Amarillo College Curriculum Committee Form

Program Changes – Revise Curriculum

Program Division: Health Sciences
Department: Emergency Medical Services Professions
Program Point of Contact: Wade Olsen, Program Director (354-6077)
Date of Submission: May 9, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.0904
Associated Study Area Identify primary program associated with course	EMSP
Planned Effective Date:	Fall 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Emergency Medical Services Professions
Degree Audit Name (e.g. AERM.AAS)	EMSP.CERT, EMSP.CERT.AEMT
Reason/Justification for Request: Change the courses in these certificates to align with the EMSP.AAS degree plan that has previously been approved by the committee.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: Current students will continue in the their current catalog.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Change the number of SCH of award

Current	Proposed
MAJOR COURSE REQUIREMENTS (**41** Semester Hours)	MAJOR COURSE REQUIREMENTS (**41** Semester Hours)
EMSP 1147: Pediatric Advanced Life Support	EMSP 1147: Pediatric Advanced Life Support
EMSP 1149: Pre-Hospital Trauma Life Support	EMSP 1149: Pre-Hospital Trauma Life Support
EMSP 1438: Introduction to Advanced Practice	EMSP 1438: Introduction to Advanced Practice
EMSP 1455: Trauma Management	EMSP 1455: Trauma Management
EMSP 1456: Patient Assessment and Airway Management	EMSP 1456: Patient Assessment and Airway Management
EMSP 2135: Advanced Cardiac Life Support	EMSP 2135: Advanced Cardiac Life Support
EMSP 1266: Practicum/Field Experience I	EMSP 1266: Practicum/Field Experience I
EMSP 2237: Emergency Procedures	EMSP 2237: Emergency Procedures
EMSP 2267: Practicum/Field Experience II	EMSP 2267: Practicum/Field Experience II
EMSP 2430: Special Populations	EMSP 2430: Special Populations
EMSP 2434: Medical Emergencies	EMSP 2434: Medical Emergencies
EMSP 2444: Cardiology	EMSP 2444: Cardiology
EMSP 2243: Assessment Based Management	EMSP 2243: Assessment Based Management
EMSP 2205: EMS Operations	EMSP 2205: EMS Operations
EMSP 2262: Clinical I	EMSP 2262: Clinical I
EMSP 2263: Clinical II	EMSP 2263: Clinical II
~~RELATED REQUIRED COURSES (7 Semester Hours)~~	TOTAL (41 Semester Hours)
~~BIOL 2401: Human Anatomy and Physiology I~~	
~~**MATH 1314: College Algebra**~~	
TOTAL (~~**48**~~ Semester Hours)	

Current		Proposed	
MAJOR COURSE REQUIREMENTS **(19** Semester Hours)		MAJOR COURSE REQUIREMENTS **(19** Semester Hours)	
EMSP 1149: Pre-Hospital Trauma Life Support	1	EMSP 1149: Pre-Hospital Trauma Life Support	1
EMSP 1266: Practicum/Field Experience I	2	EMSP 1266: Practicum/Field Experience I	2
EMSP 1438: Introduction to Advanced Practice	4	EMSP 1438: Introduction to Advanced Practice	4
EMSP 1455: Trauma Management	4	EMSP 1455: Trauma Management	4
EMSP 1456: Patient Assessment and Airway Management	4	EMSP 1456: Patient Assessment and Airway Management	4
EMSP 2205: EMS Operations	2	EMSP 2205: EMS Operations	2
EMSP 2266: Clinical I	2	EMSP 2266: Clinical I	2
~~RELATED REQUIRED COURSES (7 Semester Hours)~~		TOTAL (19 Semester Hours)	
~~BIOL 2401: Human Anatomy and Physiology I~~	~~4~~		
~~MATH 1314: College Algebra~~	~~3~~		
TOTAL (~~26~~ Semester Hours)			

EMSP.CERT

1st Year

1st Semester 12 hrs

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
EMSP	1438	Introduction to Advanced Practice	WECM					4
EMSP	1455	Trauma Management	WECM					4
EMSP	1456	Patient Assessment and Airway Management	WECM					4

1st Year

2nd Semester 7 hrs

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
EMSP	1266	Practicum – Field Experience I	WECM					2
EMSP	1149	Pre-hospital Trauma Life Support	WECM					1
EMSP	2205	EMS Operations	WECM					2
EMSP	2262	Clinical I	WECM					2

2nd Year

1st Semester 16 hrs

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
EMSP	2430	Special Populations	WECM					4
EMSP	2434	Medical Emergencies	WECM					4
EMSP	2444	Cardiology	WECM					4
EMSP	2237	Emergency Procedures	WECM					2
EMSP	2135	Advanced Cardiac Life Support	WECM					1
EMSP	1147	Pediatric Advanced Life Support	WECM					1

2nd Year

2nd Semester 6 hrs

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
EMSP	2263	Clinical II	WECM					2
EMSP	2267	Practicum II	WECM					2
EMSP	2243	Assessment Based Management	WECM					2

41 Total hours

EMSP.CERT.AEMT

1st Year

1st Semester 12 hrs

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
EMSP	1438	Introduction to Advanced Practice	WECM					4
EMSP	1455	Trauma Management	WECM					4
EMSP	1456	Patient Assessment and Airway Management	WECM					4

1st Year

2nd Semester 7 hrs

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
EMSP	1266	Practicum – Field Experience I	WECM					2
EMSP	1149	Pre-hospital Trauma Life Support	WECM					1
EMSP	2205	EMS Operations	WECM					2
EMSP	2262	Clinical I	WECM					2

19 Total hours

Mark E. Rowh

From: Wade Olsen
Sent: Wednesday, April 20, 2016 12:35 PM
To: Deborah L. Vess; Mark E. Rowh; Kristin D. McDonald-Willey
Subject: Request to be an agenda item at this Friday's Curriculum Meeting

Hello All,

I require agenda time at Friday's curriculum committee meeting to present a change that is urgently necessary for our EMSP curricula. This change was not included in submitted paperwork for the reasons described below.

