All three departments continue to offer a number of classes online. The College offered 30% of its courses online, and 27% of all student credit hours in the COI were earned online, which is higher than the 20%, the 2014-2105 reported percentage for all NKU. The number of distinct online sections we offered this year was slightly higher than the year before: 216 for 2015-2016, compared to 207 for 2014-15. (The latter figure was stated erroneously in last year's report.)

There was a slight increase sections to 30, with 22 of the classes being PACE and the remainder graduate courses. The hybrid model for the graduate courses are in the Communication department and requires students to be on campus only every other week.

Two different classes (INF 101 and CSC 364) were taught using project-based teams in spring 2016 to address large class sizes. The two faculty members were coached by Biology faculty members (Strome and Bowling) on effective practices in the classroom. The initial assessments of DFW rates and grade distributions were comparable to smaller-size classes offered previously. We hope with more experience, the DFW rates will drop with this approach.

The CS department chair and MSCS director worked with Dr. Samantha Langley to try to address low enrollments in the MSCS program. They researched the Professional Science Masters (PSM) program and worked with a multi-college team to develop a proposal. Currently the PSM proposal is being reviewed with focus groups coordinated by the Center for Economic Analysis and Development.

529.01 Y1-Y2: Expand the different course delivery offerings (e.g., online, hybrid, flipped, summer, weekend) while maintaining program integrity.

529.02 Y2: Departments and Dean’s Office, working with VPs, will develop a structured department evaluation to determine program capacity, strategies for programs whose enrollments are trending toward exceeding capacity and programs whose enrollments are declining to the point of unsustainability.

529.03 Y3: Departments will do structured annual evaluation of program capacity, identifying strategies for programs whose enrollments are trending toward exceeding capacity and programs whose enrollments are declining to the point of unsustainability.
2015-16 Progress Narrative

An initial set of learning objectives defined by the COI Core Knowledge Committee for all COI degrees were reviewed by the COI faculty and staff. The Committee will develop a matrix to evaluate where the degree programs are currently with respect to the learning objectives, where content understanding level will be defined using Bloom’s Taxonomy.

The Core Knowledge committee began exploring an Informatics Capstone. Many of the committee are participating in a pilot test to see how addressing an OpenIDEO challenge might be integrated into a capstone in order to provide transdisciplinary experiential learning. The committee will review and recommend a capstone during the 2016-2017 academic year.

The Data Science program was held mostly constant during 2015-2016 after significant changes the previous year. However, a practicum course was added for DS majors, and the prerequisite of DSC 101 was removed to support more students exploring the major, as well as the topic of Big Data. The faculty and CS chair will revisit the curriculum, focusing on aligning it with minors/majors in related areas during 2016-2017.

A BS in Health Informatics was developed, its pre-proposal approved by the CPE in the spring. Its full proposal is being finalized. The BA in Health Communication pre-proposal was worked on in the Communication Department 2015-2016. Dr. Gary Ozanich was also named Associate Director of the Health Innovations Center effective July 1, 2016.

530.01 Y1: Review the set of INF-designated courses and establish a common set of learner outcomes for all COI graduates.
530.02 Y3: Scale up the transdisciplinary INF 128 Principles of Informatics course so that it will have sufficient sections available to be a required course in at least three of the undergraduate COI majors.
530.03 Y2: Develop an Informatics Common Capstone.
530.04 Continuously evaluate and improve transdisciplinarity and its impact in the Data Science program.
530.05 Y2-Y4: Develop new transdisciplinary programs in conjunction with the Health Innovations Center, including the expansion of the Health Informatics program into the undergraduate level.
530.06 Y3: Perform a need’s assessment for an MA in Informatics.
Experiential Learning continued to be a focus in the COI during 2015-2016. Courses were created for monitoring student experiences, with enrollment in 16 unduplicated co-op/internship courses during 2015-2016. The number of co-ops and internships was down slightly this past year, with 176 recorded experiences versus 185 the previous year. This is partially due to funding cuts and lack of backlog at the Center of Applied Informatics (CAI) and required the elimination of student positions. We will continue to monitor the enrollment to determine if this is a trend or not next year.

