

# School of Business & Technology

## ANNUAL GOALS FORM

Faculty Name: Thomas Buck

Goals for the following years: 2016-2017

### I. Development and Goals

What are your goals for the next year in the areas of teaching, service and professional development?

**Teaching** (list courses you plan to teach and teach activities you hope to complete):

- Fall 2016
  - CIS1205 – Technology Ethics (Sec’s 001 & 002)
    - Experiential Learning Activities – *Concrete Experience & Reflective Learning activities in:*
      - ✓ Information Technology (IT) & Quality of Life
      - ✓ IT & Productivity
      - ✓ Personal Privacy
      - ✓ Freedom of Expression
      - ✓ Intellectual Property
      - ✓ Social Networks & Media
    - New Curriculum Learning Activities:
      - ✓ Drone Ethics
      - ✓ Data Mining Ethics
      - ✓ Case Studies Ethics
      - ✓ Gamification Ethics
      - ✓ Ethics Simulations
      - ✓ Ethics Formal Debate
      - ✓ Ethics Research Papers & Presentations
    - Inclusivity Approach:
      - ✓ Assess classroom climate
      - ✓ Universal design principles in lessons & curriculum
      - ✓ Proactive incorporation of diversity into overall curriculum
  - CIS3205 – Information Systems (Sec’s 001 & 700)
    - Experiential Learning Activities – *Concrete Experience & Reflective Learning activities in:*
      - ✓ Hands-on Activities in Access & Excel
      - ✓ Business Case Studies
      - ✓ Student Presentations and Research Projects
    - New Curriculum Learning Activities:

- ✓ Gamification of select activities and assessments
    - ✓ CIS/IT Guest Speakers
    - ✓ CIS Business Simulations
  - Inclusivity Approach:
    - ✓ Assess classroom climate
    - ✓ Universal design principles in lessons & curriculum
    - ✓ Proactive incorporation of diversity into overall curriculum
- MKT3320 – Marketing on the Internet
  - Experiential Learning Activities – *Concrete Experience & Reflective Learning activities in:*
    - ✓ e-Marketing Assessment Plans
    - ✓ Student Partnering with Local Businesses/Organizations
    - ✓ E-Marketing Guest Speakers
    - ✓ Website development
  - Inclusivity Approach:
    - ✓ Assess classroom climate
    - ✓ Universal design principles in lessons & curriculum
    - ✓ Proactive incorporation of diversity into overall curriculum
- CIS4032 – Telecommunications & Networks
  - Experiential Learning Activities – Concrete Experience & Reflective Learning activities in:
    - ✓ Network functions, designs and application
    - ✓ Review and apply network security
  - Inclusivity Approach:
    - ✓ Assess classroom climate
    - ✓ Universal design principles in lessons & curriculum
    - ✓ Proactive incorporation of diversity into overall curriculum
- CIS4999 – Intro to Cryptography (with C and C++)
  - Experiential Learning Activities – Concrete Experience & Reflective Learning activities in:
    - ✓ Encryption programming functions, designs and application
    - ✓ Security research project and application
  - Inclusivity Approach:
    - ✓ Assess classroom climate
    - ✓ Universal design principles in lessons & curriculum
    - ✓ Proactive incorporation of diversity into overall curriculum
- Spring 2017
  - CIS1205 – Technology Ethics (Sec 001)
  - CIS1205 – Technology Ethics (Sec 002)
  - CIS3108 – Systems Analysis and Design (Sec 001)
  - MGT3354 – E-Commerce for New Enterprises

- Activities:
  - Duluth STEM, Robotics & Engineering Clubs (East, Denfeld, Marshall, Harbor City & Superior High) – Advisor / Instructor / Coordinator
  - Maintaining the Society for the Advancement of Information Systems Website ([www.css.edu/sais/](http://www.css.edu/sais/))
  - CSS Computer Club Activities
    - Drone Programming & 3D Printing Workshops
  - 2017 WITC Robotics Summer Camp
  - Course Development
    - Leadership Ethics MOOC

**Service** (list primary college and community service activities):

- CSS Beekeeping Club – Advisor
- Society for the Advancement of Information Systems – Board Member, Director of Web Activities, Proceedings Editor
- Asian Art Council of Oregon – Board Member, Journal Editor
- Graphic Arts Editor for the Nihon Bijutsu Token Hozon Kyokai (NBTHK) - US
- Advisor/Volunteer Instructor for the Harbor City Robotics Class & Club
- Marshall School / FLL Regional Robots Tournament – Judge.
- Global Center for Cultural Entrepreneurship – Member and Volunteer Mentor
- Publication Reviewer for American Educational Research Association (AERA)
- Reviewer for Midwest Regional Conservation Guild (MRCG) 2016/2017 Annual Meeting Presentations