> Yesterday, I received a request for a paramedic course outside the Amarillo Area. In that request, we were asked if there was any way to provide a paramedic ***certificate*** course without the requirements of Biol-2401 (A&P I) and Math-1314 (College Algebra). To support this request, South Plains College's (Levelland) accredited paramedic certificate program was cited, which does not include these courses. Of immediate concern is the possibility that South Plains College would be able to say "YES" if AC cannot. Please note: We have had similar requests from other Texas panhandle regions as well as from the City of Amarillo Fire Department.
>
> Data is *now* available to guide our decision. After comparing similarly populated college's throughout Texas, we discovered roughly a 60/40 split in the inclusion of the courses listed above (or other, similar courses). Of that split, the 40% who do not include these courses are located in primarily rural areas of Texas. This suggests our program is a local needs issue which is not adversely affecting the EMS profession. Our **local** region seems to be in this camp based on anecdotal feedback, as mentioned above.

I request the committee's approval to remove both Biol-2401 (A&P I) and Math-1314 (College Algebra) from all EMSP ***certificate*** programs. However, these courses will remain in the EMSP.AAS program as currently proposed. I believe these changes will increase the appeal of AC's paramedic program within our region without damaging academic excellence or the status of our current program's accreditation. We can say "Yes". The one downside of the change is the loss of our marketable skills award at the EMT level. However, the remaining EMSP certificates will remain "stackable" and at their current level 1 or level II status.

Respectfully,

Wade Olsen, M.Ed., LP, NRP
EMSP Program Director
Amarillo College
P.O. Box 447
Amarillo, TX 79178
806-354-6077 (office)
806-354-6076 (fax)

Curriculum Revision Request Form

Division: Health Sciences

Department / Program: Certified Nursing Assistant

Prepared by: Kim Crowley

Request:

1. **Add Courses to Inventory**: NURA 1291, NURA 1307, NURA 1360, NURA 1401, PSYT 1313

2. **Add Academic Major Code:** NURA.CERT (Level 1 Certified Nursing Assistant Code)

Amarillo College Curriculum Committee Form

Course Changes – Add NURA 1291 Course to the Inventory

Program Division: Health Sciences
Department: **Center For Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley,** Associate Dean of Health Sciences (354-6087)
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Certified Nurse Aide
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Professional Nurse Assistant / Aid Skills
Course Prefix and Number:	NURA 1291
Course Description:	Addresses recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student and provides feed-back relevant to performance of the skills as they relate to the licensing board exam. This course was designed to be repeated multiple times to improve student proficiency.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): This course allows for feedback related to skills performed in the clinical setting and differentiation from real world skills and tasks and the standard mandated State Skills and tests. This course can also serve to update students who need to re-activate their CNA registry	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM) •
Instructional Method	• Lecture – Instruction delivered in face-to-face format Faculty give oral presentation facts/figures
Is this class intended to be included in next year's core curriculum?	• No

If not a class intended for core inclusion, please list your outcomes. Otherwise, leave this table blank.
Course Outcomes for Course Not Intended for Core 1. **Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry** 2. **Demonstrate safety practices** 3. **Demonstrate appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.**

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Every semester
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited (CoBoard will not fund more than 3 repeats of a course, but student may be allowed unlimited times)

Requested Information	Information Response
List any pre-requisites (prefix and number) and provide a justification	None
List any co-requisites (prefix and number) and provide a justification	None
Are there fees? (Yes or No) and if so, please list the fee information	standard academic fees
Number of semester credit hours or contact hours	2
Number of weekly lecture hours (If none, please leave blank)	2
Number of weekly lab hours (If none, please leave blank)	
Number of weekly external hours (If none, please leave blank)	

Amarillo College Curriculum Committee Form

Course Changes – Add NURA 1307 to the Inventory

Program Division: Health Sciences
Department: **Center For Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley,** Associate Dean of Health Sciences (354-6087)
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Certified Nurse Aide
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Introduction to Body Systems
Course Prefix and Number:	NURA 1307
Course Description:	A basic study of the structures and functions of the human body.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): This course provides a foundational level of knowledge to prepare students for successful completion of the more advanced patient care courses as well as prepares them for successful completion of more advanced anatomy type courses. This course is needed in order to provide the rationale behind the skills that are required in the overall program.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM) •
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format Combination of Lecture/Lab Instruction •
Is this class intended to be included in next year's core curriculum?	• No

If not a class intended for core inclusion, please list your outcomes. Otherwise, leave this table blank.
Course Outcomes for Course Not Intended for Core 1. Identify the structures of the major body systems 2. Describe the functions of each system 3. Discuss correlation among body systems.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Every semester
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited (CoBoard will not fund more than 3 repeats of a course, but student may be allowed unlimited times)

Requested Information	Information Response
List any pre-requisites (prefix and number) and provide a justification	None
List any co-requisites (prefix and number) and provide a justification	None
Are there fees? (Yes or No) and if so, please list the fee information	24.00 lab fee, blackboard fee, and standard academic fees
Number of semester credit hours or contact hours	3
Number of weekly lecture hours (If none, please leave blank)	2
Number of weekly lab hours (If none, please leave blank)	2
Number of weekly external hours (If none, please leave blank)	0

Amarillo College Curriculum Committee Form

Course Changes – Add NURA 1360 to the Inventory

Program Division: Health Sciences
Department: **Center For Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley,** Associate Dean of Health Sciences (354-6087)
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Certified Nurse Aide
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Clinical Nursing Assistant / Aid
Course Prefix and Number:	NURA 1360
Course Description:	A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): This course provides opportunity to practice and master fundamental patient care skills in real world healthcare situations in order to ensure students master the entry level skills for a nurse assistant / aid.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM) •
Instructional Method	• Clinical – External Learning Experience Workplace settings where students learn/apply program theory and management of the workflow
Is this class intended to be included in next year's core curriculum?	• No

If not a class intended for core inclusion, please list your outcomes. Otherwise, leave this table blank.

