Department Chair's Report to the IT Alliance December 10, 2014

Recognition of our two outstanding new CIS/CS faculty

Dr. Dinko Bacic came with a strong record of teaching experience, a very timely research record, industry experience, and an agenda of community engagement and consulting. He has been teaching the ERP class and the Senior Projects class this fall, leading his students to achieve impressive results.

Dr. Hui Shi is teaching the CS Algorithm Design and Object-Oriented Programming courses this fall and next spring. Her wealth of knowledge about "smart" search engines is a great asset to the CS Program. Having such a strong researcher and faculty on board has contributed significantly to the Computer Science and CIS programs and will give us the flexibility needed to offer new courses. With the addition of a faculty with her credentials to the CS program, we hope to be in a good position to apply for and secure ABET accreditation in the future.

Curriculum Updates

CS faculty have aligned the CS curriculum with the new changes that are included in the updated ACM Model Curriculum. CIS faculty have collapsed the tracks and redesigned the curriculum so that all CIS students will have exposure to web development, programming, ERP, business analytics, and computer security.

Rationale for Computer Information Systems (CIS) Modification

Due to the continuously evolving nature of computer information systems, the CIS discipline must be adjusted and revised periodically to reflect current uses of technology used in business, industry, and organizations, so that our students will be prepared for success in the marketplace. Feedback from members of the IT Alliance and Board of Advisors, and interactions with career services have provided data that indicate expectations from industry regarding our CIS majors. This data has been further corroborated at conferences and seminars where other schools have discussed their curriculum development. In all cases, while those in charge of hiring highly value the communication skills and business knowledge that our CIS program provides, they are concerned that not all students coming from our program will have the technical skills needed for the majority of the entry-level positions available to them upon graduation.

The current CIS curriculum has three tracks that cover some important topics in which our CIS faculty believes all CIS students need to have knowledge and skills. Of these three tracks, two are primarily technology-focused (web development and programming) and one is primarily management-focused (IS management). As an unforeseen side effect, students have been opting for the Management track in lieu of attaining technical skills, anticipating this as the 'easy way through".

This proposal collapses the tracks that are currently provided into a single curricular offering that we feel will encompass all the necessary strengths our graduates need in order to find placement

in entry-level positions, both locally, and beyond the region. A renewed emphasis will include all of the most crucial managerial skills combined with a requirement for a core competency in technical skills.

The proposed curriculum is aligned with the IS2010 Model Curriculum:

CIS REQUIREMENTS

CIS 111 Introduction to Computer Information Systems

CS 258 Introduction to Object-Oriented Programming using C#

CIS 276 Introduction to Enterprise Web Development

CIS 305 Management Information Systems

CIS 345 Information Systems Security& Risk Management

CIS 367 Data Communications

CIS 375 Systems Analysis and Design

CIS 376 Intermediate Enterprise Web Development **OR** CS 358 Intermediate Programming using C#

CIS 377 Database Concepts

CIS 385 Enterprise Resource Planning

CIS 454 Managing IT and Bus. Analytics

CIS 477 Applied Software Development Project

Post Baccalaureate Certificate in CIS has been updated to reflect the above changes to the CIS curriculum.

Enrollment and Degrees Awarded

Enrollment by Major	2012	2013	2014
CIS - New Students	27	27	22
CIS - Continuing and Readmit Students	108	112	102
CS - New Students	46	38	58
CS - Continuing and Readmit Students	89	97	101
Total	270	274	283

Degrees Awarded by Major	2011-12	2012-13	2013-14	Total
Computer Information Systems	20	25	20	65
Computer Science	8	11	16	35
Total	28	36	36	100

Future Challenges:

- BIG DATA
- Cloud Computing
- High-performance telecommunications networks, such as Multiprotocol Label Switching (MPLS)
- Gigabit LAN ,Wi-Fi, li-Fi, WAN and Cellular Mobile Networks
- Evolving Web (Web 1.0, 2.0, 3.0, 4.0...)
- Continuous increases in the development of smarter hardware and software and an evolution in the way things are done.
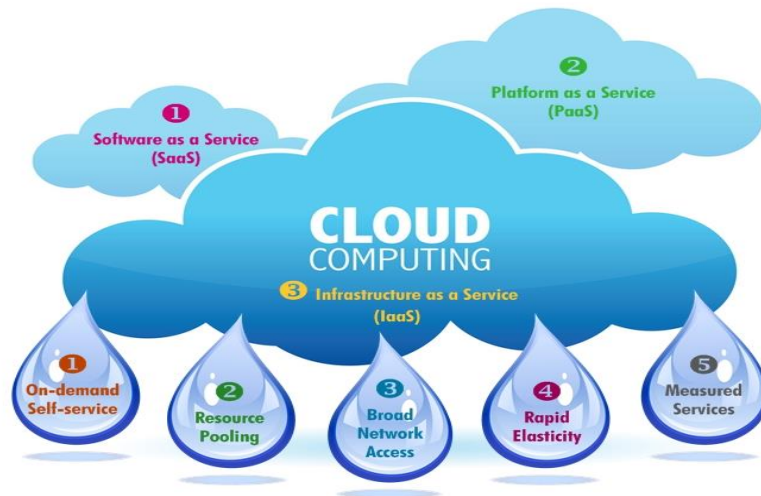
Faster-Paced Visualization, Integration, and Virtualization applications, services, and delivery methods.
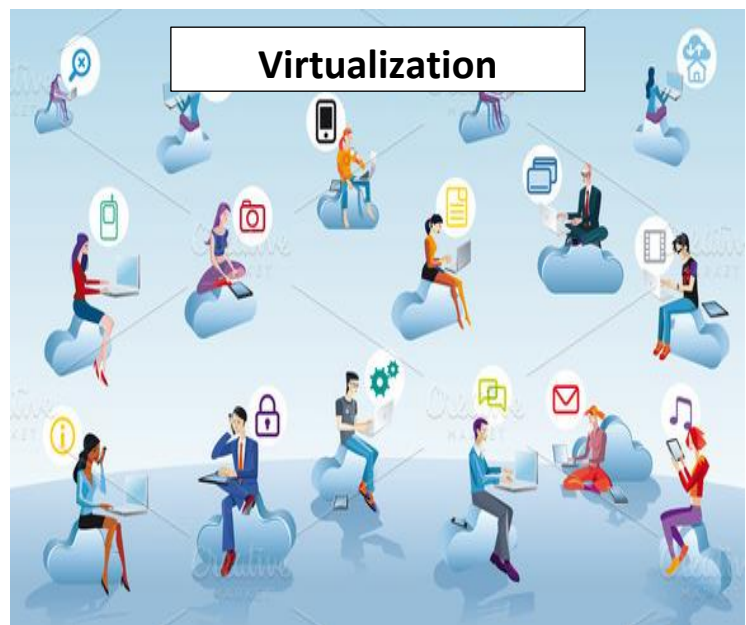
To deal with these challenges…

Continuously integrate and redesign curricula for CIS and CS, developing new certificates to give students with special interest more focus such as:

- Mobile App Development
- Project Management
- IT Management
- Innovation Management
- Enterprise Web Development

Develop more cross-discipline and cross-college minors and certificates —such as health professions, education, journalism, art, communications, science and engineering,..etc.

With the Dean's leadership, we are in the process of redesigning the RCOB Business Core to strategically address critical thinking, entrepreneurial mind set, big data, and business analytics.