Overview
Completion of the following curriculum will satisfy the requirements for the Associate in Science degree at a Kentucky Community and Technical College System institution and leads to the Bachelor of Science in Mechanical and Manufacturing Engineering Technology degree at Northern Kentucky University.

Applying to the KCTCS2NKU Program
Students can apply to participate in the pathway program by completing the online application on the NKU transfer webpage. Students must be enrolled in at least six credit hours at a KCTCS institution, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at their KCTCS institution.

Degree Requirements for KCTCS
1) Completion of minimum 60 credit hours, 2) minimum cumulative GPA 2.0, 3) minimum of 15 credit hours earned at the institution awarding the degree, 4) cultural studies course, 5) demonstration of digital literacy, 6) college success requirement.

Admission Requirements to NKU
Students completing an associate degree with a cumulative GPA of 2.0 or higher will be accepted into NKU.

This program provides students with both the knowledge and skills needed to succeed as engineers in today’s industry. Students are required to co-op in industry stating with their second year, which often continues and leads to full-time employment. Together the study of engineering principles, design is the cornerstone of the mechanical and manufacturing engineering technology degree program.

The MMET program is accredited by the Engineering Technology Accreditation Commission of ABET (http://www.abet.org).
Degree Requirements for NKU
To earn a bachelor’s degree at NKU, students must complete a minimum of 120 credit hours with at least 45 credit hours numbered 300 and above. In addition, at least 25% of the credit hours required for the degree and the last 30 credit hours must be completed at NKU. Students must have an overall GPA of 2.0 and meet all prerequisites for courses and requirements for the major. A minor is not required for this major.

General Transfer Information
Students must complete the online application to NKU. There is no application fee for students who are transferring from a KCTCS institution.

KCTCS Scholars Award: Students who are KY residents transferring directly from a KCTCS institution with at least 36 hours from that institution and minimum GPA of 3.0, were never enrolled as a degree-seeking student at NKU, and will be enrolled in at least 12 credit hours both fall and spring semester are eligible for a limited number of $2,500 annual scholarships ($1,250 per fall and spring). Students must gain admission to NKU by June 15 for fall and November 1 for spring to be eligible for a possible scholarship. Online accelerated programs are not eligible for the KCTCS Scholars Award.

KCTCS AS TO NKU BS IN MECHANICAL AND MANUFACTURING ENGINEERING TECHNOLOGY
CHECKLIST
Kentucky Community and Technical College System

Category 1: KCTCS General Education Core Requirements (34 hours)

<table>
<thead>
<tr>
<th>KCTCS Course</th>
<th>Course or Category</th>
<th>Credits</th>
<th>NKU Course</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I (WC)</td>
<td>3</td>
<td>ENG 101</td>
<td></td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II (WC)</td>
<td>3</td>
<td>ENG 102</td>
<td></td>
</tr>
<tr>
<td>COM 181 or COM 252</td>
<td>Basic Public Speaking (OC) or Introduction to Interpersonal Communications (OC)</td>
<td>3</td>
<td>CMST 110 CMST 220</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus (QR)</td>
<td>5</td>
<td>MAT 103 + MAT 119</td>
<td></td>
</tr>
<tr>
<td>STA 151 + STA 251 or STA 220</td>
<td>Applied Statistics Sequence or Statistics (QR)</td>
<td>3-6</td>
<td>STA 205</td>
<td></td>
</tr>
<tr>
<td>CHE 170/ CHE 175</td>
<td>General College Chemistry I and General College Chemistry Laboratory I (SL)</td>
<td>5</td>
<td>CHE 120/ CHE 120L</td>
<td></td>
</tr>
<tr>
<td>TBS XXX</td>
<td>Social Behavioral Science Course (SB)</td>
<td>3</td>
<td>TBD XXX</td>
<td></td>
</tr>
<tr>
<td>TBS XXX</td>
<td>Social Behavioral Science Course (SB)</td>
<td>3</td>
<td>TBD XXX</td>
<td></td>
</tr>
<tr>
<td>TBS XXX</td>
<td>Arts &amp; Humanities (AH) – Heritage</td>
<td>3</td>
<td>TBD XXX</td>
<td></td>
</tr>
<tr>
<td>TBS XXX</td>
<td>Arts &amp; Humanities (AH) – Humanities</td>
<td>3</td>
<td>TBD XXX</td>
<td></td>
</tr>
</tbody>
</table>

