College of Technology
Site Coordinators Meeting
Date: Friday, April 12, 2019
Hosted by: University of Bridgeport
84 Iranistan Avenue, Bridgeport, CT 06604
Building: Arnold Bernhard Center (ABC) Building Room: Mr. & Mrs. Henry B. duPont III Tower Room

ATTENDEES

CT State Colleges & Universities
Karen Wosczyna-Birch, Executive Director, College of Technology – Regional Center for Next Generation Manufacturing
Wendy Robicheau, Project Manager, College of Technology – Regional Center for Next Generation Manufacturing
Susan Spencer, Program Coordinator – COT programs, Gateway CC
Eric Flynn, Department Chair – Engineering & Applied Technologies, Gateway CC
Joe Duhaime, Program Director - Mfg, Housatonic CC
Stella Litwinowicz, Assistant Professor, Housatonic Community College
Adam Scobie, Instructor, Housatonic Community College
Felisha Guirand, Recruitment & Retention Coordinator, Housatonic Community College
Peter Angelastro, Associate Professor, Naugatuck Valley CC
Sharon Gusky, Professor, Northwestern CT CC
Mobin Rastgar Agah, Program Coordinator – Norwalk CC
Tracy Ariel, Director, Manchester & Middlesex Community Colleges
Mehrdad Faezi, Professor, Manchester Community College
Lin Lin, Program Coordinator, Middlesex CC
Jakob Spjut, Program Coordinator, Quinebaug Valley CC
Steve LaPointe, Director, Quinebaug Valley CC
Michael Gentry, Program Coordinator, Three Rivers Community College
Mathew Spinelli, STEAM Director, Tunxis Community College
Matthew Enjalran, Program Chair, Southern CT State University

Other College & Universities
Jani Pallis, Associate Professor, University of Bridgeport
Ruba Deeb, Associate Professor, University of Bridgeport
Omar Abuzaghleh, Assistant Professor, University of Bridgeport
Hassan Bajwa, Associate Professor, University of Bridgeport

MINUTES

Introductions – Gad J. Selig, Dean, Industry Outreach & Business Development

Welcome to UB – Stephen Healey, Vice President & Provost, University of Bridgeport (UB)

- Worked on articulations and has visited all state community colleges. Engineering and technology is embedded into everything we do. We need students moving through these programs to serve social needs. Our responsibility is to knock down every door that blocks participation for underrepresented groups in STEM. Articulation agreements are meant to help students who cannot manage the cost of higher education. Let's keep working together to do amazing things.

College of Technology – Regional Center for Next Generation Manufacturing Updates – Karen Wosczyna-Birch, Executive Director

- **Smart Manufacturing Drone Workshop – May 28-29 at Tunxis CC –** This will be held at Tunxis Community College in partnership with Motlow State Community College in Tennessee.
- Currently working with CT AARP to address the shortage of manufacturing instructors in Connecticut. Also negotiating a scholarship for age 50+ in manufacturing programs at the community colleges.
- Epsilon Pi Tau is in its 90th year. Our Gamma Phi Chapter induction will be on May 3rd at Manchester

Community College. There are new chapters in Germany, India, and France.

- For the Connecticut Apprenticeship Program for Robotics and Automation, UConn has the grant and the community colleges are leads.
- Tunxis Community College has received approval from the Board of Regents to purchase 21 Spring Street in Farmington (former EDAC manufacturing facility). The Advanced Manufacturing program will be housed in this 45,000 sq.ft. building. Tunxis CC would like to address the spring and stamp industry too.
- **COT Curriculum Approval Process –** All new COT programs and program modifications have to go through COT approval. COT curriculum has to be reviewed to make sure it addresses articulation agreements.
- A COT Curriculum Review Committee will be formed to review details of programs prior to vote by COT as a whole. The Site Coordinators agreed this is a good idea. This will be voluntary and let Wendy Robicheau know if you are interested.
- Mike Koslowski is leaving the CSCU system and Mary Bidwell is taking over the manufacturing aspects of his position.
- COT is being recognized as a model for Guided Pathways.

Overview – Gad J. Selig, School of Engineering, University of Bridgeport

- UB has a new president and the university has been restructured to have three schools.

Overview – Electrical Engineering – Hassan Bajwa, Chair, Electrical Engineering, UB

- The Electrical Engineering program began in 2014 and was accredited by ABET in 2017. The articulation agreement is in place to make transfer seamless for students.

Overview – Mechanical Engineering – Jani Pallis, Associate Professor, Mechanical Engineering, UB & Director, CT NASA Space Grant Consortium

- Mechanical Engineering is in its second year. There are 50 students in the program. The program will seek ABET accreditation in 2021. The program has all new labs and equipment. There is emphasis on undergraduate research and most undergrads are on grants, including freshman and sophomores. Facilities include a ground station for satellites and students are helping prepare for the 2025 solar eclipse. Participating in the research programs has set students aside from other students in job interviews.

Overview of New Degree – B.S in Computer Engineering Technology, Assistant Professor, Omar Abuzaghleh

- This program has three new articulation agreements with Gateway CC, Housatonic CC, and Norwalk CC in Technology Studies, Computer Engineering Technology, and Computer Information. The program only requires up to Calculus I. Technology Studies and Computer Systems Technologies have been identified as good programs for transfer. Programs have also been identified at Naugatuck Valley CC.
- Graduates get jobs related to applications such as software technician, electronics technician, and software engineer.
- This program will not go for ABET accreditation.

STEM-On-Wheels Bus – Ruba Deeb, Associate Professor, Biomedical Engineering & Technology Management

- The STEM Bus is a University of Bridgeport and Discovery Museum collaboration. It is a retrofitted city bus that is now a mobile STEM lab.
- In its pilot year, events are offered for free through August 2019. Applications will be taken after that and there will be a charge for events.
- Visit https://www.bridgeport.edu/stem-on-wheels for more information.
- Most of the equipment is modular and can be customized for what the host needs for the event.

