

# KCTCS Catalog 2010-2011

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## Chemical Operator

<http://legacy.kctcs.edu/catalog//curric/index.cfm>

An understanding of the requirements and opportunities in maintenance, good safety practices, pride in workmanship, and an understanding of the principles and accepted practices of the maintenance trade are covered in this program. Students are trained to hold positions in factories, hospitals, hotels, etc., where multi-skilled maintenance personnel are needed. Included are courses in air conditioning, carpentry, electricity, machine tool, metal fabrication, and welding.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Certificate

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### Chemical Operator - 4703033179

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  
INDT 250 Team Dynamics and Problem Solving.....3  
ISX 100 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 Literacy.....0-3

**Total Credits.....27-30**

## Associate in Applied Science

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This program is designed to prepare its graduates for entry-level positions in the areas of process operators, process technicians, and chemical technician. Basic knowledge in the areas of chemical unit operations, organic, analytical and inorganic chemistry, mathematics, policies and practices in areas of environmental, health and safety, process systems and control, and statistics for quality help the graduate to understand the operation of modern chemical industries.

**Chemical Process Technician – This curriculum has not yet been approved by the Kentucky State Board of Regents. The Board is expected to make their decision by June 2011.**

### West Kentucky Community and Technical College

|     |     |                                                                       |    |
|-----|-----|-----------------------------------------------------------------------|----|
| ENG | 101 | Writing I                                                             | 3  |
| CHE | 140 | Introduction to General Chemistry                                     | 3  |
| CHE | 145 | Introductory General Chemistry Lab                                    | 1  |
| MAT | 126 | Technical Algebra and Trigonometry OR Higher Level Mathematics Course | 3  |
|     |     | Social Interaction (Recommended ECO 101 Contemporary Economic Issues) | 3  |
|     |     | Heritage/Humanities                                                   | 3  |
|     |     | General Education                                                     | 16 |
| AET | 110 | Introduction to Circuit Analysis                                      | 4  |
| CHE | 150 | Introduction to Organic and Biological Chemistry                      | 3  |
| CHE | 155 | Introduction to Organic and Biological Chemistry Lab                  | 1  |
| GEN | 276 | Employment and Professional Skills                                    | 1  |
| ICT | 185 | Introduction to Industrial Chemical Technology                        | 1  |
| ICT | 190 | Chemical Processes – Mass & Energy Balances                           | 2  |
| ICT | 220 | Unit Operations I                                                     | 3  |
| ICT | 230 | Env, Health, & Safety Practices                                       | 3  |
| ICT | 240 | Unit Operations II                                                    | 3  |

|               |     |                                            |       |
|---------------|-----|--------------------------------------------|-------|
| <b>ICT</b>    | 250 | Process Systems and Control                | 3     |
| <b>ICT</b>    | 280 | Capstone in Industrial Chemical Technology | 2     |
| <b>IMT</b>    | 140 | Industrial Mechanics                       | 3     |
| <b>IMT</b>    | 141 | Industrial Mechanics Lab                   | 1     |
| <b>INDT</b>   | 250 | Team Dynamics and Problem Solving          | 3     |
| <b>PHY</b>    | 171 | Applied Physics OR                         | 4     |
| <b>PHY</b>    | 152 | Introductory Physics II AND                | (3)   |
| <b>PHY</b>    | 162 | Introductory Physics II Lab                | (1)   |
| <b>QMS</b>    | 101 | Introduction to Quality Systems            | 3     |
| <b>TEC</b>    | 200 | Technical Communications                   | 3     |
|               |     | Computer Literacy                          | 0-3   |
| <b>ET</b>     | 295 | Independent Problems OR                    | 1-2   |
| <b>COE</b>    | 199 | Co-operative Education                     | (1-4) |
| Total Credits |     |                                            | 60-66 |

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