persistence — the percentage of students who complete the degree or certification for which they enrolled; and overall attainment — the percent of the total regional population age 25 or older who have earned an associate degree or higher. Demand for workers with some type of postsecondary credential continues to grow among local businesses. Postsecondary attainment that leads to employment in high-demand fields is critical to regional economic prosperity.

Over the next 10 years, jobs that require postsecondary educational attainment are expected to grow more rapidly than those that do not, but today more than half of the region’s adults do not have any degree. Among those that do, more have bachelor’s than other degrees. The strongest job growth is expected in occupations that require associate or graduate/postgraduate degrees. Projected job growth for the top five fastest-growing occupations in each of six key industries are listed in the following tables. These industry sectors — finance, computers, architecture and engineering, life sciences, logistics, and heavy manufacturing — are those in which the Kansas City region specializes. Meeting employer demand for a skilled workforce in these industries will have a positive impact on the Kansas City region’s economy. Many of the top growing occupations listed below — and others not included in the top five — are growing not only within the industry sector shown, but across all industry sectors. Educational requirements vary, with a strong correlation between education and hourly pay. While these statistical projections are helpful in understanding where Kansas City’s job growth may occur, they do not include future expansion projects, such as Cerner’s announced plans to hire 15,000 workers over the next 10 years or other as yet unknown expansions that may impact occupation and industry growth in the region.



Section 8 – Summary of Program Accomplishments and Future Challenges

The search and hiring of a Program Chair was completed in June 2017. The person hired was Ana Valdez who started in the academic year 2017-18. The new Program Chair will have to responsibility for transformational change of the Information Systems Program as it aligns all courses, assessment, and strategic goals with those of the College.

Continuous improvement of course delivery and content is the challenge going forward to ensure the quality of the program's standing within the community.

Students that graduated in AY 16-17 achieved the following

- PTK -
- First Generation -
- Employed full time upon graduation