Overview – Transfer Admissions – Jessica Crowley, Director, Undergraduate Admissions

- Share Jessica's contact information with any students who want to transfer to University of Bridgeport (203-576-4812; jessicacr@bridgeport.edu)

- When students apply they are automatically reviewed for scholarships. CT Promise is still available.
- Students are also offered a CT Rail Pass.
- The career center offers services such as resume and interview preparation. Alumni can also use the career center.

Upcoming COT Meetings

May 17, 2019 – Northwestern CT Community College, Winsted

Important Dates

April 24-25- Design-2-Part Manufacturing Trade Show – Mohegan Sun
April 24 – Women in Manufacturing CT Chapter Networking Event – Mohegan Sun
May 3 – Epsilon Pi Tau Induction Ceremony – Manchester CC
May 14-16 – EASTEC – West Springfield, MA
May 28-19 – Smart Manufacturing Drone Workshop – Tunxis CC
June 13 – Statewide Manufacturing Instructor Recruitment Event – Tunxis Community College

UNIVERSITY OF BRIDGEPORT

Overview

School of Engineering – Undergraduate Programs, Research Focus & Stem-On-Wheels Bus

"Opening Doors, Building Futures"

Dr. Gad J. Selig, PMP, COP
Dean, Industry Outreach & Business Development, Research & Economic Development Group
University of Bridgeport
E-mail: gadselig@bridgeport.edu

Outline

- Overview – University of Bridgeport
- School of Engineering Highlights
- School of Engineering Programs
  - Undergraduate Degrees
  - Accelerated BS/MS degree program
- Industry Advisory Board and CTech Incubator
- Student/ Graduate Employment
- Financial Aid, Scholarships and Stipends
- Stem-On-Wheels Bus
- Appendix
  - Select Research Areas
  - Select Research Centers and Laboratories
  - Graduate Degrees
- Questions

UBelong{Here}

- **5,200+ students from over 80 countries**
- **Located in the State of Connecticut, Fairfield County, City of Bridgeport**
- 1 hour from **New York City** (80 km)
- 2 hours from **Boston, Massachusetts** (260 km)
- 5 hours from **Washington D.C.** (465 km)

University of Bridgeport

Schools, Colleges & Institutes *

College of Engineering, Business & Education

- School of Engineering
- Ernest C. Trefz School of Business
- School of Education

College of Arts & Sciences

- Departments of Arts & Sciences
- School of Professional Studies
- Shintaro Akatsu School of Design
- Center for International Study & Exchange
- School of Public & International Affairs

College of Health Sciences

- School of Naturopathic Medicine
- Nutrition Institute
- Acupuncture Institute
- School of Chiropractic
- Fones School of Dental Hygiene
- School of Nursing
- Physician Assistant Institute

*** UB offers over 120 Programs of Study & Concentrations**

UB {Accreditations}

To Name a Few…

- The University of Bridgeport is fully accredited by the New England Association of Schools and Colleges
- The University is accredited by the Board of Governors of the Connecticut Department of Higher Education
- The School of Business is accredited by the Association of Collegiate Business Schools and Programs (ACBSP)
- Undergraduate Programs in the School of Engineering are accredited by the Accreditation Board for Engineering and Technology (ABET)

New England Association of Schools and Colleges (NEASC)

ACBSP Association of Collegiate Business Schools and Programs

IAMOT 2013

ABET

School of Engineering {Highlights}

- The School of Engineering is internationally renowned for its inter-disciplinary programming and also offers many research and graduate concentrations, certificates, and two degree opportunities within several multi disciplinary fields of study.
- Sponsored research funding at the School of Engineering has quadrupled in the last few years. The school houses over 20 research centers and laboratories that are state-of-the-art facilities.
- SOE students have been awarded the 1st, 2nd & 3rd place awards for the graduate research project competition at the 2013, 2014, 2016, 2017 & 2018 North East American Society of Engineering Education (ASEE) conference.
- Select concentrations prepare students for industry certification exams (E.g. PMP, etc.)
- UB has one of the highest job placement rates.
- In 2017, the SOE received a full six(6) year accreditation from ABET for the BS in Electrical Engineering.
- In 2018, UB was awarded a CTNext grant to improve higher education entrepreneurship and innovation for a "Technology Transfer, Licensing and Commercialization Office", with partners from CT public and private colleges and universities. Our Partners are HCC, NCC & Fairfield University.
- In 2018, SOE students won three awards out of six awards in the AAAEA (Arab American Association of Engineers and Architects) annual scholarship competition.

Undergraduate Council on Research and Scholarship

- Advance knowledge and production of research
- Foster faculty-student mentorship
- Implement innovative research-focused curricula
- Develop infrastructure to support research and scholarship

UB Summer Scholars Program

6 Week Summer Research Emersion Experience

- Undergraduate students mentored by UB faculty
- Weekly academic & professional development workshops
- Interdisciplinary student research symposium

Industry Outreach
UB Ctech Inc**UB**ator & Connecticut Innovations

Benefit for Students and Faculty

The Ctech IncUBator, a state of Connecticut partnership between UB and Connecticut Innovations, enables the growth and commercialization of UB's applied research and innovation and welcomes external companies to participate. The IncUBator aims to create jobs and foster regional economic development. UB has co-located the Student Entrepreneurship Center at the Ctech IncUBator. UB students have been hired as interns by IncUBator companies. UB faculty have consulted with Incubator companies.

- FaceChecks, LLC (Security Systems)
  www.Facechecks.com
- Omnex Group Inc. (Also Sharemoney, LLC)
  www.sharemoney.com
- Student Entrepreneurship Center (soon to move to its new home to be called, UB Innovation Center at Bauer Hall)

Connecticut Innovations

Industry Advisory Board {IAB}

The IAB consists of 25+ companies that provide internships and employment opportunities to UB students and graduates on a regular basis. The IAB supports the University by providing industry feedback and sponsorship of new degree and professional programs, providing speakers to UB events, sponsoring educational and academic events, participating in UB Job Fairs and supporting related activities.