The CAI went through major changes this past year. Tim Ferguson was asked to step down as its part-time director to allow him to focus on the Information Technology department. Jill Henry was hired in April, 2016 as full-time Director of the CAI and brings with her significant industry IT experience. She has been working, and will continue to work with her team, to redefine the CAI within the current budget constraints. In particular, the budget cuts in 2015-16 required the elimination of the associate director position. The lack of backlog also required the elimination of two CAI project manager positions.

The CAI has been developing a new model for integrating faculty, called a faculty liaison, and will provide expertise to help develop opportunities for non-tech students. Brad Metzger, hired last year, will serve in this role for Business Informatics. The CS and Communication department will try to identify interested faculty for the fall.

The CAI, through advancement, received a gift of $525,000 to run a three year Student Apprentice program. The students in this program will typically not be ready for CAI student employment, but have potential. They will work on non-profit projects and apprentice with more experienced CAI students. The details of the program are still being finalized at this time, but plans to roll out in FY 16-17.

In summary:

- **Chair's Report**
  - 531.01 Increase the variety of projects run and managed by the CAI, annually
  - 531.02 Working with community partners, include experiential learning in class projects and highlight the results.

**Community Engagement**
2015-16 Progress Narrative

In 2015-2016 the COI made changes to K-12 outreach to improve both the quality and visibility of their offerings. The number of summer camps remained at three: Journalism Camp, Cybersecurity and Mobile Development to meet this objective. The Cybersecurity camp was co-sponsored by Nexigen and targeted students from Newport High School, historically a school with high economic need. The COI continues to support the INTERalliance Tech Camps and First Lego League. To increase visibility with more regional students, CS faculty scheduled two Saturday Security Workshops for high school students through INTERalliance. Both workshops were very well-received and plans are underway to continue with them this year.

The COI also hosted two different high school teacher development courses. We continued hosting the Kentucky Department of Education (KDE) Informatics SREB training. The other teacher development is a course to prepare high school teachers to teach classes for the new Computer Science AP exam being released this year. The CS Principles Course was developed with funds from the NSF and attempts to recruit more diverse students into technology majors. NKU and AdvanceKentucky teamed up to bring in an approved class, The Beauty and Joy of Computing, for training in July. We have an agreement for next year too.

The Director of the Center of Information Security visited with multiple universities and industries to build connections and opportunities for our center and students. The Director is teaming up with Bluegrass Community and Technical College on a proposal for cybersecurity education. The Director has not met with success teaming up with the Cybersecurity Consortium of Southwest Ohio nor with UC for the security symposium.

The Dean's Advisory Board provided feedback this year on the Professional Science Masters, ideas on building connections and has been helpful in planning our 10th anniversary event. We will continue to work with the board to benefit the college.

532.01 Increase Center of Applied informatics partners in technology and data science, ongoing
532.02 Y2-Y3: Improve quality and visibility of K-12 outreach efforts
532.03 Y2: Collaborations between industry, other universities, and the Center for Information Security
532.04 Y1-Y2: Improve the engagement of the Dean's Advisory Board with college activities
Increase visibility of COI community engagement activities

2015-16 Progress Narrative

In 2015-2016, the Dean met with MARCOMM's marketing liaison, the Associate Dean, COI Advancement Director and the COI Events/Media Coordinator weekly to review all external communications. This worked very well, including a new web design, targeted program advertisements on Facebook and basic marketing materials.

The Dean's office spent $4,698.40 to advertise programs with enrollment concerns through social media. Working with MARCOMM, Facebook advertisements were bachelor degrees in Data Science and Journalism as well, masters in Health Informatics Communication and Computer Science. A small amount, $100, was spent to advertise the Journalism camp.

This past year there were 40+ externally disseminated stories about the COI. These included WVXU "Around Cincinnati" pieces, two television news stories and multiple print/web stories by external journalists. This is a significant increase to last year, and demonstrates the successful collaboration between MARCOMM and the COI.

