

Advanced Industrial Integrated Technology (AIIT)
AAS – Medical Equipment & Instrumentation Technician (67 credits)

Madisonville
Advising Plan

2009
 -2010

Name _____ Empl ID# _____

General Education Requirements

Course	Hrs	Grade	Semester
ENG 101 Writing I	3		
MT 125 Technical Algebra & Trigonometry <u>or</u> MT 150 College Algebra	3		
PH 171 Applied Physics*	4		
Social Interaction	3		
Heritage <u>or</u> Humanities <u>or</u> Foreign Language	3		

Subtotal Credits: 16 hours

*Prerequisites: MT 110, MT 115, MT 120 or MT 122 or two years of high school algebra or equivalent or consent of instructor.

Medical Equipment & Instrumentation Option Requirements

Course	Hrs	Grade	Semester
BIO 135 (Additional General Education Science)	4		
IT 105 Computer Maintenance Essentials	3		
IT 205 Advanced Computer Maintenance	3		
BMT 110 BMET Career Perspectives & Field Practices	2		
BMT 209 Clinical	2		
BMT 210 Fundamental Engineering Design Principles Encountered in Medical Technology	1		
BMT 230 Understanding, Maintaining, and Servicing Medical Equipment	3		
BMT 240 Understanding, Maintaining, and Servicing Specialized Medical Equipment	3		

Subtotal Credits: 21 hours

AIIT Technical Core Requirements

Must complete all courses with a grade of "C" or higher

Course	Hrs	Grade	Semester
AIT 100 Power Generation & Utilization (3 modules)	4		
AIT 110 Power Distribution Systems (2 modules)	3		
AIT 120 Equipment Installation (3 modules)	3		
BMT 100 Hazardous Risks Encountered by BMET's and Methods of Prevention	1		
BMT 120 Essentials of Analog and Digital Electronics for BMET's: Level I	4		
BMT 130 Essentials of Analog and Digital Electronics for BMET's: Level II	4		
BMT 140 Biomedical Instrumentation & Biophysical Measurements	4		
BMT 215 Principles and Practices of Medical Equipment Maintenance and Management	4		
CIS 100 Introduction to Computers	3		

Subtotal Credits: 30 hours

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AIIT – AAS – Medical Equipment & Instrumentation Technician (67 credits) NEW Students entering in SPRING 2010

Lecture component of all AIT courses are delivered online; students are required to attend AIT course lab components on the MCC North campus, Brown Badgett Complex.

New Students entering Spring 2010 SAMPLE SCHEDULING PLAN	
<p><u>First Spring Semester</u> AIT 100 (4 credits) AIT 110 (3 credits) BIO 135 (4 credit) CIS 100 MT 125 <u>or</u> MT 150 <i>Total: 17 credits</i></p>	<p><u>Second Spring Semester</u> IT 205 (3 credits) BMT 230 (3 credits) BMT 140 (4 credits) BMT 240 (3 credits) BMT 210 (1 credit) <i>Total: 14 credits</i></p>
<p><u>First Summer Semester</u> BMT 100 (1 credits) BMT 110 (2 credits) <i>Total: 3 credits</i></p>	<p><u>Second Summer Semester</u> BMT 209 (2 credits) <i>Total: 2 credits</i></p>
<p><u>First Fall Semester</u> BMT 120 (4 credits) BMT 130 (4 credits) BMT 215 (4 credits) IT 105 (3 credits) <i>Total: 15 credits</i></p>	<p><u>Second Fall Semester</u> Social Interaction Heritage/Humanities AIT 120 (3 credits) PHY 171 ENG 101 <i>Total: 16 credits</i></p>
<p><u>Program Coordinator’s Notes:</u></p> <p>Sample schedule reflects one example of AIIT scheduling, specific to new students entering Spring 2010. AIIT courses are offered both semesters.</p> <p>Reading placement: Students <u>cannot</u> enroll in AIT & BMT courses if reading placement is at developmental level (RDG 020, RDG 030) or lower (GAP Reading).</p> <p>Math placement: Students <u>cannot</u> enroll in BMT courses with developmental Math placement (MT 55, MT 65) or lower (GAP Math). Students <u>cannot</u> enroll in AIT courses if they place into MT 55 (Pre-Algebra) or GAP Math; however, students who place in MT 65 (Basic Algebra) <u>may</u> take AIT 100 & AIT 110 if they <u>concurrently enroll</u> in MT 65 the same semester.</p> <p>Mandatory orientation for all AIT students: All AIT students <u>must</u> attend a required orientation held at the beginning of each semester. AIIT students will be informed of meeting date and time by letter.</p> <p>Tuition Costs: Tuition charges for semester will include fees for E-learning components required for AIIT program online courses.</p>	

