

## 2010 - 2011 Program of Study - Secondary

Submitted by CTPD Name: Stark County Area JVS

CTPD Number: 200094

### Secondary Program Information

Career Field: Manufacturing Technologies (MT)

School District Name: Stark County Area JVS

Pathway Name: Manufacturing Production (MT)

School District IRN: 62026

Specialization Name (if applicable): Welding

Building (location) Name: R.G. Drage CTC

EMIS Subject Code: 172306

Building (location) IRN: 62034

Local Program Name: Metal Fabrication

For JVSD only: specify grade level(s) and building location for associate schools component:

|         |  |             |  |
|---------|--|-------------|--|
| Grade   |  | School Name |  |
| Courses |  | Credits     |  |

Identify the # or range of **POTENTIAL** college courses and credits in the career field:

| Required or Elective Academic Courses and Other Courses |             |      |                                    |      |                |      |                                 |      |                          |          |        |      | Career and Technical Education Courses |      |            |      |
|---|-------------|------|------------------------------------|------|----------------|------|---------------------------------|------|--------------------------|----------|--------|------|--|------|------------|------|
| Grade   | English     | Code | Math                               | Code | Science        | Code | Social Studies                  | Code | Course                   | Code     | Course | Code | CTE Course                             | Code | CTE Course | Code |
| 9   | English I   | RA   | Algebra or Geometry                | RA   | Science        | RA   | World History                   | RA   | Health- 1/2<br>P.E.- 1/2 | RA<br>RA |        |      |  |      |            |      |
| 10  | English II  | RA   | Algebra I, Geometry, or Algebra II | RA   | Biology- Lab   | RA   | American History                | RA   |                          |          |        |      |  |      |            |      |
| 11  | English III | RA   | Algebra II, Geometry, or Pre-Calc  | RA   | Chemistry- Lab | RA   | Econ/Civics                     | RA   | Personal Finance         | RE       |        |      | Metal Fabrication Lab 4                | CC   |            |      |
| 12  | English IV  | RA   | Algebra II, Pre-Calc, or Trig.     | RA   | Physics- Lab   | RA   | Government/<br>American History | RA   | Entrp. (DE) CAD          | RE<br>CC |        |      | Metal Fabrication Lab 3                | CC   |            |      |

Contact Person: John Walker

Title: Supervisor

Phone: 330-832-9856

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Date Completed: 1/19/2010

Specify Industry Credential Opportunities (if applicable):

American Welding Society

D1.1 Structural Cert

Pressure Vessel Cert. ASME Sec IX Tow Motor License

OSHA Cert-10 hour Safety

**CODES** (use all that apply)

RA: Required Courses

RE: Recommended Electives

CT2: Eligible for CT2 Credit

\*CC: College Credit Opportunities based on articulation or

dual/concurrent enrollment agreements in career field

## 2010 - 2011 Program of Study - Postsecondary Semesters

**Postsecondary Institution:** Stark State College of Technology  
**College Major: (if applicable)** Applied Industrial **College Degree: (if applicable)** AAS  
 American Welding Society, D1.1 Structural Cert, Pressure Vessel Cer. ASME Sec IX Tow Motor

**Specify Industry Credential Opportunities (if applicable):** License, OSHA Cert-10 Hour Safety

**Certificate, Adult and/or Apprenticeship Program: (if applicable)** \_\_\_\_\_

Secondary Program Name: Metal Fabrication      Secondary School Name: R G Drage Career Center      District Name: R G Drage JVS