**Subtotal General Education Core Courses 34-37**

TBS XXX means to be selected by KCTCS student.
TBD XXX means to be determined by NKU based on course selected.

- Students who are calculus-ready are not required to take pre-calculus.
- One of these courses must be selected from the KCTCS identified Cultural Studies course list, indicate by placing (CS) next to the course name in Category 1 or 2 table.
## Category 2: KCTCS AS Requirements (10 hours)

<table>
<thead>
<tr>
<th>KCTCS Course</th>
<th>Course or Category</th>
<th>Credits</th>
<th>NKU Course</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 175</td>
<td>Calculus I</td>
<td>5</td>
<td>MAT 129</td>
<td></td>
</tr>
<tr>
<td>PHY 201/202</td>
<td>College Physics/College Physics Laboratory I</td>
<td>5</td>
<td>PHY 211</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal AS Requirement Courses</strong></td>
<td><strong>10</strong></td>
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</table>

## Category 3: KCTCS Electives (16 hours)

<table>
<thead>
<tr>
<th>KCTCS Course</th>
<th>Course or Category</th>
<th>Credits</th>
<th>NKU Course</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First-Year Experience</td>
<td>0-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
<td>EGT 212</td>
<td></td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
<td>EGT 161</td>
<td></td>
</tr>
<tr>
<td>PHY 203/204</td>
<td>College Physics/College Physics Laboratory II</td>
<td>5</td>
<td>PHY 213</td>
<td></td>
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<tr>
<td>ELT 201</td>
<td>Statics and Strength of Materials</td>
<td>3</td>
<td>EGT 300</td>
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<td><strong>Subtotal Elective Courses</strong></td>
<td><strong>16-19</strong></td>
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<td></td>
<td><strong>TOTAL Associate Degree Hours</strong></td>
<td><strong>60-66</strong></td>
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## Northern Kentucky University

