

Industrial Maintenance Technology

**Associate of Applied Science
Industrial Maintenance Technology**

Industrial Maintenance Track 470303701

Program Coordinator: Robbie Graves, (606)783-1538 ext. 66513 Montgomery Campus

Email: robbie.graves@kctcs.edu

Student Name _____ **Student ID #** _____

[Academic Plan Code: 4703034039; Academic Program Code: ENTC]

Industrial Maintenance Technology - 4703034049

| General Education | Cr. Hours | Cr. Earned | |
|--|------------------|-------------------|--|
| ENG101 Writing I | 3 | | |
| Natural Science | 3 | | |
| Heritage/Humanities | 3 | | |
| Social/Behavioral Sciences | 3 | | |
| Oral Communication | 3 | | |
| MAT 116 Technical Mathematics OR Higher | 3 | | |
| Subtotal General Education | 18 | | |

| Technical Core | Cr. Hours | Cr. Earned |
|---|------------------|-------------------|
| Computer/Digital Literacy | 3 | |
| BRX 120 Basic Blueprint Reading OR | 3 | |
| BRX 110 Basic Blueprint Reading for Machinist OR | (2) | |
| ELT 102 Blueprint Reading | (2) | |
| FPX 100 Fluid Power AND | 3 | |
| FPX 101 Fluid Power Lab OR | 2 | |
| ELT 265 Applied Fluid Power | (3) | |
| IMT 110 IM Electrical Principles AND | 3 | |
| IMT 111 IM Electrical Principles Lab OR | 2 | |
| ELT 110 Circuits I OR | (5) | |
| EET119 Basic Electricity | (5) | |
| IMT 150 Maintaining Industrial Equipment I AND | 3 | |
| IMT 151 Maintaining Industrial Equipment I Lab | 2 | |
| IMT 220 IM Electrical Motor Controls I AND | 3 | |
| IMT 221 IM Electrical Motor Controls I Lab OR | 2 | |
| EET 270 Electrical Motor Controls I AND | (2) | |
| EET 271 Electrical Motor Controls I Lab OR | (2) | |
| ELT 244 Electrical Machinery and Controls OR | (4) | |
| IMT 120 IM Rotating Machinery AND | (3) | |
| IMT 121 IM Rotating Machinery Lab OR | (2) | |
| EET 264 Rotating Machinery AND | (2) | |
| EET 265 Rotating Machinery Lab | (2) | |
| IMT 100 Welding for Maintenance AND | 3 | |
| IMT 101 Welding for Maintenance Lab OR | 2 | |
| WLD 120 Shielded Metal Arc Welding AND | (2) | |
| WLD121 Shielded Metal Arc Welding Lab | (3) | |
| WLD140 Gas Metal Arc Welding AND | (2) | |

| | | |
|--|--------------|--|
| WLD141 Gas Metal Arc Welding Lab | (3) | |
| WLD 152 Basic Welding B | (5) | |
| IMT289 Industrial Maintenance Technology Capstone | 1 | |
| | | |
| Subtotal Core | 28-32 | |
| Technical Electives 18 (Eighteen credit hours of electives must be taken from the approved list. This list is not all inclusive. Electives may include BRX, ELT, FPX, IMT, EET, and WLD; other technical elective courses may be taken with the approval of the program coordinator.) | | |
| Technical Electives* | 18 | |
| Total Credits | 64-68 | |

Industrial Maintenance Technology 470303701

**Associate of Applied Science
Advanced Manufacturing Technician**

Program Coordinator: Robbie Graves, (606)783-1538 ext. 66513 Montgomery Campus

Email: robbie.graves@kctcs.edu

Student Name _____ Student ID # _____

[Academic Plan Code: 4703034039; Academic Program Code: ENTC]

