



Engineering/Manufacturing & Industrial Technology Pathway

www.jccmi.edu

Manufacturing Technology Associate in Applied Science

Designed to provide the knowledge and experience necessary to understand, apply and control engineering procedures in manufacturing processes.

Minimum credits: 62
Minimum cumulative GPA: 2.0
Minimum JCC credits: 12
MACRAO agreement: No

GENERAL EDUCATION REQUIREMENTS (18 credits)

ENGLISH (3 credits)

ENG 131 Writing Experience3

MATHEMATICS (4 credits)

Choose one of the following:

MTH 140 Pre-calculus5

MTH 151 Calculus I4

SCIENCE (4 credits)

PHY 231 College Physics I4

SOCIAL SCIENCE (3 credits)

Choose one of the following:

PLS 141 American National Government3

ECN 231 Macroeconomics3

HUMANITIES (3 credits)

Choose one of the following:

PHL 231 Introduction to Philosophy3

PHL 232 Logic3

HEALTH/PHYSICAL FITNESS (1 credit)

Choose one of the following:

HPF 160 Wellness1

HPF 168 Weight Training & Conditioning2

HPF 221 Jazz Techniques3

HPF 277 Stress Management2

HPF 278 Stress Management for Parents2

RELATED REQUIREMENTS (10 credits)

ENG 132 Writing Experience3

or ENG 232 Technical & Business Writing3

PHY 232 College Physics II4

CPS 175 Computer Programming I: FORTRAN3

or ITE 117 Computer Programming - BASIC3

MANUFACTURING ENGINEERING TECHNOLOGY

REQUIREMENTS (23 credits)

CAD 121 Technical Drafting I4

CAD 122 Technical Drafting II4

MTT 105 Machine Tool Technology I4

MTT 106 Machine Tool Technology II4

MTT 133 Metallurgy3

EET 120 Circuit Analysis I4

MANUFACTURING ENGINEERING TECHNOLOGY

OPTIONS (11 credits)

Choose 1 of the following groups:

CAD/CAM GROUP

NCT 121 Introduction to Numerical Control2

CAD 131 Computer Assisted Drafting I (AutoCAD) . . .3

or 140 Computer Assisted Drafting I(MicroStation) .3

CAD 132 Computer Assisted Drafting II (AutoCAD) . .3

or 141 Computer Assisted Drafting II(MicroStation) .3

NCT 123 N/C Machine Tool Operations3

QUALITY CONTROL GROUP

QCT 111 Using Precision Measuring Instruments I . . .1

QCT 113 Using Precision Measuring Instruments II . . .1

QCT 115 Basic CMM Techniques1

QCT 141 Statistical Process Control: X-bar

and R charts11

QCT 143 Statistical Process Control: Attribute Charts . .1

ELECTIVES

Select classes from QCT, NCT or MTT to meet 62 credit degree requirement