Select IAB Companies:

- ✓ AGR Bodine
- ✓ Aetna
- ✓ Alexion
- ✓ Cooper Surgical
- ✓ Conduent
- ✓ CT Innovations
- ✓ GE Digital
- ✓ Kubtec
- ✓ Oracle
- ✓ Pitney Bowes
- ✓ Pratt & Whitney
- ✓ Sikorsky Aircraft
- ✓ Standard Oil
- ✓ Vodafone
- ✓ Others

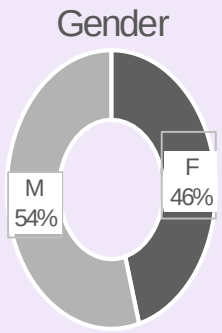
Student Entrepreneur Center

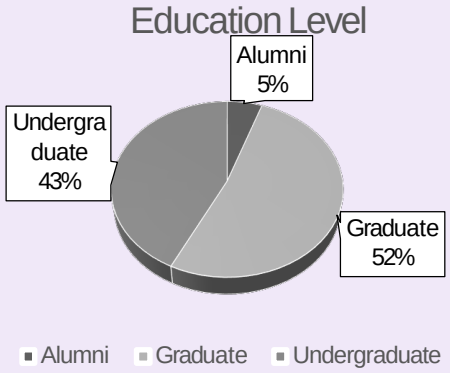
- 3 years operational to date
- 16 businesses launched to date
- Over 200 students enrolled

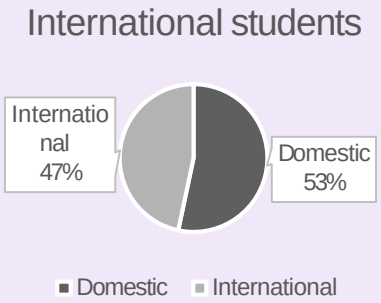
Technology, Health Services, Consumer Goods, Hospitality, Others

Events for members of the SEC

1. SECorientation Spring 2018
2. Career Fair/Co-Founder event
3. SECShowcase/Alumni Event
4. Hackathon Weekend
5. Community College Pitch Competition
6. UB Business Plan Competition
7. State of CT Business Plan
8. End of Semester Party
9. Lunch and Learn Fridays







CTNext- UB Innovation Grant Submissions/Awards (2018 and 2019) (As of 1/24/19)

Project #	School	Project Name	PI	Date Submitted	Amount
UB 18-101	University of Bridgeport	Automatic intrusion detection system for the Internet-Of-Things using machine learning.	Shakour Abuzeid	6/29/18	$5,000
UB 18-102	University of Bridgeport	Epilepsy seizure detection using EEG signals and smartphone development	Khaled Elleithy	10/22/18	$5,000
UB 18-100	University of Bridgeport	A decision support system application for performance Evaluation : An intelligent multi-attribute decision making approach	Elif Kongar	5/29/18	$5,000
FFU 18-100	Fairfield University	AutoDolly	Carl Scheraga	11/20/18	$5,000
FFU 18-101	Fairfield University	Ranger Hat	Doug Lyon	11/26/18	$5,000

Project #	School	Project Name	PI	Date Submitted	Amount
FFU 19-101	Fairfield University	Land Maverick	Carl Scheraga	1/9/19	$5,000
FFU 19-100	Fairfield University	Wireless Joystick	Doug Lyon	1/02/19	$5,000
NCC 19 -100	Norwalk Community College	4 Paws Wearables	Jonathan McMenamin-Balano	1/2/19	$2,500
HCC 19-100	Housatonic Community College	Cloud-based Streaming Service for Textbooks	Michael Roer	1/8/19	$5,000
HCC 19-101	Housatonic Community College	StatFinder- Connecting Athletes with their future	Robert Zukowski	1/15/19	$5000
UB 19-100	University of Bridgeport	Real time Heart-Attack Alert System	O.Abuzaghleh and M.Faezipour	1/11/19	$5,000
UB 19-101	University of Bridgeport	Chiro Manipulation Trainer and Smartphone App	S.Perle, M.Ciolfi and A.ElSayed	1/15/19	$5,000

Undergraduate & Graduate Degree Programs – School of Engineering

- B.S. in Computer Science
- BS in Computer Engineering
- BS in Computer Engineering Technology (CET) (New)
- BS in Electrical Engineering
- BS in Mechanical Engineering
- M.S. in Biomedical Engineering
- M.S. in Computer Science
- M.S. in Computer Engineering
- M.S. in Electrical Engineering
- M.S. in Mechanical Engineering
- M.S. in Technology Management
- Ph.D. in Computer Science & Engineering
- Ph.D. in Technology Management

BS-Electrical Engineering (Total credit hours required = 120)

Suggested Program of Study

Semester 1
CS 101 Introduction to Computing with lab (3 credits)
ENGR 111 Intro to Engineering (3)
English 101 Composition and Rhetoric (3)
Math 110 Calculus (4)
TOTAL =13 credits

Semester 2
Phys 111 Principles of Physics I, with lab (4)
Math 112 Calculus II (4)
Chem 103 General Chemistry with lab (4)
Social Science Elective (3)
TOTAL = 15 credits

Semester 3
Phys 112 Principles of Physics II with lab (4)
ELEG 233 Network Analysis I (3)
ELEG 235 Network Analysis I lab (1)
Math 215 Calculus III (4)
ELEG 209 Engineering Analysis (3)
TOTAL= 15 credits

Semester 4
ELEG 234 Network Analysis II (2)
ELEG 236 Network Analysis II lab (1)
Math 281 Differential Equations (3)
Fine Arts Elective (3)
Social Science Elective (3)
ELEG 210 Digital Design I (3) [cross-list with Cpeg 210]
TOTAL = 15 credits