Advanced Manufacturing Technician Track 470303702

| General Education | Cr. Hours | Cr. Earned | |
|--|------------------|-------------------|--|
| ENG101 Writing I | 3 | | |
| Natural Science | 3 | | |
| Heritage/Humanities | 3 | | |
| Social/Behavioral Sciences | 3 | | |
| Oral Communication | 3 | | |
| MAT 116 Technical Mathematics OR Higher | 3 | | |
| Subtotal General Education | 18 | | |

| Technical Core | Cr. Hours | Cr. Earned |
|---|------------------|-------------------|
| Computer/Digital Literacy | 3 | |
| BRX 120 Basic Blueprint Reading | 3 | |
| CMM110 Fundamentals of Machine Tool A | 2 | |
| EET 270 Electrical Motor Controls I AND | 2 | |
| EET 271 Electrical Motor Controls I Lab | 2 | |
| EET 272 Electrical Motor Controls II AND | 2 | |
| EET273 Electrical Motor Controls II Lab | 2 | |
| EET 276 Programmable Logic Controllers AND | 2 | |
| EET 277 Programmable Logic Controllers | 2 | |
| FPX100 Fluid Power AND | 3 | |
| FPX 101 Fluid Power Lab | 2 | |
| IET1301 Safety Culture | 1 | |
| IET1302 5s | 1 | |
| IET1303 Total Production System Maintenance | 1 | |
| IET1304 Problem Solving | 1 | |
| IET1305 Maintenance Reliability | 1 | |
| IMT 100 Welding for Maintenance AND | 3 | |
| IMT 101 Welding for Maintenance Lab | 2 | |
| IMT110 Industrial Maintenance Electrical Principles AND | 3 | |
| IMT111 Industrial Maintenance Electrical Principles Lab | 2 | |
| IMT 150 Maintaining Industrial Equipment I AND | 3 | |
| IMT 151 Maintaining Industrial Equipment I Lab | 2 | |
| IMT198 Practicum | 2 | |
| IMT200 Industrial Robotics & Robotic Maintenance | 4 | |
| IMT289 Industrial Maintenance Technology Capstone | 1 | |
| Technical Electives 18 (Eighteen credit hours of electives must be taken from the approved list. This list is not all inclusive. Electives may include BRX, ELT, FPX, IMT, EET, and WLD; other technical elective courses may be taken with the approval of the program coordinator.) | 18 | |
| Subtotal | 53 | |
| Total | 71 | |

Program Coordinator: Robbie Graves, (606)783-1538 ext. 66513 Montgomery Campus

Email: robbie.graves@kctcs.edu

Student Name _____ Student ID # _____

[Academic Plan Code: 4703034039; Academic Program Code: ENTIC]

Automotive Manufacturing Technical Education Collaborative (AMTEC) Track-470303703

| General Education | Cr. Hours | Cr. Earned | |
|---|-----------|------------|--|
| ENG101 Writing I | 3 | | |
| Natural Science | 3 | | |
| Heritage/Humanities | 3 | | |
| Social/Behavioral Sciences | 3 | | |
| Oral Communication | 3 | | |
| MAT 116 Technical Mathematics OR Higher | 3 | | |
| Subtotal General Education | 18 | | |

| Technical Core | Cr. Hours | Cr. Earned | |
|--|-----------|------------|--|
| Computer/Digital Literacy | 3 | | |
| BRX 110 Basic Blueprint Reading for Machinist OR | (2) | | |
| BRX 120 Basic Blueprint Reading OR | 3 | | |
| ELT 102 Blueprint Reading | (2) | | |
| FPX 100 Fluid Power AND | 3 | | |
| FPX 101 Fluid Power Lab OR | 2 | | |
| ELT 265 Applied Fluid Power | (3) | | |
| IMT 110 IM Electrical Principles AND | 3 | | |
| IMT 111 IM Electrical Principles Lab OR | 2 | | |
| ELT 110 Circuits I OR | (5) | | |
| EET119 Basic Electricity | (5) | | |
| IMT 150 Maintaining Industrial Equipment I AND | 3 | | |
| IMT 151 Maintaining Industrial Equipment I Lab | 2 | | |
| IMT 220 IM Electrical Motor Controls I AND | 3 | | |
| IMT 221 IM Electrical Motor Controls I Lab OR | 2 | | |
| EET 270 Electrical Motor Controls I AND | (2) | | |
| EET 271 Electrical Motor Controls I Lab OR | (2) | | |
| ELT 244 Electrical Machinery and Controls OR | (4) | | |
| IMT 120 IM Rotating Machinery AND | (3) | | |
| IMT 121 IM Rotating Machinery Lab OR | (2) | | |
| EET 264 Rotating Machinery AND | (2) | | |
| EET 265 Rotating Machinery Lab | (2) | | |
| IMT 100 Welding for Maintenance AND | 3 | | |
| IMT 101 Welding for Maintenance Lab OR | 2 | | |
| WLD 120 Shielded Metal Arc Welding AND | (2) | | |
| WLD121 Shielded Metal Arc Welding Lab OR | (3) | | |
| WLD140 Gas Metal Arc Welding AND | (2) | | |
| WLD141 Gas Metal Arc Welding Lab OR | (3) | | |
| WLD 152 Basic Welding B | (5) | | |

