Effective: Fall 2012 Last Updated: 7/1/14

College of Applied Science and Technology MECHANICAL ENGINEERING TECHNOLOGY 292104BS

Bachelor of Science Degree

http://www.uakron.edu/dotAsset/1817479.pdf

Accredited by the Technology Accreditation Commission of ABET, http://www.abet.org

Course work from an accredited institution in Mechanical Engineering Technology or in a related program is a requirement to pursue the Mechanical Engineering Technology Bachelor of Science Degree. An Associate of Applied Science in Mechanical Engineering Technology is required prior to completing the baccalaureate. Please refer to the Mechanical Engineering Technology, Associate of Applied Science Curriculum Guide for further information.

The following is intended only as a guide to be used in conjunction with your adviser. Official degree requirements are established at the time of transfer and admission to the **College of Applied Science & Technology**. Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

<u>Italicized</u> courses fulfill General Education requirements. Unless a course is specified, refer to the General Education guide at http://www.uakron.edu/advising/docs/General_Education_Guide.pdf.

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|--|---|---------|--|--|--|
| 3 rd Year | Fall Semester | Credits | Prerequisites | | |
| 2030:356 | Technical Calculus II | 3 | 2030:255 or equivalent with grade of C- or | | |
| | | | placement by Advisor | | |
| 2820:310 | Programming for Technologists (Sch. Lab) | 2 | 2030:255, 2820:131 | | |
| 2820:111 | Introductory Chemistry (Sch. Lab) (Note a.) | 3 | 2030:152 | | |
| 2860:370 | Survey of Electronics I (Sch. Lab) (Note a.) | 3 | 2820:163 | | |
| 2920:344 | Dynamics (Note a.) | 3 | 2030:255, 2920:243, 2990:125 | | |
| | Technical Elective (Note c.) | 3 | | | |
| Total | | 17 | | | |
| 3 rd Year | Spring Semester | | | | |
| 2820:112 | Introductory & Analytical Chemistry (Note b.) | 3 | 2820:111 | | |
| 2860:371 | Survey of Electronics II (Sch. Lab) (Note b.) | 3 | 2860:370 | | |
| 2000.371 | -OR- | 3 | 2000.370 | | |
| 2860:242 | Machinery and Controls (Note b.) | | 2860:120, and 121 or 370 (previously 270) | | |
| 2920:346 | Mechanical Design III (Sch. Lab) (Note b.) | 4 | 2920:344, 2920:245, 2820:310 | | |
| 2920:347 | Production Machinery & Processes (Note b.) | 3 | 2920:245; 2030:255 | | |
| 2020:011 | Area Studies/Cultural Diversity Requirement | 2 | 2020:121 or equivalent | | |
| | Technical Elective (Note c.) | 2 | | | |
| Total | (************************************** | 17 | | | |
| 4th war an | F-II O | | | | |
| 4 th Year | Fall Semester | 1 2 | 2000-270 (former alls 2000-270) | | |
| 2920:405 | Ind. Machine Control (Sch. Lab) (Note a.) | 3 | 2860:370 (formerly 2860:270) | | |
| 2920:310 | Economics of Technology | 3 | 64 credits or permission 2920:249, 2920:251, 2030:255 | | |
| 2920:365 | Applied Thermal Energy II (Note a.) | 3 | , , | | |
| 2920:370 2920:490 | Plastics Design & Processing (Note a.) Senior MET Seminar (Note a.) | 1 | 2820:111 or higher Senior standing | | |
| 3400:210 | Humanities in the Western Tradition | 4 | 32 credits & 3300:112 or equivalent | | |
| Total | Humanides in the Western Tradition | 17 | 32 credits & 3300.112 or equivalent | | |
| Total | | 17 | | | |
| 4 th Year | Spring Semester | | | | |
| 2920:402 | Mechanical Projects (Note b.) | 1 | Senior standing | | |
| 2880:241 | Intro. to Quality Assurance (Sch. Lab) | 3 | 2030:152, 2880:100 or permission | | |
| 2920:470 | Plastics Processing & Testing (Note b.) | 2 | 2920:370 or permission | | |
| | Area Studies/Cultural Diversity Requirement | 2 | 2020:121 or equivalent | | |
| | Technical Elective (Note c.) | 3 | | | |
| | Humanities Requirement | 6 | 3400:210 or 3400:221 | | |
| Total | | 17 | | | |

Total Credits for BS Degree - 138

Third and Fourth Year Credits

POLICY ALERT: By the end of your first 48 credit hours attempted, you must have completed your REQUIRED General Education English, Math, and Communications (Speech) requirements.