Course Outcomes for Course Not Intended for Core

1. **Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry**
2. **Demonstrate legal and ethical behavior**
3. **Demonstrate safety practices**

4. **Demonstrate interpersonal and teamwork skills**
5. **Demonstrate appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.**

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Every semester
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited (CoBoard will not fund more than 3 repeats of a course, but student may be allowed unlimited times)

Requested Information	Information Response
List any pre-requisites (prefix and number) and provide a justification	None
List any co-requisites (prefix and number) and provide a justification	NURA 1401 Provides the foundational knowledge for performance of the skills in the clinical setting and provide the instructor with appropriate opportunity to ensure the ability of the student to safely work with the patient population at hand.
Are there fees? (Yes or No) and if so, please list the fee information	24.00 lab fee, blackboard fee, and standard academic fees
Number of semester credit hours or contact hours	3
Number of weekly lecture hours (If none, please leave blank)	
Number of weekly lab hours (If none, please leave blank)	
Number of weekly external hours (If none, please leave blank)	9 if offered in a 16 week semester.

Amarillo College Curriculum Committee Form

Course Changes – Add NURA 1401 to the Inventory

Program Division: Health Sciences
Department: **Center For Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley,** Associate Dean of Health Sciences (354-6087)
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Certified Nurse Aide
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Nurse Aid for Healthcare
Course Prefix and Number:	NURA 1401
Course Description:	Knowledge, skills, and abilities essential to provide basic care to residents of long-term care facilities. Topics include resident's rights, communication, safety, observation, reporting and assisting residents in maintaining basic comfort and safety. Emphasis on effective interaction with members of the health care team, restorative services, mental health, and social service's needs.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): This course provides a foundational level of knowledge to prepare students for successful work with geriatric patients in the long term care setting. This course is needed in order to provide the rationale and hands on practice for the skills that are required in the overall program.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM) •
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format Combination of Lecture/Lab Instruction •
Is this class intended to be included in next year's core curriculum?	• No

If not a class intended for core inclusion, please list your outcomes. Otherwise, leave this table blank.
Course Outcomes for Course Not Intended for Core 1. Provide basic care to residents of long-term care facilities. 2. Communicate and interact effectively with residents and their families, with sensitivity to the psychosocial needs of residents. 3. Assist residents in attaining and maintaining maximum functional independence. 4. Protect, support and promote the rights of residents. 5. Provide safety and preventive measures in the care of residents. 6. Demonstrate skill in observing, reporting and documentation. 7. Function effectively as a member of the health care team.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Every semester
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited (CoBoard will not fund more than 3 repeats of a course, but student may be allowed unlimited times)

Requested Information	Information Response
List any pre-requisites (prefix and number) and provide a justification	None
List any co-requisites (prefix and number) and provide a justification	None
Are there fees? (Yes or No) and if so, please list the fee information	24.00 lab fee, blackboard fee, and standard academic fees
Number of semester credit hours or contact hours	4
Number of weekly lecture hours (If none, please leave blank)	3
Number of weekly lab hours (If none, please leave blank)	2
Number of weekly external hours (If none, please leave blank)	0

Amarillo College Curriculum Committee Form

Course Changes – Add PSYT 1313 to the Inventory

Program Division: Health Sciences
Department: **Center For Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley,** Associate Dean of Health Sciences (354-6087)
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Certified Nurse Aide
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Psychology of Personal Adjustment for Healthcare Professional
Course Prefix and Number:	PSYT 1313
Course Description:	Overview of personal, social, and work adjustment skills needed for working in the Healthcare fields.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): This course provides the soft skills foundations required by employers to ensure that entry level employees recognize foundational elements of written and oral communication in the healthcare setting as well as critical thinking and cultural communication. Currently our most requested skill from employers is Soft Skills communication and critical thinking.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM) •
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format Combination of Lecture/Lab Instruction •
Is this class intended to be included in next year's core curriculum?	• No

If not a class intended for core inclusion, please list your outcomes. Otherwise, leave this table blank.
Course Outcomes for Course Not Intended for Core 1. Demonstrate communication competence and critical thinking through an understanding of the foundational communication models. 2. Demonstrate essential public speaking skills in professional presentations. 3. Demonstrate written and oral competencies as it relates to employment (including job searches, interviews, interpersonal interaction, conflict management, leadership and performance appraisals.) 4. Apply essential dyadic and small group processes as they relate to the workplace. 5. Utilize various technologies as they relate to competent communication. 6. Demonstrate effective cross-cultural communication. 7. Recognize current medical terms and their meaning 8. Complete a professional resume

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Every semester
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited (CoBoard will not fund more than 3 repeats of a course, but student may be allowed unlimited times)

Requested Information	Information Response
List any pre-requisites (prefix and number) and provide a justification	None
List any co-requisites (prefix and number) and provide a justification	None
Are there fees? (Yes or No) and if so, please list the fee information	No
Number of semester credit hours or contact hours	3
Number of weekly lecture hours (If none, please leave blank)	2
Number of weekly lab hours (If none, please leave blank)	2
Number of weekly external hours (If none, please leave blank)	0