### Category 4: Major Requirements for BS in Mechanical and Manufacturing Engineering Technology

<table>
<thead>
<tr>
<th>NKU Course</th>
<th>Course</th>
<th>Credits</th>
<th>KCTCS Course</th>
<th>Taken at KCTCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 130</td>
<td>Chemistry: An Engineering Approach</td>
<td>4</td>
<td>Waived by CHE 170/175</td>
<td>x</td>
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<tr>
<td>CHE 130L</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>MAT 119</td>
<td>Precalculus Mathematics</td>
<td>3</td>
<td>MAT 171</td>
<td>x</td>
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<tr>
<td>MAT 128 &amp;</td>
<td>Calculus A &amp; Calculus B or Calculus I</td>
<td>4-6</td>
<td>MAT 175</td>
<td>x</td>
</tr>
<tr>
<td>MAT 227 or</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 129</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 211</td>
<td>General Physics with Laboratory I</td>
<td>5</td>
<td>PHY 201/202</td>
<td>x</td>
</tr>
<tr>
<td>PHY 213</td>
<td>General Physics with Laboratory II</td>
<td>5</td>
<td>PHY 203/204</td>
<td>x</td>
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<tr>
<td>STA 205</td>
<td>Statistical Methods</td>
<td>3</td>
<td>STA 220 or STA 151+ STA 251</td>
<td>x</td>
</tr>
<tr>
<td>EGT 116</td>
<td>Introduction to Manufacturing</td>
<td>3</td>
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<td></td>
</tr>
<tr>
<td>EGT 161</td>
<td>DC Circuit Analysis</td>
<td>3</td>
<td>EGT 110</td>
<td>x</td>
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<tr>
<td>EGT 211</td>
<td>Quality Control</td>
<td>3</td>
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<tr>
<td>EGT 212</td>
<td>Computer-Aided Drafting and Design</td>
<td>3</td>
<td>CAD 100</td>
<td>x</td>
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<tr>
<td>EGT 261</td>
<td>Engineering Materials</td>
<td>3</td>
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<tr>
<td>EGT 265</td>
<td>Manufacturing Processes and Metrology</td>
<td>3</td>
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<tr>
<td>EGT 267</td>
<td>Programming for Engineering Applications</td>
<td>3</td>
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<tr>
<td>EGT 300</td>
<td>Statics and Strength of Materials</td>
<td>3</td>
<td>EGT 201</td>
<td>x</td>
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<tr>
<td>EGT 301</td>
<td>Cooperative Education in Engineering Technology</td>
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<tr>
<td>EGT 310</td>
<td>Project Management and Problem Solving</td>
<td>3</td>
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<tr>
<td>EGT 317</td>
<td>Introduction to Capstone Project in EGT</td>
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<tr>
<td>NKU Course</td>
<td>Course</td>
<td>Credits</td>
<td>KCTCS Course</td>
<td>Taken at KCTCS</td>
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<tr>
<td>EGT 318</td>
<td>Introduction to Nanotechnology</td>
<td>3</td>
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<tr>
<td>EGT 320</td>
<td>Robotic Systems and Material Handling</td>
<td>3</td>
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<tr>
<td>EGT 340</td>
<td>Applied Dynamics</td>
<td>3</td>
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<tr>
<td>EGT 361</td>
<td>Fluid Power</td>
<td>3</td>
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<tr>
<td>EGT 365</td>
<td>CNC &amp; Manufacturing Process Planning</td>
<td>3</td>
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<tr>
<td>EGT 405</td>
<td>Metrology and Geometric Tolerancing</td>
<td>3</td>
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<tr>
<td>EGT 417</td>
<td>Senior Design in Technology</td>
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<tr>
<td>EGT 450</td>
<td>Thermodynamics and Heat Transfer</td>
<td>3</td>
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<tr>
<td>EGT 465</td>
<td>Automated Manufacturing Systems</td>
<td>3</td>
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<tr>
<td>EGT 480</td>
<td>Machine Design</td>
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<td>Select 2:</td>
<td>Select six credit hours from the following:</td>
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<tr>
<td>EGT 260</td>
<td>Industrial Standards, Safety, and Codes</td>
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<tr>
<td>EGT 280</td>
<td>Introduction to Microtechnology</td>
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<tr>
<td>EGT 362</td>
<td>Tool Design and Computer Aided Manufacturing</td>
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<tr>
<td>EGT 386</td>
<td>Electro-Mechanical Instrumentation and Control</td>
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<tr>
<td>EGT 411</td>
<td>Quality Assurance and Auditing</td>
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<tr>
<td>EGT 423</td>
<td>Planning and Design of Industrial Facilities</td>
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<tr>
<td>Select a track:</td>
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<tr>
<td>EGT 412</td>
<td>Advanced CADD</td>
<td>6</td>
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<tr>
<td>EGT 462</td>
<td>Finite Element Modeling</td>
<td></td>
<td></td>
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<tr>
<td>EGT 321</td>
<td>Productivity Management, Scheduling, and Planning</td>
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<tr>
<td>EGT 341</td>
<td>Integrated Resource Management</td>
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</tbody>
</table>

**Subtotal Major Credit Hours at NKU**: 63
**Subtotal Major Credit Hours at KCTCS**: 33
**Total Major Credit Hours**: 96
**Total Baccalaureate Degree Credit Hours**: 126-129

Updated November 2019