Semester 5
ELEG 290 Econ and Mgt of Engr
ELEG 333 Signals and Systems (3) (can substitute DSP, ELEG 443)
ELEG 348 Electronics (3)
Math 323 Probability and Statistics (3)
ELEG 286 Microprocessors (3) [cross-listed course with Cpeg 286]
TOTAL= 15 credits

Semester 6
ELEG 337 Analog Electronics Lab (3)/ ELEG 344 Power Electronics (3)
ELEG 364 Programmable Logic control (3)/ ELEG 361 Controls Lab (3)
ELEG Communications course (ELEG 315, ELEG 316/416, ELEG 350/450) (3)
ELEG 342 Modern Communication (3)
CPE 315 Digital Design II with Lab (4)
TOTAL = 16 credits

Semester 7
ELEG 317 Controls (3) (can substitute ELEG 460)
ELEG 349 Senior Design Project A(2)
Tech Elective (3)
Tech Elective (3)
Humanities Elective (3)
TOTAL= 14 credits

Semester 8
ELEG 349B Senior Design Project B
ELEG Track Electives (12)
TOTAL = 14 credits

BS-Mechanical Engineering (Total credit hours required = 122)

Suggested Program of Study

Semester 1
CPSC 101 Introduction to Computing (3)
ENGR 111 Introduction to Engineering (3)
Math 110 Calculus I (4)
Chem 103 General Chemistry with lab (4)
English C101 Composition and Rhetoric (3)
TOTAL = 17 credits

Semester 2
MEEG 112 Engineering Graphics (3)
Math 112 Calculus II (4)
Phys 207 Principles of Physics I, with lab (4)
C101 Fine Arts Elective (3)
TOTAL = 14 credits

Semester 3
MEEG 250 Engineering Mechanics: Statics (3)
EE 233 Network Analysis I with Lab, aka Circuits I with Lab (4)
Math 215 Calculus III (4)
Phys 208 Principles of Physics II, with lab (4)
TOTAL = 15 credits

Semester 4
MEEG 252 Engineering Mechanics: Dynamics (3)
MEEG 203 Thermodynamics (3)
MEEG 223 Material Science for Engineers (3)
CPEG 286 Introduction to Microprocessors (3)
Math 281 Differential Equations (3)
HUM Humanities Core (3)
TOTAL = 15 credits

Semester 5
MEEG 303 Applied Thermodynamics (3)
MEEG 310 Mechanics of Materials (3)
MEEG 307 Fluid Mechanics (3)
Math 323 Probability and Statistics (3)
SOSC Social Science Core (3)
ENGL 204 Technical Writing (1)
TOTAL = 16 credits

Semester 6
MEEG 363 Heat and Mass Transfer (3)
MEEG 380 Mechanical Measurement and Data Analysis (3)
MEEG 305 System Dynamics (3)
MEEG 350D Machine Design (3)
ENGR 290 Economics and Management of Engineering Projects (3)
TOTAL = 15 credits

Semester 7
MEEG 381 Mechanical Engineering Systems Lab (3)
MEEG 361 Senior Design Project (3)
Mechanical Design Elective (3)
Technical Elective (3)
SOSC Social Science Core (3)
TOTAL = 15 credits

Semester 8
MEEG 362 Senior Design Project (3)
Thermal Design Elective (3)
Technical Electives (6)
Arts and Humanities Elective (3)
TOTAL = 15 credits

BS-Computer Science (Total credit hours required = 122)

Suggested Program of Study

Semester 1
ENGL 101 Composition & Rhetoric I (3)
MATH 110 Calculus I (4)
PHYSICS 207 Principles of Physics I (4)
CPSC 101 Java Programming(3)
TOTAL=14 credits

Semester 2
PHYS 208 Principles of Physics II (4)
MATH 112 Calculus II (4)
INTST C101 Computer Ethics (3)
CS102 Data Structure Java2 (3)
TOTAL= 14 credits

Semester 3
CS 227 Discrete Structures (3)
PHYS/CHEM/BIO Elective (4)
MATH 215 Calculus III (4)
HUM Humanities Elective (3)
CS 201 File Structures (3)
TOTAL =17 credits

Semester 4
CPEG 210 Digital System Design I (3)
CS 329 Algorithms (3)
ENGL 204 Technical Writing For Computer Science (1)
HUM Humanities Elective (3)
MATH Math Elective(214/314) (3)
FAC101 Fine Arts Elective (3)
TOTAL=16 credits

Semester 5
ENG 290 Economics & Management of Computing Projects (3)
SOSC Social Science Elective (3)
CS 301 Programming Language (3)
CPEG 286 Microprocessor System Design (3)
MATH 323 Probability and Statistics (3)
TOTAL=15 credits

Semester 6
CPEG 308 Operating Systems (3)
SOSC Social Science Elective (3)
CS Elective I (3)
CPEG 312 Computer Organization (3)
Technical Elective I (3)
TOTAL = 15 credits

Semester 7
CPEG 489 Software Engineering (3)
CPSC 349A Senior Design Project (1)
CPSC 350 Database Design (3)
CPE 371 Data Communications (3)
CS Elective II (3)
Technical Elective II (3)
TOTAL= 16 credits

Semester 8
CS Elective III (3)
CS 349B Senior Project (3)
Technical Elective (3)
Free Elective (3)
CS 203 2nd Programming Language (3)
TOTAL=15 credits

Total Credits **122**

BS-Computer Engineering (Total credit hours required = 121)

Suggested Program of Study

Semester 1
ENGL C101 Composition & Rhetoric (3)
MATH 110 Calculus I (4)
CS 101 Java Prog (3)
ENGR 111 Introduction to Engineering I (3)
CpE 210 Digital System Design I (3)
TOTAL= 16 credits

Semester 2
CHEM 103 General Chemistry I (4)
MATH 112 Calculus II (4)
PHYSICS 207 Principles of Physics I (4)
CS 102 Intro. to Computing II (Data St. & Algorithms)(3)
TOTAL= 15 credits

