Watchmaking and Microtechnology

Mission

The Watchmaking & Microtechnology department prepares the graduate for the modern working environment by successfully merging modern technology with traditional techniques to meet current industry standards.

Vision

The Watchmaking & Microtechnology program will be:

- Recognized by the industry as the premier establishment of watchmaker training by preparing the graduate to excel in the profession, imparting a passion for continued learning, and by providing a consistent example of professionalism in the workplace;

- Focused on producing graduates that are consistently the test score leaders in the internationally recognized WOSTEP watchmaker certification program;

- The model of efficiency and organization in watchmaking facilities worldwide;

- Recognized by the graduate as the best invested two years of all their educational activities;

- Acknowledged for producing graduates with an exemplary work-ethic that enhances hire-ability and success in the workplace.

Core Values

Excellence – We seek excellence in all our endeavors, and we are committed to continuous improvement.

Intellectual Freedom – We believe in ethical and scholarly questioning in an environment that respects the rights of all to freely pursue knowledge.

Integrity – We are committed to the principles of truth and honesty, and we will be equitable, ethical, and professional.

Service – We believe that serving others is a noble and worthy endeavor.

Diversity – We respect others and value diversity of opinion, freedom of expression, and other ethnic and cultural backgrounds.

Stewardship of Resources – We are dedicated to the efficient and effective use of resources. We accept the responsibility of the public's trust and are accountable for our actions.

Goals, Critical Success Factors, Objectives, and Strategies

Goal One: Recruit, retain, certify, and graduate no fewer than 10 students per admission period in the Watchmaking & Microtechnology department.

Critical Success Factors:

- Enrollment of 12 students per admission period
- Graduation rate 80%
- WOSTEP (industry) certification rate 80%

Objective*:*

Objective 1.1: Establish and maintain a system of recruitment that effectively communicates the level of commitment by the student necessary to complete the program with a degree and WOSTEP certification.

Strategies:

- Supplement Web site to include current information regarding program requirements including class schedule and other indications of required commitment.
- Increase exposure of program by producing articles for local, national, and international magazines and other publications.
- Solicit and accept candidates that meet the following minimum eligibility requirements:
  - Candidate must score 40 (raw score) or higher on Bennett Mechanical test.
  - Candidate must score MEETS or EXCEEDS on 80% of all phases of Valpar VDM 305 Angled Pin Placement test.
  - Candidate must score 19 or better on all ACT sub-tests or make the following minimum scores on a nationally-normed academic computerized placement test (ACCUPLACER)
  - Reading comprehension 77
  - Sentence skills 80
  - Elementary algebra 56
  - Candidate must receive positive recommendations from participation in interview sessions with representatives of the employer advisory committee, the program faculty and the program supervisor.

Goal Two: Standardize curricula across entire Watchmaking & Microtechnology program implementing the WOSTEP (industry) standards guide in program organization, lesson organization, demonstration, and theory delivery.

Critical Success Factors:

- All practical demonstrations will be documented in a format that is consistent with industry standards while meeting departmental needs by January, 2009
- All theory presentations will be documented in format that is consistent with industry standards while meeting departmental needs by January, 2009
- Classroom space and storage space will be organized in a manner consistent with industry standards while meeting departmental needs by January 2009
- All faculty will be either a graduate of the 3000 hour WOSTEP (industry) program or a graduate of the WOSTEP (industry) Refresher course by January 2005
- All new faculty hires will present evidence of a minimum of 5 years field experience in high grade watch repair
- All new faculty hires will present evidence of graduation from WOSTEP 3000 hour program or WOSTEP Refresher course

Objectives*:*

Objective 2.1: Implement the WOSTEP watchmaking curricula into the higher education learning environment by producing written instructional guidelines with lesson plans that promote a consistent learning experience while providing the academic freedom for each instructor to continually enhance his or her technical and instructional skills.

Strategies:

- Leverage current resources by consistently documenting classroom implementation of the WOSTEP program curricula and testing procedures. Documentation for each course should include but not be limited to a separate and complete chronologically organized document consisting of the following:
    - Course Syllabus.
    - Presentation instruments.
    - Handout masters.
    - Theoretical assessment instruments.
    - Practical *(hands-on*) assessment instruments.
    - Inspection assessment instruments.
    - Technical documentation.
    - Safety instructions and MSDS as appropriate.

Objective 2.2: Arrange classroom space to maximize organization supportive of curricula delivery.

Strategy:

- Leverage current resources by remodeling floor space into one dedicated micromechanics workshop, three classrooms, and strategically placed storage and office spaces.