Amarillo College Curriculum Committee Form

Program Changes – Add a New Major Code or Reactivate a Major Code

Program Division: Health Science
Department: **Center for Continuing HealthCare Ed.**
Program Point of Contact: **Kimberly Crowley, Associate Dean Health Science** (354-6087)
Date of Submission: May 13th, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Certified Nurse Aide (CNA)
Planned Effective Date:	Term: Fall Year: 2016
Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Certified Nurse Aide
Suggested Degree Audit Name (e.g. AERM.AAS) Internal degree audit names will come from the Office of the Registrar. They typically follow the formula: (Rubric).(degree or certificate type).(identifying information). Contact Diane Brice for assistance.	NURA.CERT
Program Description: (See AC catalog for examples)	The Certified Nurse Aide Program is designed to provide the student with the necessary job skills and related technical information to work as an entry-level Nurse Aide in a long term care medical facility. The student learns to perform clerical functions such as obtaining and maintaining patient data, telephone etiquette, chain of command, OBRA and Ombudsman regulations. Clinical functions include taking and recording vital signs; performing height and weight measurements for adults; measuring intake and output, infection control, restorative care, range of motion, assistance with activities of daily living and performing basic first aid and CPR procedures. Upon completion of this curriculum, a certificate will be awarded. The certificate award enables the student to sit for the state certification exam. A grade of C or higher is required for satisfactory completion of all courses in the curriculum. To continue in the program, a student may repeat a course one time, and may repeat no more than two courses while enrolled in the program. The term repeat shall be interpreted to mean re-enrollment following withdrawal, drop or an unsatisfactory grade for a course. A student seeking entry into the Certified Nurse Aide program must file a specific program application and complete additional admission procedures. Application information is located on the CNA web site.
Program Advisor(s) Name, Phone Number(s), and Email(s): (See AC catalog for examples)	William Ratliff 354-6085 will.ratliff@actx.edu

Program Web page Link for Catalog (See AC catalog for examples)	https://www.actx.edu/ch/certified-nurses-aide-program

Reason/Justification for Request:
(Considerations for adding a new major code may include industry need, transferability, etc.)
(Considerations for reactivating a major code in a 3-year window include description of how it will be successful this time)

Justification for the request to create the Certified Nurse Aide Level one Certificate (CNA) include the industry need with a projected growth rate listed as higher than average growth of professions for the entire state of Texas and across the nation. Additional justifications include the ability of this certificate to serve as a foundational entry point for the Patient Care Technician and Medical Assistant programs and the ability to facilitate articulation for outside students and high school graduates to move more seamlessly into Health Science Programs. This program will allow Amarillo College to begin to capture completers from the 200 students who move through some type of Amarillo College Continuing Education CNA program already. The program will add diversity to the student opportunities to enter into the CNA path and diversify potential financial aid options available to them.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Type of Program Proposed	o Level 1 Certificate (15-42 SCH) Can be completed in 1-year or less TSI/Assessment exams not required

Requested Information	Information Response
Total Semester Credit Hours (SCH) (Note: If WECM, include pre-requisites per manual)	16
Length of Program in Months	Five months – one full semester
Who is the full-time program administrator who will oversee all laws, rules, and guidelines? (Note: This administrator must hold proper credentials, have experience, and demonstrated competence in this area. Also, must have administrator in WECM areas.)	Michele Rupe RN
What are your programs goals and intended outcomes and objectives? For this question, if you wish, you may go ahead and complete a curriculum map or you can just list the goals/outcomes you would provide on the map. (If WECM, also note how basic and workforce skills are integrated into the curriculum) Note: All major codes should have goals/outcomes that incorporate in Bloom's taxonomy verbs, general education competencies, and at least one high-impact practice.	• Demonstrate basic care of residents of long-term care facilities. • Communicate and interact effectively with residents and their families, with sensitivity to the psychosocial needs of residents. • Assist residents in attaining and maintaining maximum functional independence. • Protect, support and promote the rights of residents. • Provide safety and preventive measures in the care of residents. • Demonstrate skill in observing, reporting and documentation. • Function effectively as a member of the health care team.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Can this program be completed within two and one-half years (including pre-requisites) with full-time attendance? (Note: Students must be able to do so)	o Yes
Are current faculty properly credentialed and/or can credentialed faculty be recruited and hired? (Note: Must meet SACS-COC requirements)	o Yes
Are you planning to verify entry-level workplace competencies via a capstone experience, credentialing exam, external learning experience, or a combination? (Note: Required for WECM for last term – See "Verification of Workplace Competencies" and related requirements)	o Yes o If yes, how will you meet the requirements? Successful participation in external clinical experience with skills demonstration and successful completion of the State Nurse Aide Competency Evaluation Service Exam administered through Pearson Vue.
Are state or national accrediting options, certifications, or equivalent recognitions available? (Note: Minimum WECM requirement: • Must Seek or if graduates required by accrediting body before can apply, must then apply within 12 months of first graduating class • Institutions must communicate any limitations to students due to non-accreditation of a program within 12 months)	o Yes o Amarillo College CCHcE is already an approved Texas NATCEP – Nurse Aide Training and Competency Evaluation Program o NATCEPs are required to ensure that all Department of Aging and Disability Services Rules are enforced and to approve students to take the state exam only after completion of all required competencies.

Are students eligible to seek credentialing upon graduation without additional work experience/education unless commonly required for all applicant for the credential? (Note: For technical courses, WECM states institution must ensure this is possible)	o Yes

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
What percent of this program will be offered via distance learning?	o Less than 25%
Will this program use only existing, approved courses?	o No • If no, make sure to also submit the "Add a Course to Inventory" form with this submission

NOTE: If a new program is based on non-traditional models such as apprenticeship models, please refer to all related regulations and state submission requirements in the GIPWE.

COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

Ensure the following:

- If AAS, 50-75% is drawn from common technical specialty identified by CIP and the rest made up of 15 general education course hours and support courses (must document if more academic required due to FOS or advisory committee)
- If AAS, 3 or fewer courses can be Special Topics or Local Needs; If Level 2 certificate, 2 or fewer courses can be Special Topics or Local Needs; If Level 1 certificate, 1 or no courses can be Special Topics or Local Needs
- If AAS or CERT, all curriculum must align with licensing/accrediting authority (if applicable)
- Lecture/Lab Hours must fall into allowable contact ranges (See Table 4.1 on pg. 33 number at bottom or 37 pdf of GIPWE)
- For WECM, the course sequencing must be arranged so students cannot enroll in a course and its pre-requisite in same term unless both courses can be delivered in a compressed format without an overlap of the two courses.
- Semesters (16 weeks and shorter) should not award more than one SCH per week of instruction.

1st Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
PSYT	1313	Psychology of Personal Adjustment for Professional Healthcare Providers	WECM	2	2		48	3
NURA	1307	Introduction to Body Systems	WECM	2	2		48	3
NURA	1401	Nurse Aid for Healthcare	WECM	3	2		64	4
NURA	1460	Clinical –Nursing Assistant / Aide	WECM	3	2	12	192	4
NURA	1291	Professional Nurse Aide Skills (Special Topics)	WECM	2	0		32	2

Major Course Requirements Hours = 16 hours		
Course Prefix and Number	**Course Name**	**Credit Hours**
PSYT 1313	Psychology of Personal Adjustment for Professional Healthcare Providers	3
NURA 1307	Introduction to Body Systems	3
NURA 1401	Nurse Aid for Healthcare	4
NURA 1460	Clinical –Nursing Assistant / Aide	4
NURA 1291	Professional Nurse Aide Skills (Special Topics)	2

BRAND NEW PROGRAM SECTION
(See pages 35-40 of GIPWE)

SECTION 1 – NEED TO DETERMINE IF NEW PROGRAM BASED ON THECB DEFINITIONS	
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Does this major code represent a significant departure in content, credential level, or location from those current offered?	Yes This Major Code moves the current Continuing Education pathway of Nurse Aide into an academic model at a Level One Certificate rather than a CE internal award– and Amarillo College will offer both the CE and the academic pathway
Does your major code meet one of the following criteria? o Create certificate (including technical certificate or Field of Study certificate) or an AAS in a program for which the college currently has no offerings on its inventory o Create a certificate in a program that has been deactivated for over three years o Create an associate degree in a program in which the college currently only offers a certificate?	Yes This new program offers course which are not in the current AC inventory.

SECTION 2 – ANSWER THE REMAINING QUESTIONS ONLY IF YOU ANSWERED "YES" TO EITHER QUESTION IN SECTION 1. OTHERWISE, YOU HAVE COMPLETED AND MAY SUBMIT THIS FORM.

Notes:
- o If we currently have programs that do not have this information on file (based on the above definitions), we need to collect it because we must be able to present this information in case of an audit.
- o Sequence offerings of workforce continuing education courses for which the total is 360 or more should also keep this information on file.

Requested Information	Information Response
Are you under a corrective action plan for related program areas?	o No

NEW PROGRAM – Part A – Documentation of Workforce Demand for the Program Note: Director of IE will complete Step #1 – Letter of Intent to Higher Education Regional Councils	
Requested Information	**Information Response**
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Identify the workforce demand for this major (identify the 2 or more required reasons why the program is needed AND provide information demonstrating need. (See GIPWE Chapter 3 and Chapter 5, B, 2a) Note: Links to data sources form the Texas Workforce Commission are available here. Listed as an occupation with the most job growth by the Bureau of Labor Statistics http://www.bls.gov/emp/ep_table_104.htm Listed on Texas Workforce Targeted Occupations list for the Panhandle	Reasons for new program (select/justify 2 or more) o (2) Prepare students for an occupation that is on the list of targeted, high demand, or priority occupations on the institution's Local Workforce Development Board website; o (4) Offer a program for which the Occupational Outlook Handbook, published by the Bureau of Labor Statistics, indicates high occupational demand for the next five to 10 years; **JUSTIFICATIONS** **(Note: You may also attach support materials)** **REASON 1 JUSTIFICATION:**

https://wspanhandle.com/PagesWSP/lib/LaborMarketTargetedOccupations.php http://www.bls.gov/ooh/healthcare/nursing-assistants.htm#tab-6 Employment of nursing assistants is projected to grow 18 percent from 2014 to 2024, much faster than the average for all occupations. Employment of orderlies is projected to grow 11 percent from 2014 to 2024, faster than the average for all occupations.	**#2. This occupation is listed as high job growth occupation for the Panhandle by TWC.** **REASON 2 JUSTIFICATION:** **#4 This occupation is expected to grow much faster than average according to the Texas Workforce Commissions Occupational Outlook Handbook**