Semester 3
MATH 215 Calculus III (4)
PHYSICS 208 Principles of Physics II(4)
EE 233 Electrical Engineering I (3)
EE 235 Electrical Engineering I lab (1)
CS 227 Discrete Structures (3)
ENGL 204 (Tech Writing) (1)
TOTAL=16 credits

Semester 4
MATH 281 Differential Equations (3)
ME 223 Material Science for Engineers (3)
EE 234 Network Analysis II (2)
EE 236 Network Analysis II lab (1)
CpE 286 Microprocessor System Design (3)
HUM Humanities Elective (3)
TOTAL=15 credits

Semester 5
EE 348 Electronics I (3)
MATH 323 Probability and Statistics (3)
EE 317 Intro.to Control Systems (3)
CpE 315 Digital Design II w/lab (4)
SOSC Social Science Elective (3)
TOTAL =16 credits

Semester 6
CpE 312 Computer Organization (3)
MATH 214/314 Linear Algebra/Numerical Analysis (3)
CPE 387 Embedded System Design (3)
ENGR 290 (Eng. Econ) (3)
SOSC Social Science Elective (3)
TOTAL=15 credits

Semester 7
CpE 349A Senior Design Project (1)
EE 333/CPEG 460 Signals & Systems (3)
CpE 389 Software Engineering (3)
CpE 347/348 Logic Synthesis/VLSI Design (3)
Technical Electives (3)
FA Fine Arts Elective (3)
TOTAL=16 credits

Semester 8
CpE 349B Senior Design Project (3)
HUM Humanities Elective (3)
Free Elective (3)
Technical Elective (3)
TOTAL=12 credits

Total Credits **121**

B.S. Computer Engineering Technology- New Program Launched – Spring 2019

- 120 Credits
- Target-
  - Community College Transfer Students
  - Students with a degree in Engineering Technology discipline, or Engineering Science or Computer Information Systems
  - New Students

BS-Computer Engineering Technology (Total credit hours required = 120)

Suggested Program of Study

Semester 1
ENGL 101 Composition & Rhetoric (3)
MATH 106 College Algebra (3)
CS 101 Introduction to Computing I (3)
ENGR 111 Introduction to Engineering I (3)
Free Elective (3)
TOTAL= 15 credits

Semester 2
PHYS 201 General Physics I + lab (4)
CS 102 Intro. to Computing II (Data St. & Algorithms)(3)
ENGL 204 Technical Writing (1)
Free Elective (3)
Free Elective (3)
TOTAL= 14 credits

Semester 3
PHYS 202 General Physics I I + lab (4)
MATH 109 Pre-calculus (4)
Social Science Elective (3)
Humanities Elective (3)
Free Elective (3)
TOTAL=17 credits

Semester 4
MATH 110 Calculus I (4)
Social Science Elective (3)
HUM Humanities Elective (3)
Fine Arts Elective (3)
Free Elective (3)
TOTAL=16 credits

Semester 5
EE 233 Electrical Engineering I (3)
EE 235 Electrical Engineering I lab (1)
CHEM 113 Intro. Chemistry + lab (4)
ENGR 290 Economics & Management of Engineer Projects (3)
CpE 286 Microprocessor System Design (3)
CpE 210 Digital System Design I (3)
TOTAL =17 credits

Semester 6
EE 234 Network Analysis II (2)
EE 236 Network Analysis II lab (1)
CpE 315 Digital Design II w/lab (4)
CPE 387 Embedded System Design (3)
MATH 203 Elementary Statistics (3)
TOTAL=13 credits

Semester 7
CPET 349A Senior Design Project I (1)
CpE 312 Computer Organization (3)
Directed Electives (3)
Directed Electives (3)
Directed Electives (3)
Directed Electives (3)
TOTAL=16 credits

Semester 8
CPET 349B Senior Design Project II (3)
Directed Electives (3)
Directed Electives (3)
Directed Electives (3)
TOTAL=12 credits

Total Credits **120**

UB School of Engineering
Accelerated BS to MS Degree Program

- This program allows the students to progress more quickly through their coursework by taking additional credits for several semesters and over the summer once they have qualified during their junior year.
- Degree Options
  - B.S. to M.S. in Computer Engineering
  - B.S. to M.S. in Computer Science
  - B.S. to M.S. in Electrical Engineering
  - B.S. to M.S. in Mechanical Engineering
- Transfer students with an earned AS degree in Engineering Science or Computer Science/Engineering can earn a BS degree in 2 years + 1 year for the MS program (versus 2 years) with less time and cost
- Earn a BS and MS in 5 years (versus 6 years)

UB's Stem-Bus-On-Wheels

Transferring Made Easy (For Transfer Students)

- Admission offered for fall and spring start terms
- Online application w/fee waiver for CT community college students
  - bridgeport.edu/apply
- Required documents
  - Official college transcripts (eTranscripts accepted)
  - Proof of high school graduation
  - Essay (optional)
  - Letters of Recommendation (optional)
  - FAFSA(if applying for financial aid)
- Expedited admissions decision
  - Students will have an official decision within two weeks of completing application
- Flexible transfer credit policy
  - Up to 66 from 2yr schools
  - Up to 90 from 4yr schools
- UB joined COT & signed articulation agreements with CoT, GCC, NCC, HCC (& others are work-in-progress) to facilitate transparent transfer of courses via articulation agreements

Domestic Transfer Student Financial Aid

- One of CT's Most Affordable Private Universities
  - Over 96% of students receive aid
  - Average Financial Aid Package = $25,500
- Scholarship Opportunities
  - $10,000-$17,000/year for full-time transfer students

Center for Career Development & Student Employment

- On-Campus Employment – over 600 student jobs per semester (Graduate Assistants & Work Study)
- Career Services - Job Interview & Resume Development Assistance
- Career Fairs and Campus Recruiting
- Job and Internship Listings
- CPT (Curricular Practical Training)
- OPT (Optional Practical Training)