Objective 2.3 Maintain high industry-related standards in faculty credentials ensuring a consistent and well experienced learning environment for the student.

Strategies:

- Ensure instructor qualifications by advertising the following minimum requirements, but not be limited to, for new faculty hires:
- Minimum of 5 years field experience in high-grade watch repair.
- WOSTEP 3000 Hour Program or WOSTEP Refresher Course diploma.

Goal Three: Maintain and enhance instructional integrity by continuing to seek and participate in industry related professional development opportunities, and pedagogical development opportunities, both at home and abroad for all instructors.

Critical Success Factors:

- All non-degreed faculty are required to achieve a minimum of 12 credit hours per year towards their baccalaureate degree until accomplished
- Participation in WOSTEP instructor training sessions by registering at least one instructor per year for advanced watchmaker and instructor training in Neuchâtel, Switzerland

***Objective**:*

Objective 3.1 All Watchmaking and Microtechnology faculty will be degreed in a technical or educational program.

Strategies:

- Faculty will complete degree by enrolling in a minimum of 12 hours per year in an academic program approved by the division chair.
- Faculty will participate in training delivered by WOSTEP in Neuchâtel, Switzerland whether at home or abroad as the situation dictates.

Goal Four: Expand the maximum number of students in the Watchmaking & Microtechnology program.

Critical Success Factors:

- Increase total student enrollment from the current maximum of 24 students to a maximum total of 36 students before or by January 2009

Objectives*:*

Objective 4.1 Increase tooling, benches, classroom space, and instructional staff to accommodate a maximum enrollment of 36 students in the program.

Strategies:

- Define program needs for a maximum enrollment of 36 students.
- Seek WOSTEP board approval for increase in enrollment for the purpose of encouraging watch companies to support program expansion.
- Seek financial support from industry to procure resources necessary to maximize enrollment at 36 students.
- Leverage current resources to implement structural and programmatic changes on a limited basis for the purpose of encouraging further industry participation in program expansion.

Objective 4.2 Increase prospective student pool by enhancing current recruiting programs and introducing additional recruiting programs.

Strategies:

- Increase recruitment efforts by implementing or increasing activity using the following methods, but not limited to:
    - Web site update for program
    - Promotion of program in print media
    - Promotion of program at industry conventions
    - Promotion of program at speaking engagements
    - Promotion of program at high school career days
    - Promotion of program to undecided majors
    - Promotion of program at Workforce centers

Goal Five: Foster and maintain key industry partnerships in the Watchmaking & Microtechnology program.

Critical Success Factors:

- Extension of industry financial support beyond the current contract
- Involvement by the industry in biannual Advisory Board Meetings

***Objective**:*

Objective 5.1 Continue to enhance and maintain the Watchmaking Industry Advisory Board's role in promotion, finances, recruitment, retention, and supplemental educational opportunities for the department, faculty, and students of the watchmaking program.

Strategies:

- Involve key industry partners in, but not limited to, the following program activities:
- Promotion of the watchmaking program whenever opportunities arise.
- Financial assistance to meet the goals of the watchmaking program.
- Recruitment of students and interviews of candidates for the program to assess their likelihood of success in the industry and their likelihood of success in the program.
- Intervention by the advisors as necessary to aid in the retention of students that may be wavering in their level of commitment.
- Provide guest speakers and unique learning opportunities for the faculty and students in the watchmaking program.

Goal Six: Pursue excellence in the learning environment by enhancing classroom technology as measured by student success in program completion and comparative scoring analysis.

Critical Success Factors:

- Install 2 Schaublin lathes in dedicated Micromechanics lab by January 2007
- Install high magnification cameras with monitors in all Watchmaking & Microtechnology classrooms by January 2008
- Install LCD projectors and screens in all Watchmaking & Microtechnology classrooms by January 2009
- Consistently produce graduates that score above continental averages on the internationally recognized WOSTEP watchmaker certification program

Objectives:

Objective 6.1 Enhance the technological level of the learning environment for the purpose of creating world-class graduates for a world-wide industry.

Strategies:

- Leverage the current resources of industry support and institutional support for the purchase of presentation equipment necessary to implement technological upgrades.
- Seek continuation of industry financial and technical support to implement shop equipment technological upgrades.

Objective 6.2 Consistently produce graduates with WOSTEP test scores above the national average.

Strategy:

- Tabulate and dissect test results for the purpose of comparison to other WOSTEP program graduates in North America.