533.01  Y1: Develop procedure for recording advertising, news, and other external communication modalities for the COI
533.02  Y2-Y3: Increase the number of articles, mentions and news pieces about the COI

Institutional Excellence

Steward resources wisely and efficiently to achieve goals.

2015-16 Progress Narrative

The COI has begun working with RCM data in planning and organizing, both for staff/faculty positions and for course offerings. Due to budget cuts, changes are underway in the chair suite to redefine staff support positions. The changes are planned to improve efficiency while offering staff career progression positions within the college.

Total giving to the COI in 2015-2016 was $259,328.28 (through June 28) and includes funds for scholarships, the CAI Apprenticeship Program. This is lower than 2014-2015, however it is the second highest in the past four years.

534.01  Ensure sufficient funds are available from gifts, grants and internal allocations to maintain Griffin Hall as a cutting-edge learning facility, ongoing
534.02  Y1: Work with MARCOMM to rework the COI's set of printed materials and web presence, consistent with new NKU guidelines, maximizing impact with designated audiences.
Y2-Y4: Move into the RCM model with a set of entrepreneurial programs that include but are not limited to scaling up non-credit bearing professional courses in high-need focal areas of informatics.

Sustain a college culture that values inclusiveness, excellence, civility, health and wellness.

2015-16 Progress Narrative

Work began on exploring alternative faculty positions during 2014-2015, and created a Professor of Practice position that is being filled by Dr. Gary Ozanich, Associate Director of the HIC.

In 2015-2016, COI-specific staff/faculty development opportunities included: Allied Training, Allied Trans Training, Title IX training and Counseling training. We started a monthly birthday celebration in the reading room for all staff and faculty. In response to a student suicide, once college meeting was run by Dr. Ben Anderson, Director of Health, Counseling and Student Wellness. COI-specific stretch/strength sessions are held bi-weekly in a conference room in GH. The college also won the NKU Wellness and Work Award again this year.

The COI hired faculty this past year from underrepresented groups in CS (African, Middle-Eastern).

Y2: Work with Academic Affairs to explore externally affiliated and/or part-time tenure track positions, possibly with external endowments.

Y2. Work with Academic Affairs to explore variants of the non-tenure-track positions that can include work with external partners, service learning, and other engagements.

Y3: Experiment, where feasible, with the hiring of Visiting Assistant Professors for two-year periods.

Y2-Y3: Work with NKU Senior Advisor for Inclusive Excellence; develop a program targeting recruitment of a diverse adjunct pool, working with minority professional organizations such as the BDPA.

Continue to address community building in Griffin Hall among staff and faculty, involving celebratory, recreational, and professional development events, cognizant of work-life balance and the need for a sense of place.
Continue to fully engage and participate in activities that promote the success of NKU College of Informatics

2015-16 Progress Narrative

Cross-college collaborations have continued with faculty from different colleges (e.g., INF 128, CSC 270), supporting the development of English's Game Humanities program, and working on grants from with faculty from other colleges (e.g., NFS iUSE, HHMI Inclusive Excellence)

Additionally, BIS 394 & EGT 394 offered joint classes robotics collaboration (Steve Hinkel), also Ben Martz and his BIS 380 students worked with Joe Cobbs (COB Sports Business) and his SPB 307 (Moneyball: The Economics of Sports) students on a joint sports team player stats project.

536.01 Follow MARCOMM’s lead for NKU Branding, and COI-specific branding, ongoing
536.02 Y2-Y4: Support cross-college initiatives and non-COI initiatives to promote the success of our students and NKU in general

537 Increase visibility of COI community engagement activities

2015-16 Progress Narrative

See 533 above.