SELECT UB ALUMNI EMPLOYERS

Key UB Academic and Admissions Contacts for COT Members

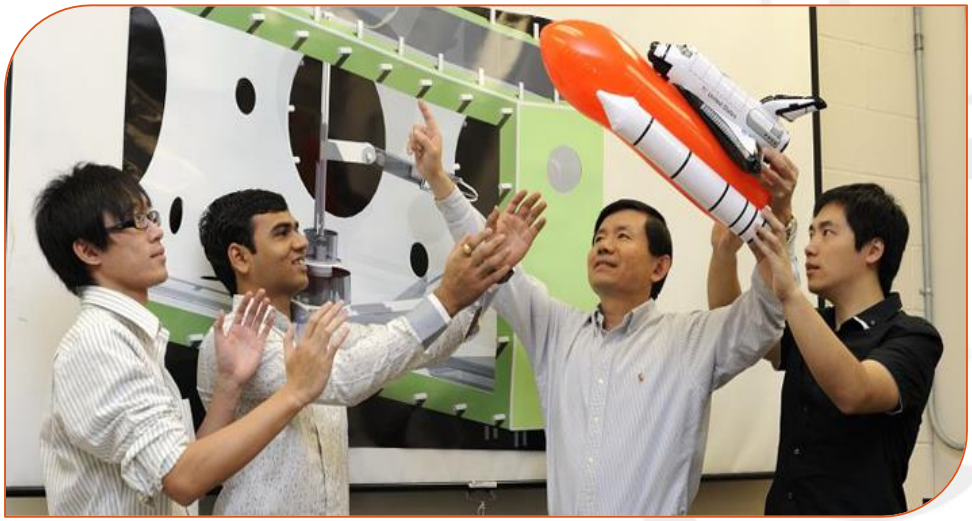
Name	Title/Department	Email	Phone number
Dr. Gad Selig	Dean-Industry Outreach & Business Development	gadselig@bridgeport.edu;	203-576-4870
Dr. Joyce Hu	Professor and Chair, Mechanical Engineering	jjhu@bridgeport.edu	203-576-4757
Dr. Hassan Bajwa	Associate Professor and Chair, Electrical Engineering	hbajwa@bridgeport.edu	203-576-4571
Dr. Ausif Mahmood	Director, School of Engineering and Professor & Chair, Computer Science and Computer Engineering	mahmood@bridgeport.edu	203-576-4737
Dr. Omar Abuzaghleh	Assistant Professor, Engineering & Technology & Program Director, BS in Computer Engineering Technology Degree	oabuzagh@bridgeport.edu	203-576-4578
Jessica Crowley	Director of Domestic Undergraduate Admissions	jessiccr@bridgeport.edu	203-576-4812

Thank you for your time! Any questions?

Contact {Information}

Dr. Gad J. Selig, PMP, COP
Dean, Industry Outreach & Business Development
Graduate Studies and Research Division & School of Engineering
University of Bridgeport
E-mail: gadselig@bridgeport.edu
203-576-4870

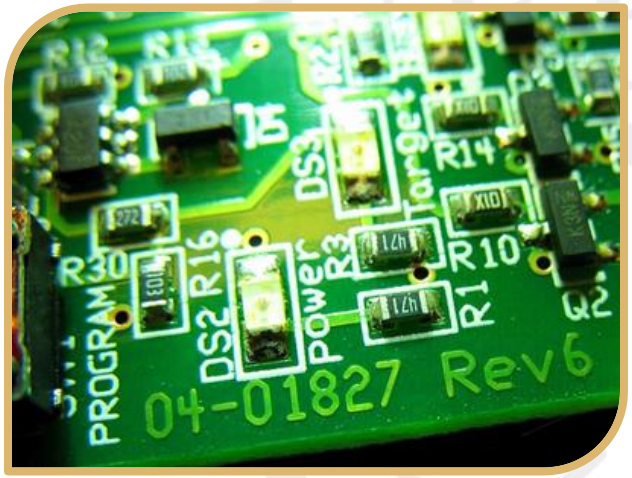
Appendix
Research Areas



UB Undergraduate & Graduate students and faculty in the School of Engineering consistently win national and international research and education competitions and routinely publish in prestigious journals and conferences.

Recent SOE News: http://www.ubengineeringnews.org/

Sample Research Centers & Laboratories (20+)*



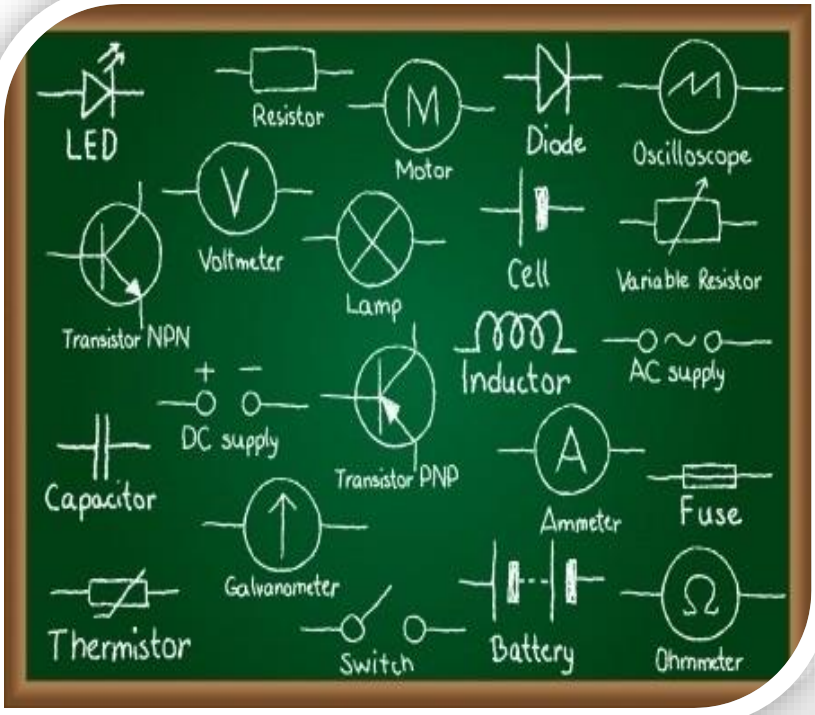
- Advanced Manufacturing and 3D Printing
- Applied Computational Fluid Dynamics Laboratory
- Center for Sustainable Energy and Environment
- Cloud Computing Cluster
- Collaborative Biomedical Research Center
- Controls Laboratory
- CNC Mini Milling Machine Laboratory
- Digital/Biomedical Embedded Systems & Technology Laboratory
- Interdisciplinary Robotics, Intelligent Sensing, and Control Laboratory
- Multimedia Information Group Laboratory
- Nanomaterials & Nanobiomaterials Engineering Laboratory
- PLC, Controls & IC Laboratory
- Renewable Energy Research Laboratory
- Signal Processing Research Group
- Wireless & Mobile Communications Laboratory
- Analytics Intelligence & Big Data Laboratory