|                                | Course   | Code      | Course                                    | Code              | Course  | Code              | Course                                   | Code             | Course                                    | Code             | Course                              | Code      | Course | Code | Course | Code |
|--------------------------------|--|-----------|---|-------------------|---|-------------------|--|------------------|---|------------------|-------------------------------------|-----------|--------|------|--------|------|
| <b>Year 1<br/>1st<br/>Sem.</b> | Computer Apps for Technical Professionals ECA122 (3) | <b>RT</b> | Introduction to Algebra MTH101 (4)        | <b>RA</b>         | College Composition ENG124 (3)                  | <b>RA</b>         | Material Science MET123 (2)              | <b>RT</b>        | Blueprint Reading MST121 (2)              | <b>RT<br/>CC</b> | Engineering Tech Seminar ETD121 (1) | <b>RT</b> |        |      |        |      |
| <b>Year 1<br/>2nd<br/>Sem.</b> | College Algebra MTH125 (4)                           | <b>RA</b> | Trigonometry MTH128 (1)                   | <b>RA</b>         | Hydraulic & Pneumatic Systems MST134 (6)        | <b>RT</b>         | Electrical Circuits & Devices EST130 (4) | <b>RT</b>        | Industrial Management Concepts IET121 (3) | <b>RT</b>        |                                     |           |        |      |        |      |
| <b>Year 2<br/>1st<br/>Sem.</b> | Technical Report Writing ENG221 (3)                  | <b>RA</b> | Physics I Phy121 (4)                      | <b>RA<br/>TAG</b> | Eff Speak or Inter-group Comm COM121/COM123 (3) | <b>RA<br/>TAG</b> | Introduction to Robotics IET228 (2)      | <b>RT</b>        | Manufacturing Processes MET225 (3)        | <b>RT</b>        |                                     |           |        |      |        |      |
| <b>Year 2<br/>2nd<br/>Sem.</b> | Mechanical Drive Components MST221 (3)               | <b>RT</b> | Arts/Humanities / Social Science Elective | <b>RE</b>         | Technical Electives (13)                        | <b>RT</b>         | Principals of Welding MST127 (3)         | <b>RT<br/>CC</b> | Welding Lab MST128 (3)                    | <b>RT<br/>CC</b> |                                     |           |        |      |        |      |

**Contact Person:** Don Ball  
Director, Apprenticeship & Industrial Training  
**Title:** (HVAC & Environmental)  
**Phone:** 330-494-6170 x4470  
**E-mail:** [dball@starkstate.edu](mailto:dball@starkstate.edu)

**CODES** (use all that apply)

**RT:** Required Technical Courses      **CT2:** Eligible for CT2 Credit  
**RA:** Other Required Courses      **TAG:** Eligible for TAG Credit  
**RE:** Recommended Electives  
**CC:** Other College Credit Opportunities (based on articulation or dual/concurrent enrollment agreements with partner high school)

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## 2010 - 2011 Program of Study - Postsecondary Semesters

**Postsecondary Institution:** Stark State College of Technology  
**College Major: (if applicable)** Electrical Engineering- **College Degree: (if applicable)** AAS  
 American Welding Society, D1.1 Structural Cert, Pressure Vessel Cer. ASME Sec IX Tow Motor

**Specify Industry Credential Opportunities (if applicable):** License, OSHA Cert-10 Hour Safety

**Certificate, Adult and/or Apprenticeship Program: (if applicable)**

**Secondary Program Name:** Metal Fabrication **Secondary School Name:** R G Drage Career Center **District Name:** R G Drage JVS

|                                | Course   | Code      | Course                                     | Code | Course                                   | Code | Course                                    | Code | Course                              | Code      | Course                                  | Code     | Course | Code | Course | Code |
|--------------------------------|--|-----------|--|------|--|------|---|------|-------------------------------------|-----------|---|----------|--------|------|--------|------|
| <b>Year 1<br/>1st<br/>Sem.</b> | Programming Logic and Problem Solving ECA127 (3) | RT        | DC Circuit Analysis EET120 (4)             | RT   | Engineering Tech Seminar ETD121 (1)      | RT   | College Composition ENG124 (3)            | RA   | College Algebra MTH125 (4)          | RA        | Trigonometry MTH128 (1)                 | RA       |        |      |        |      |
| <b>Year 1<br/>2nd<br/>Sem.</b> | AC Circuit Analysis EET122 (4)                   | RT        | Electronic Devices & Circuits EET123 (4)   | RT   | Electrical Machines EET126 (4)           | RT   | Pre-Calculus MTH126 (4)                   | RA   | Physics I PHY121 (4)                | RA<br>TAG |   |          |        |      |        |      |
| <b>Year 2<br/>1st<br/>Sem.</b> | Material Science MET123 (2)                      | RT        | Statics & Strength of Materials MET124 (4) | RT   | PLC's & Industrial Controls I EET227 (3) | RT   | Concepts of Calculus MTH221 (3)           | RA   | Technical Report Writing ENG221 (3) | RA        | Basic AutoCAD DET125 (3)                | RT<br>CC |        |      |        |      |
| <b>Year 2<br/>2nd<br/>Sem.</b> | Eff Speak or Inter-group Comm COM121/COM123 (3)  | RA<br>TAG | Fluid Power MET222 (4)                     | RT   | Manufacturing Processes MET222 (3)       | RT   | Thermodynamics & Heat Transfer MET227 (3) | RT:  | Optics EET129 (2)                   | RT        | Arts/Humanities/Social Science Elective | RE       |        |      |        |      |

