

## ASSOCIATE IN APPLIED SCIENCE DEGREES

### Industrial Trades 2010-2011 Catalog

Students who complete a certificate program at the RMTC may apply all of their credits earned in that program toward an Associate in Applied Science. In order to earn an associate in applied science students must 1) complete a certificate, 2) complete enough technical electives to reach the 62 credit degree requirement, 3) complete the general education requirements, and 4) meet all course pre-requisites for general education courses.

Students who are bringing in transfer credits or who have received prior experiential learning credit must take a minimum of 40% of their credits from KCC (in the certificate and associates programs) in order to earn as associate from Kellogg Community College.

Students interested in the associate degree should have their choice of curriculum approved by the Director of the RMTC prior to enrolling.

#### **1. CERTIFICATE**

Students must select one of the following certificate programs in order to complete an Industrial Trades Associate in Applied Science degree.

*Minimum Credits  
Required*

Industrial Electricity/Electronics .....	30
Industrial Machine Tool/Tool & Die .....	30
Industrial HVAC/R .....	25
Industrial Welding.....	25
Industrial Pipefitting.....	20
Industrial Robotics .....	16

#### **3. GENERAL EDUCATION**

The following courses provide the competencies needed to carry out typical job-related functions and will help the student to develop into an articulate, healthy, and informed citizen. Course substitutions may be permitted with prior approval.

*Minimum Credits  
Required*

ENGL 151, Freshman Composition.....	3
COMM 101, Foundations of Interpersonal Communication or COMM 111, Business and Technical Communication .....	3
Mathematics and Science Electives* .....	3-5
Creativity Electives* .....	2-3
Global Awareness Electives* .....	3-4
Healthy Living Electives* .....	2-4
	16-22

#### **2. TECHNICAL ELECTIVES**

In addition to the certificate and general education requirements, students must complete enough technical electives to accumulate a total of 62 credits.

Technical electives may be selected from any of the Industrial Trades courses or courses from the following areas: Accounting (ACCO), Business Administration (BUAD), Office Information Technology (OIT), Computer-Aided Drafting and Design Technology (DRAF), Computer Engineering Technology (CET), Engineering Technology (ENTE), or Physics (PHYS).

#### **4. COURSE PRE-REQUISITES**

Depending on the student's compass assessment scores students may need to take one or more of these course pre-requisites. These courses do not count toward the 62 credit degree requirement.

*Credits*

STSK 98, College Reading .....	4
STSK 99, Applied Study Skills.....	1-3
STSK 111, College Success.....	1-3
MATH 97, Mathematics Clinic.....	3
MATH 100, Pre-algebra.....	3
MATH 101, Beginning Algebra .....	4
ENGL 97, Writing Skills .....	4
ENGL 120, Writing Improvement.....	3

\*See the following pages for options to fulfill the Mathematics and Science, Creativity, Global Awareness, and Healthy Living electives.

ASSOCIATE IN APPLIED SCIENCE DEGREE - Industrial Trades

General Education Core Courses

Choose from the following courses to complete your general education requirements. General education core courses require a prerequisite COMPASS reading score of 70, or a “C” in Study Skills 98 or 99.\* Be sure to check your transfer and program guides for more explicit directions concerning general education choices. Students seeking MACRAO should see pages 18-19 for MACRAO general education requirements.

\*Physical Education Activity courses 150-161 do not have a COMPASS reading requirement.

Communicating

	<i>Credits</i>
<b>Communication 101</b> , Foundations of Interpersonal Communication .....	3
<b>Communication 101H</b> , Foundations of Interpersonal Communication - Honors.....	3
<b>Communication 111</b> , Business and Technical Communication .	3
<b>Communication 205</b> , Introduction to Group Communication...	3
<b>Communication 207</b> , Public Speaking .....	3
<b>Communication 210</b> , Oral Interpretation .....	3
<b>English 151</b> , Freshman Composition .....	3
<b>English 151H</b> , Freshman Composition - Honors.....	3
<b>English 152</b> , Freshman Composition .....	3
<b>English 152H</b> , Freshman Composition - Honors.....	3
<b>English 153</b> , Technical English.....	3
<b>English 201</b> , Advanced Composition .....	3
<b>Journalism 112</b> , News Writing .....	3
<b>Journalism 154</b> , Writing for Student Publications .....	1-3