NEW PROGRAM – Part B – Assurance of Basic and Workforce Skills	
Requested Information	**Information Response**
How did you form and how will you evaluate your program competencies (please include attachments as necessary)? (See GIPWE Chapter 3 and Chapter 5, B, 2b) Notes: • Must demonstrate academic skills, workforce skills, knowledge, and abilities for employment • THECB suggests hand-on experience opportunities be made available • Can use TSSB, Program Competency Profile, DWA CAP, DACUM, SCANS, etc. to ensure competency, but must show program can address and master competencies.	Program evaluation will be based on meeting the required competencies detailed in the Texas Nurse Assistant Core Curriculum and the National Nurse Aide Assessment Program competencies which have been used to develop the program. All students will practice skills in the lab setting and be checked for competency prior to attending external clinicals where they will demonstrate competency in a work setting.
How will developmental education courses be made available to be taken prior or in conjunction with curriculum for Students with academic skill deficiencies? Notes: See GIPWE "Developmental Education Courses" and/or TSI regulations	The CNA program has been developed with support hours and contextualized developmental materials throughout the program in order to enhance student success and the program staff work closely with the Academic Success Division in order to transition students from the developmental courses into the program.
How will career development opportunities be made available To students? (See GIPWE "Career Development Personnel")	Career development skills and activities are integrated into the courses and include resume writing, mock interviews and guest presentations from the Career Center as well as potential employers as they are available. The program also utilizes the services of the CCHcE Advising Associate – Will Ratliff and has access to the Amarillo College Career Center staff for student assistance
If this program has career development personnel associated with career guidance/counseling or paraprofessional to assist with job placement, are they properly credentialed or will people who are properly credentialed be recruited and hired? (See GIPWE "Career Development Personnel") Notes: • Career Development Personnel must meet SACS-COC standards and have a master's degree in counseling or a closely related field OR a master's degree with significant coursework or experience in career development; in exceptional cases, outstanding professional experience and competency may substitute. • Paraprofessionals – Must demonstrate academic preparation and experience consistent with assignment	This program will utilize the services of the AC Career Center for career development.

NEW PROGRAM – Part C – Enrollment Management Plan	
Requested Information	**Information Response**
Provide program-specific enrollment management Plan information (SEE GIPWE Chapter 5, B, 2c)	1. Identify articulated feeder institutions and programs (e.g. high school offering dual credit courses) _ Randall and Canyon High School, Hereford and Dumas High School 2. Identify your strategy for enrollment projection that includes student recruitment and program marketing _Recruitment efforts are coordinated by the Dean and Associate Dean of Health Science with the assistance of the CCHcE Advising Associate and include in person recruitment, web page, print catalog and facebook marketing. 3. Identify a plan that specifies activities for access, recruitment, retention, and placement of students for special populations: _The Program Coordinator and the Advising Associate work closely with the AEL and GED programs to recruit students and maintain contact with Workforce personnel and DARS in order to recruit from multiple potential student populations. 4. (If applicable) Identify a history of enrollment in related continuing education/workforce education courses __Historically AC has enrolled between 175 and 200 CNA students into the CE courses each year. 5. Projected enrollment (including the anticipated number of majors) for first year of program operation ____35-40 6. Anticipated annual enrollment after first year __70-80 7. Once fully implemented, anticipated annual graduation rate _60

NEW PROGRAM – Part D – Program Linkages and Demonstration of Non-Duplication	
Requested Information	**Information Response**
What are the program linkages? (See GIPWE Chapter 3 and Chapter 5, B, 2d) Notes: Program linkages are arrangements that facilitate the transfer of courses or course credits and promote seamless educational pathways. Linkages may be demonstrated by articulation agreements that provide students transfer, inverted degree plans, and advance standing opportunities. 1) Identify similar workforce education programs and related training programs in region/service area. Assistive data are available at the Coordinating Board's Texas Higher Education Data Web site 2) Include documentation that contact has been made with appropriate institutional administrators to initiate program-specific articulation 3) Include a timeline for the formal initiation of these linkages 4) Include a statement specifying the form(s) of program linkage(s) that will be initiated (e.g. articulation agreements, programs of study, dual credit; Advanced Technical Credit)	The CNA certificate program provides a seamless pathway into the current Patient Care Tech Certificate Program and on into the Clinical Medical Assistant Program. This program also assists Texas Tech students with entry requirements for CNA as they move into the Second Degree Nursing Program. This program has been developed with input from Texas Tech, and multiple regional high schools through the work of the AVATAR vertical alignment grant and will be shared

Considerations: A) If a certificate program, does this provide progression toward an AAS degree? If an AA/AS/etc. does this provide progression toward a bachelor's degree? B) If a degree intended for transfer, when/how will linkages to transfer institutions be made?	with regional colleges and high schools for potential implementation throughout the region.
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Are there similar workforce education programs in the region/service area (i.e. 50 miles of proposed program location)?	o No – there are no academic level CNA programs within our region.
NEW PROGRAM – Part E – External Agency Approval, Certification, or Accreditation	
Requested Information	**Information Response**
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Are state or national accrediting options, certifications, or equivalent recognitions available? (See Coordinating Board Rules Chapter 9, Subchapter G) (See GIPWE Chapter 3 and Chapter 5, B, 2e) (Note: Minimum WECM requirement: • Must Seek or if graduates required by accrediting body before can apply, must then apply within 12 months of first graduating class • Institutions must communicate any limitations to students due to non-accreditation of a program within 12 months)	o Yes o If yes, what are they and when will you seek them? Accreditation as a Texas NATCEP – Nurse Aid Training Competency Evaluation Program is required and AC is already approved. o If yes, what are the graduation/placement standards? All completers must have competency on all 22 testable skills evaluated prior to completion and be submitted as eligible to take the Sate Exam.
Are you planning to apply for program recognition from the Texas Skills Standards Board (TSSB)?	o No

NEW PROGRAM – Part F – Determining Adequate Funding	
Requested Information	**Information Response**
Please estimate the faculty needed to serve the program. (See GIPWE Chapter 3 and Chapter 5, B, 2f) Notes: FACULTY (See GIPWE Chpt. 2 for more information) Associate's Degree – 1 FT faculty primarily teaching within program Certificate Degree – 1 FT coordinator in technical area (not necessarily FT to program) and 1 PT member in area)	# of FT faculty: __1___ # of PT faculty: __6___

NEW PROGRAM – Part F – Determining Adequate Funding Continued	
What facilities, classroom, and/or laboratory space will support the number of students projected to enroll? Explain if these facilities are New/Renovated or Existing.	
Facilities	New/Renovated or Existing?