* http://www.bridgeport.edu/academics/schools-colleges/school-engineering/research/

Electrical Engineering

Research Areas

- Distributed control and optimization
- Electrical Properties of Plastic/Metal Composites
- Electrical Safety and Electric Accident reconstruction
- Electromagnetic Fields Applied To Lightning
- Electronic Biological Sensors
- Electronic Materials and Devices
- Information processing and control of large-scale distributed systems
- Medical Electronics & Bio-Medical
- Micro-electromechanical Systems (MEMS)
- Micro-sensors and Micro-actuators
- PLC (Programmable Logic Control)
- Superconductors
- Thin-film Solar Cells
- VLSI design and testing



Mechanical Engineering Research Areas

- Additive manufacturing
- Automation control
- Aerodynamics and hydrodynamics in sports
- Biomechanics, biofluids, biomaterials & biomedical device design
- Computational fluid dynamics
- Computer Aided Design/ Engineering/ Manufacturing
- Design optimization
- Finite element analysis
- HVAC
- Laser material processing
- Materials Engineering and Composites
- Mechatronics & robotics
- MEMS & nanotechnology
- Modeling and simulation of manufacturing process
- Rapid prototyping
- Solar energy and fuel cells
- Thermal management of electronic devices and systems
- Vehicle aerodynamics
- Welding

Computer Science & Engineering

Research Areas

- Automation and Manufacturing
- Biomedical Engineering
- Computer Architecture
- Computer Arithmetic
- Computer Networks
- Control Systems
- Digital Signal Processing & Image Processing
- Formal Approaches for Design, Synthesis and Verification
- Microelectronic Design
- Multimedia Data Base Application
- Parallel and Distributed Architectures and Algorithms
- Robotics
- Scalable Web Architectures, SOA, GPS Applications.
- Wireless Communication

Technology Management

Research Areas

- Analytics, Modeling & Simulation
- Bio-Medical/ Bio-Technology and Management
- Information Technology
- Outsourcing and Strategic Sourcing
- Quality Management and Lean Process Management
- Program and Project Management
- Supply Chain Management & Logistics
- Information Technology Strategy, Execution & Governance
- Entrepreneurship, Intrapreneurship & New Venture Creation
- Creating & Sustaining High Performance Global Leaders and Teams
- New Product/Service Development and Commercialization
- Strategic Marketing, Demand Creation, Growth and Innovation
- Manufacturing Management
- Service Management
- Engineering and Science Management

Biomedical Engineering

Research Areas

- Biomedical materials
- Biomimicking and bioinspired materials
- Bioelectronics
- BioMEMS
- Biosignal processing
- Biorobotics
- Bioimage processing
- Ergonomy
- Bioinformatics
- Gene sequencing
- Communication in man-machine interface
- Biosensing
- Tissue Engineering
- Cellular and molecular biology
- Biometrics
- Biomechanics
- Biotechnology

MS – Electrical Engineering Curriculum *

Core Courses	Choice of Concentration Areas
• Core courses are decided by the student pursuing a particular concentration; courses come from a list of almost 100 different courses; student should be guided by the department's research areas • Master's Project or Thesis • Engineering Colloquium (1 credit)	• Digital Signal Processing • Electronic Circuit Design • Electrical Accident Reconstruction • Electrical Materials/ Composites • Energy and Power • Fiber Optics • Medical Electronics • MEMs • Power Systems • Programmable Logic Control (PLC) • Solar Cells • Solar Energy • Sustainable Energy • Very Large Scale Integration (VLSI)
• All courses are at the 400 or 500 level • All courses in EE and Computer Science and Computer Engineering are accepted toward the MSEE • At least 6 EE courses required (project option). 5 EE courses for the thesis option	

*Minimum Total Credits Required = 31 for Graduation

MS – Mechanical Engineering Curriculum *

Core Courses	Choice of Concentration Areas
• Three core courses are selected by the student pursuing a particular concentration as follows: • Advanced Analysis (MATH 401) • Advanced Dynamics (MEEG 454) • Advanced Fluid Dynamics (MEEG 410) • Advanced Heat Transfer (MEEG 463) • Advanced Vibration (MEEG 452) • Applied Thermodynamics (MEEG 462) • Finite Element Methods (MEEG 453) • Master's Project or Thesis • Engineering Colloquium (1 credit)	• Aerospace and Aeronautical Engineering • Biomechanical Engineering • Design Engineering • General Mechanical Engineering • Manufacturing Engineering & Management • Mechanics & Materials • Mechatronics & Automation • Micro & Nano Engineering • Sports Engineering • Thermal Fluid Systems & Sustainable Energy