| | | |
|---|--------------|--|
| IMT289 Industrial Maintenance Technology Capstone | 1 | |
| Subtotal Core | 28-32 | |
| Technical Electives: | | |
| IET109 Safety | 3 | |
| IET120 Machine Tool Operation | 4 | |
| IET203 Programmable Logic Controllers | 5 | |
| IET205 Robot Maintenance | 4 | |
| Subtotal Tech Electives | 16 | |
| Total | 62-66 | |

Notes:

1. Good keyboarding skills needed for computer/digital literacy.
2. If courses equaling 10 credits are taken, five credits may be used as electives.
3. Diplomas can be completed before degree. (See KCTCS 2012-2013 Catalog)
4. See COMPASS Placement Scores in Master Advising for placement into developmental courses

| | Reading | Writing | Mathematics |
|---------|--------------|--------------|-------------------------|
| ACT | 17 or higher | 17 or higher | 17 or higher |
| COMPASS | 74 | 49 | 34 (pre-algebra domain) |

Industrial Maintenance Technology 470303701

**Diploma
Industrial Maintenance Technician**

Program Coordinator: Robbie Graves, (606)783-1538 ext. 66513 Montgomery Campus

Email: robbie.graves@kctcs.edu

Student Name _____ Student ID # _____

[Academic Plan Code: 4703034039; Academic Program Code: ENTCTC]

Industrial Maintenance Technician-4703034049

| General Education | Cr. Hours | Cr. Earned | |
|--|------------------|-------------------|--|
| Written Communication, Oral Communications or Heritage/Humanities | 3 | | |
| MAT 116 Technical Mathematics OR Higher | 3 | | |
| Subtotal General Education | 6 | | |
| Technical Core | Cr. Hours | Cr. Earned | |
| Computer/Digital Literacy | 3 | | |
| BRX 110 Basic Blueprint Reading for Machinist OR | (2) | | |
| BRX112 Blueprint Reading for Machinist OR | (4) | | |
| BRX 120 Basic Blueprint Reading OR | 3 | | |
| ELT 102 Blueprint Reading | (2) | | |
| FPX 100 Fluid Power AND | 3 | | |
| FPX 101 Fluid Power Lab OR | 2 | | |
| ELT 265 Applied Fluid Power | (3) | | |
| IMT 110 IM Electrical Principles AND | 3 | | |
| IMT 111 IM Electrical Principles Lab OR | 2 | | |
| ELT 110 Circuits I OR | (5) | | |
| EET119 Basic Electricity | (5) | | |
| IMT 150 Maintaining Industrial Equipment I AND | 3 | | |
| IMT 151 Maintaining Industrial Equipment I Lab | 2 | | |
| IMT 220 IM Electrical Motor Controls I AND | 3 | | |
| IMT 221 IM Electrical Motor Controls I Lab OR | 2 | | |
| EET 270 Electrical Motor Controls I AND | (2) | | |
| EET 271 Electrical Motor Controls I Lab OR | (2) | | |
| ELT 244 Electrical Machinery and Controls OR | (4) | | |
| IMT 120 IM Rotating Machinery AND | (3) | | |
| IMT 121 IM Rotating Machinery Lab OR | (2) | | |
| EET 264 Rotating Machinery AND | (2) | | |
| EET 265 Rotating Machinery Lab | (2) | | |
| IMT 100 Welding for Maintenance AND | 3 | | |
| IMT 101 Welding for Maintenance Lab OR | 2 | | |
| WLD 120 Shielded Metal Arc Welding AND | (2) | | |
| WLD121 Shielded Metal Arc Welding Lab OR | (3) | | |
| WLD140 Gas Metal Arc Welding AND | (2) | | |
| WLD141 Gas Metal Arc Welding Lab OR | (3) | | |
| WLD 152 Basic Welding B | (5) | | |
| IMT289 Industrial Maintenance Technology Capstone | 1 | | |
| Technical Electives 15 (fifteen credit hours of electives must be taken from the approved list. This list is not all inclusive. Electives may include BRX, ELT, FPX, IMT, EET, and WLD; other technical elective courses may be taken with the approval of the program coordinator.) | 15 | | |
| Subtotal Core | 28-32 | | |
| Total | 49-53 | | |