WCA 206	Existing

NEW PROGRAM – Part F – Determining Adequate Funding	
Requested Information	**Information Response**
Please provide a general list of the required equipment Notes: You can include items such as possible donations in your response.	**NEW EQUIPMENT NAME AND ESTIMATED COSTS** **All necessary equipment is already available within the Department.** **EXISTING EQUIPMENT AND NOTE IF UP TO INDUSTRY STANDARDS All supplies are up to standards and adequate quantities are available** **Clinical Lab - with divider curtains for 4-6 Beds** **Adjustable bed with side rails (must be working)** **Chair** **Clock preferred or Wrist Watch with second hand** **Fax Machine (accessible to skills lab)** **Mannequin with removable catheter (must be a full female mannequin)** **Privacy curtain, screen or door if private room** **Scale, calibrated (bathroom/standing)** **Signaling device (may be non-functional)** **Sink with running water in the room** **Soiled linen container** **Table, bedside** **Table, over bed** **Toilet/Bedside Commode/Collection container clearly labeled Commode** **Wastebasket with liner** **Wheelchair with footrests** **Basin, bath** **Basin, emesis** **Bedpan, (standard)** **Blood Pressure cuff** **Denture cup w/lid** **Dentures** **Knee-high elastic stockings** **Measuring container (graduated - at least 250 ml's/cc's units clearly visible)** **Stethoscope, dual earpiece** **Thermometer, bath (optional)** **Transfer (gait) belt** **Alcohol swab or alcohol and cotton ball** **Antimicrobial spray/wipes** **Drinking cup (disposable)** **Emery board** **Food (typically eaten with spoon - no finger food) and beverage (water)** **Gloves, large, disposable** **Gloves, large, disposable non-latex**

	Gown, Isolation (long sleeve w/ neck & waist ties - cloth or disposable) **Hand Sanitizer** **Hand Wipes (may use washcloth)** **Lotion, in pump container (hypoallergenic & unscented)** **Meal tray with client's name on meal card** **Napkins/paper towels** **Orangewood stick** **Paper plates** **Paper towels** **Plastic bags (for wastebasket)** **Soap, liquid in pump container (hypoallergenic & unscented/non-rinseless)** **Spoons (disposable)** **Toilet tissue or Wipes** **Toothbrush (individually wrapped)** **Bath blanket (optional - sheet may be used)** **Clothing protector (bib, towel or napkin)** **Clothing (extra-large tops that open in the front - no hospital gowns)** **Gowns (patient)** **Linens: pillowcase, top and bottom sheets (fitted or flat)** **Pad, waterproof/incontinent (may use towel or draw sheet as waterproof pad)** **Pillows** **Towels** **Supportive devices (pillows, blanket rolls, wedges)** **Washcloth**

NEW PROGRAM – Part F – Determining Adequate Funding Continued	
First-Year Upfront Cost/Income Projections	
Total New Cost for Program:	The program will not require any start-up funds beyond current budget
Projected Tuition/Fees:	1624.25 per student = $56,848.75
Projected Local Funding:	No local funding has been identified
Projected State Funding:	Courses are funded at $3.22 / per student per hour potentially - $43,276.80
Projected Business Support:	No business support has been Identified
Projected Other Support: Please Specify:_____	Income from regional testing of students is reimbursed to AC at $10.00 per tester. With approximately 150 per year.
Total Projected Income:	$56,848.75 not including - potential state funding $43,276.80 = $100,125.55
Comments on 1st-Year Budget	Potential for decrease in CE funded students due to the shift to the academic program and potential for receipt of incentive points funding are being considered.

NEW PROGRAM – Part F – Determining Adequate Funding Continued	
Five-Year Cost and Revenue Projections	
Cost Projection:	$288,000.00
Revenue Projection:	$500,627.75
Total Income Projection:	508,127.75

Comments on 5-Year Budget	Total income projection includes testing reimbursement and potential state funding but does not include potential incentive funding.

NEW PROGRAM – Part G – Advisory Committee Minutes	
Requested Information	**Information Response**
How have Business and Industry partners and Advisory Committees provided feedback on this program and how will they do so in the future? (Please attach 2 or more advisory meetings demonstrating support) (See GIPWE Chapter 3 and Chapter 5, B, 2g) Notes: • Must establish advisory committee for each workforce ed. Program. • Existing programs must meet one time per year with quorum • Meeting minutes must be maintained and available upon request • During development of new programs – committee must meet in person twice and communicate consistently; At least 2 meeting minutes should clearly document support prior to new program application	Business and Industry partners have participated in discussions and curriculum reviews during the CNA, PCT advisory committee meetings in the Fall – they identified potential things that needed to be added to a CNA Certificate and this Spring the advisory committee was provided with the course matrix and asked for opinions and discussion. The AVATAR – Vertical Alignment project meetings also allowed for multiple agencies to participate in development and design of the program. In addition individual meetings with local healthcare organizations and the Director of CCHcE provided data and guidance.