*Minimum Total Credits Required = 31 for Graduation

MS – Computer Science Curriculum *

Core Courses	Choice of Concentration Areas
• Algorithm Design • Data Base Design • Data and Computer Communications • Graduate Project • Object Oriented Programming Using Software Patterns • Operating Systems • Engineering Colloquium (1 credit)	• Computer Architecture • Computer Communications • Data Base Design/ Analytics/ Big Data • Java Programming • Network Security • Open Source Programming • Robotics & Automation • Services Oriented Architecture • Signal & Image Processing • Software Engineering • Very Large Scale Integration (VLSI) • Windows Programming • Wireless & Mobile Communication

Required Core Courses: 7 Courses for Degree
5 Electives Must Be Chosen
*Minimum Total Credits Required = 34 for Graduation

MS – Computer Engineering Curriculum *

Core Courses	Choice of Concentration Areas
• Advanced Object Oriented Programming Using Software Patterns • Applied Digital Signal Processing • Data and Computer Communications • Graduate Project • Introduction to Computer Architecture • Introduction to VLSI Design or FPGA Synthesis • Engineering Colloquium (1 credit)	• Advanced Applications and Systems Programming • Bio-Medical Engineering • CAD/CAM • Computer and Information Security • Computer Communications and Networking • E-Commerce • Microelectronics and Computer Architecture • Modern Data Base Systems • Network Security • Robotics and Automation • Signal and Image Processing • Software Engineering • Very Large Scale Integration (VLSI) • Wireless and Mobile Communications

Required Core Courses: 7 Courses for Degree
5 Electives Must Be Chosen
*Minimum Total Credits Required = 34 for Graduation

M.S. in Technology Management {Curriculum} *

Core Courses	Choice of Concentration Areas
• Business/ Technology Policy and Strategy – Capstone • Finance, Accounting & Economics for Engineers • Global Program and Project Management • Leadership in Technical Enterprises • Technology Marketing • Statistical Quality Control Techniques • Technical Writing in Communications and Research • Engineering Colloquium (1 credit)	• Bio-Technology Management • Project Management • Information Technology & Big Data • Information & Cyber Security Management • Manufacturing Management • Technology Development • Quality Control & Continuous Improvement • Supply Chain, Logistics & Service Management
Required Courses: 8 Courses for Degree	4 Electives – Can be chosen (3 from one of the above concentrations and 1 from any other concentration.)

*Minimum Total Credits Required = 34 Credits for Graduation.
*MS TM Degrees are offered on-campus and on-line.

MS – Biomedical Engineering Curriculum *

Core Courses	Choice of Concentration Areas
• Core courses are selected by the student pursuing a particular concentration; courses come from a list of several interdisciplinary biomedical engineering courses - students should be guided by the BME program research areas • Master's Thesis • Engineering Colloquium (1 credit)	• Biobased Energy and Power • Bioelectronics and Biomedical Electronics • Bioinformatics • Biomaterials & Biomechanics • Bio-MEMs • Cellular and Molecular Bioengineering • Tissue Engineering • Bioimage Processing
• All courses are at the 400 or 500 level and research project is 600 level • Many courses in EE, Computer Science and Computer Engineering, TM and ME are accepted in MS BME program	

*Minimum Total Credits Required = 34 for Graduation

Ph.D. – Computer Science & Engineering Curriculum *

Program Requirements	Choice of Concentration/ Discipline Areas

• Minimum of ten (10), 3 credit courses, or 24 credit hours in a discipline, including two 600 level courses
• Oral Exam
• Written Comprehensive Exam
• Core Courses
• Ph.D. Dissertation (Minimum 15 credits)
• Teaching Requirement (2 Semesters)
• Publication Requirement
	• Areas of Concentration
	  • Computational Intelligence & Robotics
	  • Computer Architecture & Very Large Scale Integration (VLSI)
	  • Languages & Systems
	  • Parallel Processing & Networking
	
	• Core courses: Select 4 courses from:
	  • CPEG 547 Field Programmable Gate Arrays
	  • CPSC 552 Data Mining
	  • CPEG 560 Advanced Robotics
	  • CPEG 585 Computer Vision
	  • CPEG 562 Cryptography and Cryptanalysis
	  • CPSC 590 Parallel Processing
	  • CPSC 606 Quantum Computing

* Minimum Total Credits Required = 45

Ph.D. in Technology Management

One of only 6 similar programs in USA in 2015 and UB's Ph.D. is the only one that focuses on Technology and New Venture Creation

Core Courses	Choice of Course & Concentration Electives (15 credits – 5 courses selected from Area1 and Area2)
• Five (5) courses of 3 credits each (15 credits) ▪ Exploration in Research Methodologies ▪ Research Design, Analysis and Measurement ▪ Quantitative Research & Analytics ▪ Technology New Venture Creation ▪ Strategic Management of Technology & Innovation • Comprehensive Written Exams – Areas 1 & 2 • Oral Defense of Dissertation Proposal • One semester teaching requirement • One refereed Journal Paper or 2 refereed Conference Papers • Ph.D. Dissertation *(Minimum of 15 Credits)*	*Area 1* - New Technology Venture Creation (Entrepreneurship & Corporate Venturing) Plus *one* of the Technology Concentrations listed under Area 2. *Area 2* - Select Current & Emerging Technologies (Technology Concentrations): • Biotech & Biomedical Technology, Systems & Processes • Information Analytics, Technology & Decision Support Systems • Manufacturing, Supply Chain and Logistics Technology, Systems and Processes

Students can choose to focus on three study options*:

Focus on Area 1: 3 courses from Area 1 and 2 courses from Area 2 (both from one technology concentration)
Focus on Area 2: 1 course from Area 1 and 4 courses from Area 2 (from one technology concentration)
Combination of Areas 1 and 2: 2 Courses from Area 1 and 3 Courses from Area 2 (from one technology concentration)

***Minimum Total Credits Required = 45**