Creativity

<i>(Select one course from the group)</i>	<i>Credits</i>
<b>Art 103</b> , Two-Dimension Design .....	3
<b>Art 105</b> , Contemporary Art Survey .....	2
<b>Art 110</b> , Drawing I .....	3
<b>Art 141</b> , Art for Elementary Teachers .....	3
<b>Art 160</b> , Painting and Illustration I .....	2
<b>Art 201</b> , Painting and Illustration II .....	2
<b>Art 204</b> , Three-Dimension Art .....	3
<b>Art 211</b> , Art Appreciation .....	3
<b>Art 212</b> , Art History .....	3
<b>Art 213</b> , Art History .....	3
<b>Art 221</b> , Photography Basics .....	2
<b>Art 222</b> , Introduction to Photography .....	2-3
<b>Art 223</b> , Intermediate Photography.....	3
<b>Art 224</b> , Advanced Photography .....	3
<b>Art 227</b> , Digital Color Photography .....	3
<b>Art 229</b> , Studio Photography .....	3
<b>Art 230</b> , Digital Color Photography II .....	3
<b>Art 245</b> , Introduction to Ceramics .....	2
<b>Art 246</b> , Intermediate Ceramics.....	2
<b>English 203</b> , Introduction to Creative Writing .....	3

<b>English 204</b> , Advanced Creative Writing.....	3
<b>Humanities 150</b> , Encounter with the Arts .....	2
<b>Humanities 150H</b> , Encounter with the Arts - Honors .....	2
<b>Humanities 241</b> , Dance for Elementary Educators.....	3
<b>Industrial Welding 297</b> , Art Welding .....	2
<b>Literature 105</b> , Introduction to Literature .....	2-3
<b>Literature 205</b> , World Literature .....	3
<b>Literature 206</b> , World Literature .....	3
<b>Literature 211</b> , American Literature.....	3
<b>Literature 212</b> , American Literature.....	3
<b>Literature 213</b> , Children's Literature .....	3
<b>Literature 216</b> , Film Interpretation.....	3
<b>Literature 222</b> , British Literature II .....	3
<b>Literature 223</b> , Shakespeare.....	3
<b>Literature 230</b> , Bible as Literature .....	3
<b>Literature 240</b> , African-American Literature .....	3
<b>Literature 285</b> , Interdisciplinary Humanities.....	2-4
<b>Music 130</b> , Music Theory I.....	3
<b>Music 131</b> , Music Theory II.....	3
<b>Music 141</b> , Fundamentals of Music for Teaching .....	3
<b>Music 211</b> , Music Appreciation .....	3
<b>Music 232</b> , Music Theory III.....	3
<b>Music 233</b> , Music Theory IV.....	3
<b>Music 250</b> , Music History I.....	3
<b>Music 251</b> , Music History II.....	3
<b>Music 270</b> , Sacred Choral Literature.....	3
<b>Theatre 121</b> , Theatre Appreciation I .....	3
<b>Theatre 122</b> , Theatre Appreciation II .....	3
<b>Theatre 125</b> , Stagecraft I .....	3
<b>Theatre 218</b> , Acting I .....	3
<b>Theatre 251</b> , Introduction to Children's Theatre.....	3

Global Awareness

<i>(Select one course from the group)</i>	<i>Credits</i>
<b>Anthropology 200</b> , Introduction to Anthropology .....	3
<b>Arabic 101</b> , Elementary Arabic .....	4
<b>Arabic 102</b> , Elementary Arabic II .....	4
<b>Art 210</b> , History of Photography and Film .....	3
<b>Communication 241</b> , Foundations of Mass Communication .....	3
<b>Economics 201</b> , Principles of Economics —MACRO .....	3
<b>Economics 201H</b> , Principles of Economics—MACRO - Honors...3	3
<b>French 101</b> , Elementary French.....	4
<b>French 102</b> , Elementary French.....	4
<b>French 201</b> , Intermediate French .....	4
<b>French 202</b> , Intermediate French .....	4
<b>History 103</b> , American Foundations .....	3
<b>History 104</b> , Modern America .....	3
<b>History 104H</b> , Modern America - Honors .....	2-4
<b>History 106</b> , Religious History.....	3
<b>History 151</b> , Western Civilization: Early Western World .....	3
<b>History 151H</b> , Western Civilization: Early Western World-Honors .....	3
<b>History 152</b> , Western Civilization: Modern Western World.....	3