**Professional Development** (list conferences you may attend, research work and other professional activities):

*Conferences & Article Publications:*

- Attend the 2017 Society for Advancements in Information Systems (SAIS) / Midwest Business Administration Association International (MBAA) Conference; Chicago, IL, March 22 - 24. Presenting/Publishing Papers:

Thomas L. Buck, PhD, College of St. Scholastica, Duluth, MN  
 Richard L. Revoir, EdD, MBA, College of St. Scholastica, Duluth, MN

*Title: Making a MOOC work: A review of the various obstacles and key factors faced in the restructuring and successful delivery of a massive open online course.*

In 2013, the authors of this paper developed and implemented a massive open online course (MOOC) in Leadership Ethics with mixed results in student engagement and completion rates. As part of preparing for the second running of the course in 2017, various obstacles and key factors faced were identified, modified and/or restructured, and a research-based engagement model was adopted containing simple checkpoint problems, case studies and homework, as well as an interactive ethical decision making App (Android & Apple) developed by the

authors that uses item response theory applied to the shared homework problems. In this paper we will discuss specific obstacles and key factors, and how changes in certain course design aspects are expected to have a positive affect on student behavior and results, based on current research correlations between student involvement, course completion and higher retention.

Thomas L. Buck, PhD, College of St. Scholastica, Duluth, MN

David Swenson, PhD, College of St. Scholastica, Duluth, MN

*Title: Identifying one time versus chronic alcohol abusers: Feasibility study of a computer-assisted alcohol screening program for DWI offenders in drug court.*

Alcohol use patterns that are hazardous for one's health is prevalent among DWI (driving while intoxicated) offenders and is a key predictor of recidivism. The aim of this program evaluation was to determine the feasibility and usability of a computer-assisted screening, brief intervention and referral to treatment (SBIRT) program for DWI offenders. The current treatment program consists of a web-based, self-guided screening tool for assessing alcohol use patterns and generating a personalized feedback report that is then used to deliver a brief motivational intervention and if needed, a referral to treatment. Results of this program evaluation suggest that computer-assisted SBIRT may be successfully implemented within the criminal justice system to DWI offenders soon after the offense, and this feasibility of a computer-assisted SBIRT provides a framework for further research in its possible effects on treatment utilization and recidivism.

Thomas L. Buck, PhD, College of St. Scholastica, Duluth, MN

Thomas Gibbons, PhD, College of St. Scholastica, Duluth, MN

*Title: Engaging middle and high school students through robotics competitions: Patching possible leaks in the computer science pipeline.*

Although Computer Science jobs represent the fastest growing segment of jobs in all STEM fields, in many of the middle school and high school robotics competitions the abstract logistics and programming of Computer Science are often overshadowed by the tangible building and designs of Engineering, not separating the computing discipline from the mechanical as a specific field of study for college and/or career. In this paper we analyze different engagement features of secondary education robotics competitions that identify with, or directly relate to, Computer Science through the use of tangibles, competitive environments and teamwork, all within the context of the computing discipline "pipeline" from middle and high school to college/university, and ultimately a career. The authors will provide a summary of current research, and examples of how each feature can be incorporated into Computer Science programs to recruit and retain students in higher education.

- The 2017 AMC SIGCSE

Gibbons, T. & Buck, T. *Engaging High School Robotics Students*

#### *Book Publications:*

- Buck, T. L. (2016). *The social entrepreneur: Online marketing and business basics*. B. Wiley & Son Publishing, Philadelphia, PA. ISBN-13: 978-1503283664

(Education / Professional Development)

- Finishing MBA (May, 2017) – Emphasis: Informatics Technologies & Applied Information Systems.

Capstone: Development of an SBIRT decisional model database for contributing to the quality of court decisions and referral for community services to reduce recidivism.

(Other Professional Activities)

- Actively seeking a **Tenure Track** position in The College of St. Scholastica's School of Business and Technology (SBT) / Department of Computer Science/Info. Systems (CIS).

## II. Resources

What resources, including funding and release time, would help support you in attaining these goals?

Build CSS Lego Drone – CSS Raffle off at State Fair (Summer 2017).

New 3D Printer