Industrial Maintenance Technology**CERTIFICATES**

Program Coordinator: Robbie Graves, (606)783-1538 ext. 66513 Montgomery Campus

Email: robbie.graves@kctcs.edu

Student Name _____ Student ID # _____

[Academic Plan Code: 4703034039; Academic Program Code: ENTC]

| Fluid Power Mechanic - 4703033129 | Cr. Hours | Cr. Earned |
|---|------------------|-------------------|
| FPX 100 Fluid Power AND | 3 | |
| FPX 101 Fluid Power Lab OR | 2 | |
| ELT 265 Applied Fluid Power | (3) | |
| MST 200 Advanced Hydraulic Systems AND | 3 | |
| MST 201 Advanced Hydraulic Systems Lab OR | 2 | |
| MST 204 Advanced Pneumatic Systems AND | (3) | |
| MST 205 Advanced Pneumatic Systems Lab | (2) | |
| Total Credits | 8-10 | |

Advanced Manufacturing Technician Track -470303702

| Industrial Maintenance Machinists Mechanic - 4703033119 | Cr. Hours | Cr. Earned |
|--|------------------|-------------------|
| BRX 120 Basic Blueprint Reading OR | 3 | |
| BRX 110 Basic Blueprint Reading for Machinist OR | (2) | |
| BRX 112 Blueprint Reading for Machinist OR | (4) | |
| ELT 102 Blueprint Reading | (2) | |
| IMT 100 Welding for Maintenance AND | 3 | |
| IMT 101 Welding for Maintenance Lab OR | 2 | |
| WLD 120 Shielded Metal Arc Welding AND | (2) | |
| WLD 121 Shielded Metal Arc Welding Lab OR | (3) | |
| WLD 140 Gas Metal Arc Welding AND | (2) | |
| WLD 141 Gas Metal Arc Welding Fillet Lab OR | (3) | |
| WLD 152 Basic Welding B | (5) | |
| IMT 115 Maintenance Machining I AND | 2 | |
| IMT 116 Maintenance Machining I Lab OR | 5 | |
| CMM 114 Fundamentals of Machine Tools OR | (7) | |
| CMM 110 Fundamentals of Machine Tools-A AND | (3) | |
| CMM 112 Fundamentals of Machine Tools-B | (4) | |
| IMT 150 Maintaining Industrial Equipment I AND | 3 | |
| IMT 151 Maintaining Industrial Equipment I Lab | 2 | |
| Total Credits: 19-21 | | |

| Industrial Maintenance Electrical Mechanic - 4703033189 | Cr. Hours | Cr. Earned |
|--|------------------|-------------------|
| FPX 100 Fluid Power AND | 3 | |
| FPX 101 Fluid Power Lab OR | 2 | |
| ELT 265 Applied Fluid Power | (3) | |
| IMT 110 IM Electrical Principles AND | 3 | |
| IMT 111 IM Electrical Principles Lab OR | 2 | |
| ELT 110 Circuits I OR | (5) | |
| EET 119 Basic Electricity | (5) | |
| IMT 220 IM Electrical Motor Controls I AND | 3 | |

| | | |
|--|-----|--|
| IMT 221 IM Electrical Motor Controls I Lab OR | 2 | |
| EET 270 Electrical Motor Controls I AND | (2) | |
| EET 271 Electrical Motor Controls I Lab OR | (2) | |
| ELT 244 Electrical Machinery and Controls OR | (4) | |
| IMT 120 IM Rotating Machinery AND | (3) | |
| IMT 121 IM Rotating Machinery Lab OR | (2) | |
| EET 264 Rotating Machinery AND | (2) | |
| EET 265 Rotating Machinery Lab | (2) | |
| IMT 280 Advanced Programmable Logic Controllers AND | (3) | |
| IMT 281 Advanced Programmable Logic Controllers Lab OR | (2) | |
| EET 276 Programmable Logic Controllers AND | (2) | |
| EET 277 Programmable Logic Controllers | (2) | |
| Total Credits: 12-15 | | |