YOU MUST HAVE A MINIMUM GPA OF 2.0 TO GRADUATE WITH THIS DEGREE

NOTES

Note a. Traditionally Fall course (See Program Contact)

Note b. Traditionally Spring course (See Program Contact)

Note c. Mechanical Engineering Technology Approved Technical Electives: availability dependent on enrollment demands and classroom availability

| 2920:290 | Special Topics: Mechanical Engineering Technology | 1-2 | Department permission |
|----------|--|-----|--|
| 2920:498 | Independent Study in Mechanical Engineering Technology | 1-4 | Department permission |
| 2030:345 | Technical Data Analysis | 2 | 2030:154 or equivalent with a grade of C- or better, or placement test |
| 2870:301 | Computer Control of Automated Systems | 3 | • |
| 2870:311 | Facilities Planning | 3 | 2940:180 or 2940:210 or permission |
| 2870:332 | Management of Technology Based Operations | 3 | · |
| 2870:441 | Advanced Quality Practices | 3 | 2880:241 or permission. |
| 2870:448 | CNC Programming II | 3 | 2870:348 |
| 2880:130 | Work Measurement & Cost Estimating | 3 | 2880:100 |
| 2880:201 | Robotics & Automated Manufacturing | 3 | 2880:100 or permission |
| 2880:211 | Computerized Manufacturing Control | 3 | 2880:100 |
| 2880:232 | Labor Management Relations | 3 | 2880:100 |
| 2940:122 | Technical Drawing II | 3 | 2940:121, 210 |
| 2940:170 | Surveying Drafting | 3 | Co-requisite: 2030:152 or permission |
| 2940:211 | Computer Aided Drawing II | 3 | 2940:210 |
| 2940:230 | Mechanical Systems Drafting | 3 | 2940:122 |
| 2940:245 | Structural Drafting | 2 | 2940:121, 210 or equivalent |
| 2980:101 | Basic Surveying I | 2 | Co-requisites: 2030:152 |
| 2990:462 | Mechanical Service Systems | 3 | |
| 2990:463 | Electrical Service Systems | 3 | |
| 3460:126 | Introduction to Visual Basic Programming | 3 | Completion of 3450:100 with a grade of C- or better or placement |
| 3460:208 | Introduction to C++ Programming | 3 | |

CONTACT INFORMATION

Program Director Mr. Roland Arter, Schrank Hall South 123E, 330-972-6784 or arter@uakron.edu

CAREER OPPORTUNITIES

The bachelor degree holder, along with maturity and experience gained on the job as a technologist, may rise to designer, head of test laboratory, service manager, tool room supervisor, production foreman, plant maintenance supervisor, and with additional education and specialized training, he/she may reach positions of middle management responsibility. He/she is the liaison between the engineer and shop.

Other opportunities exist in cost estimation, purchasing, power generation, and almost any area that requires a liaison that speaks and understands the language of technology.

Advanced technologies, coupled with the need to update and improve manufacturing facilities and product design, will fuel the demand of well-trained professionals in this field.

Placement or Optional Cooperative Education

Co-op work experiences are available on an optional basis in this academic program. To obtain additional information contact the Career Center regarding these opportunities.

For additional information regarding career opportunities in the Electronic Engineering Technology field, please visit the Bureau of Labor Statistics at www.bls.gov or the Career Center at the Student Union, room 211, (330-972-7747) http://www.uakron.edu/career

TRANSFER

A student can complete the transfer process by meeting with an Academic Advisor in the College in which they reside. Thorman/Lukach)