AIIT –AAS – Medical Equipment & Instrumentation Technician (67 credits)

SAMPLE SCHEDULING PLAN for students who entered FALL 2009

AIIT courses will be offered fall and spring semesters

First Year - Fall Semester

AIT 100
AIT 110
Social Interaction
CIS 100
MT 125
16 Hrs

First Year – Spring Semester

BMT 120
BMT 130
IT 105
BIO 135
ENG 101
18 Hrs

First Year – Summer Semester

BMT 100
BMT 110
3 Hrs

Second Year – Fall Semester

BMT 230
BMT 215
BMT 140
AIT 120
IT 205
17 Hrs

Second Year – Spring Semester

BMT 240
BMT 210
BMT 209
PH 171
Heritage/Humanities
13 Hrs

Program Coordinator's Notes:

Sample schedule reflects one example of AIIT scheduling, specific for returning students who entered college in Fall 2009 (2nd semester AIIT students).

Reading placement:

Students cannot enroll in AIT & BMT courses if reading placement is at developmental level (RDG 020, RDG 030).

Math placement:

Students cannot enroll in BMT courses with developmental Math placement (GAP Math, MT 55, MT 65).

Students cannot enroll in AIT courses if they place into MT 55 (Pre-Algebra) or GAP Math; however, students who place in MT 65 (Basic Algebra) may take AIT 100 & AIT 110 **if** they are concurrently enrolled in MT 65 with AIT courses.

Mandatory orientation for AIIT students:

All AIT students must attend a required orientation held at the beginning of each semester. AIIT students will be informed of meeting date and time by letter.

Tuition Costs:

Tuition charges for semester will include fees for E-learning components required for AIIT program online courses.

AIIT Curriculum – Modules per Course

➤ AIT 100 Power Generation and Utilization	4 credits
○ AIT 1001 Basic Electrical Knowledge	2 credits
○ AIT 1002 Power Development	1 credit
○ AIT 1003 Hydraulic/Pneumatic Fundamentals	1 credit
➤ AIT 110 Power Distribution Systems	3 credits
○ AIT 1101 Electrical Power Distribution	1.5 credit
○ AIT 1102 Fluid Power Distribution	1.5 credit
➤ AIT 120 Equipment Installation	3 credits
○ AIT 1201 Electrical Installation	1 credit
○ AIT 1202 Piping, Pneumatic, & Installation	1 credit
○ AIT 1203 Mechanical Installation	1 credit
➤ AIT 130 Measurement and Instrumentation	4 credits
○ AIT 1301 General Measurement and Introduction to Instrumentation	1 credit
○ AIT 1302 Quality Control and SPC	2 credits
○ AIT 1303 Quality Systems	1 credit
➤ AIT 140 Industrial Controls I	4 credits
○ AIT 1401 Basic Electrical Controls	2 credits
○ AIT 1402 Basic Pneumatic Controls	1 credit
○ AIT 1403 Basic Hydraulic Controls	1 credit
➤ AIT 150 Industrial Controls II	4 credits
○ AIT 1501 Intermediate Electrical Controls	2 credits
○ AIT 1502 Intermediate Pneumatic Controls	1 credit
○ AIT 1503 Intermediate Hydraulic Controls	1 credit
➤ AIT 160 Workplace Safety	1 credit
➤ AIT 200 Integrated Process Control	4 credits
○ AIT 2001 Elements of Integrated Process Control Sub-systems	2 credits
○ AIT 2002 Integrated Dynamics of Process Control Systems	2 credits
➤ AIT 210 Advanced Equipment Maintenance	4 credits
○ AIT 2101 Predictive/Preventive Maintenance and Lubrication	1.1 credits
○ AIT 2102 Power Transmission Systems	1.3 credits
○ AIT 2103 Advanced Mechanical	1.6 credits
➤ AIT 290 Selected Topics in AIIT	0.1-5 credits
➤ MTT 112 Fundamentals of Machine Tools B	4 credits
➤ EET 276 Programmable Logic Controllers	2 credits
➤ EET 277 Programmable Logic Controllers Lab	2 credits
➤ IMT 100 Welding for Maintenance	3 credits
➤ IMT 101 Welding for Maintenance Lab	2 credits
➤ ACR 100 Refrigeration Fundamentals	3 credits
➤ ACR 101 Refrigeration Fundamentals Lab	2 credits