<b>History 152H, Western Civilization:</b>	
Modern Western World - Honors .....	3
<b>History 201, Global History to 1500.....</b>	3
<b>History 202, Global History from 1500 to Present.....</b>	3
<b>History 210, History of Michigan .....</b>	3
<b>History 211, History of England .....</b>	3
<b>History 220, Great Lives.....</b>	3
<b>History 240, African American History.....</b>	3
<b>History 250, History of Africa.....</b>	3
<b>History 260, History of Middle East and North Africa.....</b>	3
<b>Humanities 205, Ethical Dilemmas in Modern Society.....</b>	3
<b>International Travel 210, International Travel - Culture .....</b>	2-4
<b>International Travel 211, International Travel - Science     and Math .....</b>	2-4
<b>Japanese 101, Introductory Japanese.....</b>	4
<b>Japanese 102, Introductory Japanese.....</b>	4
<b>Journalism 111, Mass Media Environment.....</b>	3
<b>Philosophy 201, Introduction to Philosophy .....</b>	3
<b>Philosophy 201H, Introduction to Philosophy - Honors .....</b>	3
<b>Philosophy 202, Introduction to Ethics.....</b>	3
<b>Philosophy 230, Philosophy of Religion.....</b>	3
<b>Political Science 200, American System of Government.....</b>	3
<b>Political Science 200H, American System of     Government - Honors.....</b>	3
<b>Political Science 201, American System of     Government - Federal .....</b>	3
<b>Political Science 202, American System     of Government - State and Local.....</b>	3
<b>Political Science 210, Introductory Comparative Politics .....</b>	3
<b>Political Science 211, International Relations.....</b>	3
<b>Service Learning 200, Service Learning .....</b>	3
<b>Sociology 201, Introduction to Sociology .....</b>	3
<b>Sociology 204, Race and Ethnic Relations.....</b>	3
<b>Spanish 101, Elementary Spanish .....</b>	4
<b>Spanish 102, Elementary Spanish .....</b>	4
<b>Spanish 201, Intermediate Spanish .....</b>	4
<b>Spanish 202, Intermediate Spanish .....</b>	4
<b>Spanish 203, Advanced Conversational Spanish.....</b>	3

#### Healthy Living

*(Select one course from the group)*

*Credits*

<b>Physical Education Activity 121, Healthy Lifestyle Practices.....</b>	2
<b>Physical Education Activity 150, Wellness Activity:     Aquatic Exercise.....</b>	2
<b>Physical Education Activity 151, Wellness Activity:     Aerobics.....</b>	2
<b>Physical Education Activity 152, Wellness Activity:     Weight Training .....</b>	2
<b>Physical Education Activity 153, Wellness Activity:     Sport Conditioning.....</b>	2
<b>Physical Education Activity 155, Wellness Activity:     Cross Country Skiing .....</b>	2
<b>Physical Education Activity 156, Wellness Activity:     Hiking.....</b>	2

<b>Physical Education Activity 159, Wellness Activity:     Walking/Jogging .....</b>	2
<b>Physical Education Activity 160, Wellness Activity: Tennis.....</b>	2
<b>Physical Education Activity 161, Wellness Activity:     Yoga Pilates Fusion .....</b>	2
<b>Physical Education Professional 290, Preschool and     Elementary Physical Education.....</b>	3
<b>Psychology 201, Introduction to Psychology.....</b>	3
<b>Psychology 201H, Introduction to Psychology - Honors.....</b>	3
<b>Psychology 220, Developmental Psychology.....</b>	3
<b>Psychology 250, Abnormal Psychology .....</b>	3
<b>Psychology 270, Human Sexuality .....</b>	3
<b>Psychology 275, Criminal Psychology.....</b>	3
<b>Psychology 290, Social Psychology.....</b>	3
<b>Science 100, Environmental Science .....</b>	4
<b>Science 103, Field Investigation in Environmental Studies.....</b>	4
<b>Sociology 202, Social Problems .....</b>	3
<b>Sociology 203, Marriage and Family.....</b>	3

#### Mathematics and Science

*(Select one course from the group)*

*Credits*

<b>Astronomy 104, Introductory Astronomy .....</b>	4
<b>Biology 101, Biological Science.....</b>	4
<b>Biology 105, Essentials of Human Anatomy and Physiology .....</b>	4
<b>Biology 109, Principles of Biology I.....</b>	4
<b>Biology 110, Principles of Biology II.....</b>	4
<b>Biology 111, Botany .....</b>	4
<b>Biology 112, Zoology .....</b>	4
<b>Biology 140, Life Science for Elementary Educators.....</b>	4
<b>Biology 200, Field Biology.....</b>	4
<b>Biology 201, Human Anatomy.....</b>	4
<b>Biology 202, Human Physiology .....</b>	4
<b>Biology 205, Microbiology.....</b>	4
<b>Chemistry 100, Fundamentals of Chemistry I     and higher CHEM courses.....</b>	3-4
<b>Geography 100, Physical Geography.....</b>	4
<b>Math 111, Mathematics for Elementary Teachers     and higher MATH courses .....</b>	3-4
<b>Physics 111, Introductory Physics I     and higher PHYS courses .....</b>	3-4
<b>Science 102, Physical Science .....</b>	4