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## 2010 - 2011 Program of Study - Postsecondary Semesters

Postsecondary Institution:

Stark State College of Technology

College Major: *(if applicable)*

Design Engineering

College Degree: *(if applicable)*

AAS

American Welding Society, D1.1 Structural Cert, Pressure Vessel Cer. ASME Sec IX Tow Motor

Specify Industry Credential Opportunities (if applicable): License, OSHA Cert-10 Hour Safety

Certificate, Adult and/or Apprenticeship Program: *(if applicable)*

Secondary Program Name: Metal Fabrication

Secondary School Name: R G Drage Career Center

District Name:

R G Drage JVS

|                                | Course   | Code      | Course   | Code              | Course  | Code      | Course                                  | Code              | Course  | Code      | Course  | Code      | Course                      | Code             | Course | Code |
|--------------------------------|--|-----------|--|-------------------|---|-----------|---|-------------------|---|-----------|---|-----------|-----------------------------|------------------|--------|------|
| <b>Year 1<br/>1st<br/>Sem.</b> | Engineering Drawing<br>DET121 (3)                    | <b>RT</b> | College Composition<br>ENG124 (3)                  | <b>RA</b>         | Engineering Tech Seminar<br>ETD121 (1)                        | <b>RT</b> | College Algebra<br>MTH125 (4)           | <b>RA</b>         | Trigonometry<br>MTH128 (1)                    | <b>RA</b> | Computer Apps for Technical Professionals<br>ECA122 (3) | <b>RT</b> | Basic AutoCAD<br>DET125 (3) | <b>RT<br/>CC</b> |        |      |
| <b>Year 1<br/>2nd<br/>Sem.</b> | Descriptive Geometry<br>DET122 (3)                   | <b>RA</b> | Working Drawings<br>DET124 (3)                     | <b>RT<br/>CC</b>  | Pre-Calculus<br>MTH126 (4)                                    | <b>RA</b> | Physics I<br>Phy121 (4)                 | <b>RA<br/>TAG</b> | Statics & Strength of Materials<br>MET124 (4) | <b>RT</b> |   |           |                             |                  |        |      |
| <b>Year 2<br/>1st<br/>Sem.</b> | Geometric Dimensioning & Tolerancing<br>DET226 (2)   | <b>RT</b> | Eff Speak or Inter-group Comm<br>COM121/COM123 (3) | <b>RA<br/>TAG</b> | Manufacturing Processes or Machine Tools<br>MET225/AIT122 (3) | <b>RT</b> | Concepts of Calculus<br>MTH221(3)       | <b>RA</b>         | Design Elective I (CAD)<br>(3)                | <b>RT</b> | Kinematics<br>DET223 (3)                                | <b>RT</b> |                             |                  |        |      |
| <b>Year 2<br/>2nd<br/>Sem.</b> | Technaical Project-Mechanical & Design<br>MET226 (2) | <b>RT</b> | Machine Design<br>MET228 (4)                       | <b>RT</b>         | Technical Report Writing<br>ENG221 (3)                        | <b>RA</b> | Arts/Hunanities/Social Science Elective | <b>RE</b>         | Design Elective II (CAD)<br>(3)               | <b>RT</b> |   |           |                             |                  |        |      |

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