| Industrial Maintenance Mechanic Level I - 4703033199 | Cr. Hours | Cr. Earned |
|---|------------------|-------------------|
| FPX 100 Fluid Power AND | 3 | |
| FPX 101 Fluid Power Lab OR | 2 | |
| ELT 265 Applied Fluid Power | (3) | |
| IMT 110 IM Electrical Principles AND | 3 | |
| IMT 111 IM Electrical Principles Lab OR | 2 | |
| ELT 110 Circuits I | (5) | |
| | | |
| IMT 150 Maintaining Industrial Equipment I AND | 3 | |
| IMT 151 Maintaining Industrial Equipment I Lab | 2 | |
| Total Credits: 13-15 | | |

| Industrial Maintenance Mechanic Level II - 4703033149 | Cr. Hours | Cr. Earned |
|--|------------------|-------------------|
| BRX 120 Basic Blueprint Reading OR | 3 | |
| BRX 110 Basic Blueprint Reading for Machinist OR | (2) | |
| BRX 112 Blueprint Reading for Machinist OR | (4) | |
| ELT 102 Blueprint Reading | (2) | |
| FPX 100 Fluid Power AND | 3 | |
| FPX 101 Fluid Power Lab OR | 2 | |
| ELT 265 Applied Fluid Power | (3) | |
| IMT 110 IM Electrical Principles AND | 3 | |
| IMT 111 IM Electrical Principles Lab OR | 2 | |
| ELT 110 Circuits I OR | (5) | |
| EET 119 Basic Electricity | (5) | |
| IMT 100 Welding for Maintenance AND | 3 | |
| IMT 101 Welding for Maintenance Lab OR | 2 | |
| WLD 120 Shielded Metal Arc Welding AND | (2) | |
| WLD 121 Shielded Metal Arc Welding Lab OR | (3) | |
| WLD 152 Basic Welding B | (5) | |
| IMT 115 Maintenance Machining I AND | 2 | |
| IMT 116 Maintenance Machining I Lab OR | 5 | |
| CMM 114 Fundamentals of Machine Tools OR | (7) | |
| CMM 110 Fundamentals of Machine Tools-A AND | (3) | |
| CMM 112 Fundamentals of Machine Tools-B | (4) | |
| Total Credits: 22-26 | | |

| Electro-Hydraulic Technician - 4703033169 | Cr. Hours | Cr. Earned |
|--|------------------|-------------------|
| IMT 110 IM Electrical Principles AND | 3 | |
| IMT 111 IM Electrical Principles Lab OR | 2 | |
| ELT 110 Circuits I | (5) | |
| FPX 100 Fluid Power AND | 3 | |
| FPX 101 Fluid Power Lab OR | 2 | |
| ELT 265 Applied Fluid Power | (3) | |
| MST 206 Electro-hydraulic | 3 | |
| MST 207 Electro-hydraulic Lab | 2 | |
| Total Credits: 13-15 | | |

| Chemical Operator - 4703033179 | Cr. Hours | Cr. Earned |
|--|------------------|-------------------|
| CHE 140 Introductory General Chemistry | 3 | |
| CHE 145 Introductory General Chemistry Lab | 1 | |
| GEN 276 Employment and Professional Skills | 1 | |
| IMT 140 Industrial Mechanics | 3 | |
| IMT 141 Industrial Mechanics Lab | 1 | |
| ITE 250 Team Dynamics and Problem Solving | 3 | |
| ISX 101 Industrial Safety | 3 | |
| MAT 116 Technical Mathematics | 3 | |
| PHX 150 Introduction to Physics | 3 | |
| QMS 101 Introduction to Quality Systems | 3 | |
| TEC 200 Technical Communications | 3 | |
| Computer/Digital Literacy | 0-3 | |
| Total Credits: 27-30 | | |

Notes:

1. Good keyboarding skills needed for computer/digital literacy.
2. If courses equaling 10 credits are taken, five credits may be used as electives.
3. Certificates can be completed before degree.
4. If you should change from a diploma to a degree additional courses will need to be taken to fulfill requirements.
(See KCTCS 2012-2013 Catalog)

COMPASS Placement Scores for placement into developmental courses:

| | Reading | Writing | Mathematics |
|---------|--------------|--------------|------------------------|
| ACT | 17 or higher | 17 or higher | 17 or higher |
| COMPASS | 74 | 49 | 34 (prealgebra domain) |