537.01 Y1: Develop procedure for recording advertising, news, and other external communication modalities for the COI
537.02 Y2-Y3: Increase the number of articles, mentions and news pieces about the COI

Student Success

Friday, July 15, 2016
The COI activities to improve retention continued this past year, with two changes. One major focus this year was working with other NKU offices (Vice Provost, LAP and CINSAM) to continue offering course support in CSC courses that had been funded by the NSF FORCE grant. The STEM Ambassador program has changed, but we were successful in continuing with targeted class support through Supplemental Instruction with funds from the Vice Provost Office and CINSAM offering leadership seminars for students leading weekly study sessions. INFOLunches, held in the Commons, was changed to INFOBytes, held in Griffin Hall and due to staffing issues in the advising center INFO-PROMO-U was cut back.

The COI work on retention efforts is evidenced by an increase in retention rates. COI 20151 student retention for first spring was 82.9% in the major and 95.4% at NKU (a five year record). First fall to second fall retention for 20141 cohort was 52.2% in the major and 74.3% at NKU. This is an increase from the previous year (43.5% and 68.3% respectively).

The <= 6 year graduation rate from NKU for the COI 20091 cohort is 42.6%, an increase from the 20081 cohort rate of 41.5%. This compares to a 31.7% <= 6 year graduation rate for all 20091 students.

524.01 Increase retention within the college, all programs collectively by Y3, report annually.
524.02 Increase graduation rates for all undergraduate COI degree programs

525 Systematically engage more faculty members in the mentoring of students, supplementing the work of the COI Advising Center.

The COI worked on a proposal for faculty members to offer office hours in the advising center. Due to understaffing in the advising center and staff changes, this work has not been completed nor the plan implemented.

525.01 Y1-Y2: Research best practices and develop a plan so all students have access to a professional advisor and a faculty academic mentor.
525.02 Y2-Y3: Begin roll out of plan for one targeted class level.
525.03 Y4: Extend to full undergraduate class.
### Broaden participation in Study Abroad / Study Away programs.

**2015-16 Progress Narrative**

In 2015-2016, students studied abroad with NKU faculty in South Africa and France. We implemented an exchange program with Rotterdam University. We also received a $25,000 gift this past year to support COI students in international experiences.

- **526.01** Y1-Y2: Work with the office of International Education and department chairs to engage faculty to develop Study Abroad/Study Away programs.
- **526.02** Increase the number of COI students participating in Study Abroad / Study Away programs annually.
- **526.03** Y2-Y4: Increase the number of different Study Abroad/Study Away programs offered.

### Talent Development

**Develop faculty and students as researchers through undergraduate research.**

**2015-16 Progress Narrative**

The university, and all departments, have instituted 0 - 6 credits for undergraduate research, allowing us to track undergraduate researchers.

This past year the COI had 51 presentations at the Celebration of Student Research, an increase of 45% from last year.

Research, Grants and Contracts had a major re-organization this past year and was unable to work with us to reboot a Grant Group. We hope to work with them to provide faculty support for proposal submissions.

- **527.01** Y1-Y2: Define and implement system to track students doing undergraduate research based on the university system for accounting of experiential learning including defining the baseline numbers.
- **527.02** Y3: Begin growing the number of students doing undergraduate research with faculty by 5% annually.
- **527.03** Y4: Begin growing the number of freshmen and sophomores doing undergraduate research by 3% annually.
- **527.04** Y2: Reboot the Informatics Strategic Grant Committee working with RGC to provide faculty support and education regarding opportunities for funding undergraduate student research.
528.01 Increase the number of COI student resumes uploaded to Norse Recruiting
528.02 Increase the number of COI students participating in the STEM-NG and spring job fairs
528.03 Y2: Grow the number of students doing off-campus internships and co-ops by 8% annually.
528.04 Increase student participation in INFO-EXPO and INFO-PROMO U by 10% each year.

The COI attendance at the fall STEM-NG fair was 161 students, an increase of 27% from the previous year and a new attendance record. Attendance at the spring Career Expo was 180 students, an increase of 8% from the previous year. 841 students, an increase of 10%, used Norse recruiting during the past year, with an increase of 3.8% (435 students) who activated their profile for the first time. In total, the COI saw a slight total increase of 0.2% of enrolled students using Norse Recruiting in the past year.

The number of off-campus internships did not increase 8% in the past year, and we will focus on increasing it this coming year.