Advisory Committee Meeting Minutes

PROGRAM COMMITTEE NAME:	Patient Care Tech / Clinical Nurse Assistant				
CHAIRPERSON:	Deborah Sugden				
MEETING DATE:	11/19/2015	**MEETING TIME:**	5:15 pm	**MEETING PLACE:**	West Campus Buiding A 109
RECORDER:	Sherrie Nunn			**PREVIOUS MEETING:**	N/A – First Meeting for the Program

MEMBERS PRESENT

List all members of the committee, then place an X in the box left of name if present

	NAME	TITLE	EMPLOYER INFO	PHONE	EMAIL
x	Jane Thomas	Administrator	Ussery Roan	806-322-8387	administrator@amarillovethome.com
x	Joanna Kluck	Administrator	King's Manor	806-364-0661	jkluck@kmmrs.com
x	Marge Dean		Texas Tech Internal Medicine	806-679-3846	margaret.dean@ttuhsc.edu
x	Deborah Sugden	Director of Nursing	Baptist Community Services	806-337-4567	dsugnden@bcsama.org
x	Jackie Hendrick	Director of Nursing	Ussery Roan	806-322-8387	don@amarillovethome.com
x	Angeline Reinart	Director of Nursing	Arbors	806-654-2385	areinart@bcsama.org
x	Tammie Tabor	CNO	Vibra Rehab Hospital	806-468-2981	ttabor@vhamarillo.com
x	Rena' Kuehler	Instructor	AACAL	806-673-2719	sheila.kuehler@amaisd.org
x	Kendra Hubbard	Instructor	Amarillo College		kdhubbard@actx.edu
x	Michele Rupe	Instructor	Amarillo College	806-467-3028	mmrupe22@actx.edu
x	Mark Rowh	Dean of Health Sciences	Amarillo College	806-354-6070	merowh@actx.edu
x	Kim Boyd	Instructor	Amarillo College	806-354-6060	kmboyd@actx.edu
x	Dana Woods		Amarillo College	806-231-0595	Dana_woods@cshhc.com
x	Saundra Thornton		Amarillo College		saundrathornton@actx.edu
x	Vanesta Jagrup		Amarillo College		vjagrup@actx.edu
x	Daniel Esquivel	Director Hereford Campus	Amarillo College	806-379-2750	dmesquivel@actx.edu
x	Danielle Arias		Amarillo College	806-379-2751	dnarias@actx.edu
x	Janice Johnston		Amarillo College	806-467-3110	jmjohnston@actx.edu
x	Will Ratliff	Advisor AC CCHcE	Amarillo College	806-354-6085	

AGENDA ITEM	ACTION DISCUSSION INFORMATION	RESPONSIBILITY
Welcome & Introductions	Sugden, Chairperson, called the meeting to order and introductions followed.	Deborah Sugden
Appointment of Chairperson	Deborah Sugden accepted the request of appointing her as chairperson	
Approval of Minutes	No prior minutes – discussion of minutes and who will be taking minutes	All committee members
Advisory Committee Handbook	Review of the Advisory Committee Handbook – why we need a committee, how often we meet – normally twice a year. 4:00 pm is decided as the best time of day.	Deborah Sugden

Advisory Committee Meeting Minutes

Advisor of Continuing Healthcare	Will discussed advising on all classes and he has panel cards for each field. He wanted to know about how employers recruit and having those relationships with employers to know what they want in an employee. Student retention in our programs will help students to become completers.	Will Ratliff
Continuing Healthcare Education	CCHcE has taken PCT program to curriculum committee for approval into an academic program. It has been approved and will go into effect in Fall of 2016	Kim Crowley
Old Business	Amarillo College has a DOL Grant since 2012 – the purpose is to accelerate career path options through simulation and technology along with tutoring and advising students in hopes to make them completers. New programs that they are helping with EKG PCT CMA; External evaluators help to evaluate the students after the programs by getting feedback from them. The DOL grant is over in Sept of 2016.	Janice Johnston
Affiliation Reports	Discussion of what community employers need/want in a CNA - BCS stated that they need to see more computer skills and ability to research on computers. They also wondered about personality tests and the job interview process, professionalism and cell phone policies. Other things that employers need are NHAD & Med Aide training from AC.	Deborah Sugden
Dean of Health Sciences	Mark Rowh provided a handout with the Amarillo College Mission & Values – explained that AC doesn't not want to place barriers in the way of the students. He mentioned that tutoring helps in the completion process.	Mark Rowh
Adjournment	Being no further business the meeting adjourned at 6:45 PM	
Date: 11/19/2015	**Executive Secretary Signature: Sherrie Nunn**	**Next Meeting: Fall 2016**

Course Name	WECM ID	SCH Hours	Lecture Hours	Lab Hours	Contact hours	WECM Contact Hour range	Tuition	Fees	Distance Learning Fee	Tech Fee	Malpractice	Total Course Cost per student	Resident of District	Specialized course fees	Distance Learning Fee
Semester One															
Psychology for Professional Healthcare Providers PSYT - 1313 3 SCH Hours	PSYT 1313	3	2	2	48	48-64	$144.00	$0.00	$30.00	$5.00		$179.00	$251.25	$24.00	$30.00
Introduction to Body Systems NURA 1307 - 3 SCH Hours	NURA 1307	3	2	2	48	48-112	$144.00	$0.00	$30.00	$5.00		$179.00	251.25	$24.00	$30.00
Nurse Aid for Healthcare – NURA 1401 – 3 SCH Hours	NURA 1401	4	3	2	64	64-112	$192.00	$0.00	$30.00	$5.00		$227.00	$335.00	$24.00	$30.00
Clinical –Nursing Assistant / Aide – NURA 1360 – 1 SCH Hour	NURA 1460	4	0	0	192	192-384	$576.00	$0.00	$30.00	$5.00	$19.50	$630.50	$251.25	$100.00	$30.00
Professional Nurse Aide Skills - NURA – 1291 (Special Topics) 1SCH hour	NURA 1291	2	2	0	32	32-96	$96.00	$97.00	$30.00	$5.00		$228.00	$189.50	$24.00	$30.00
Total :		16	9	6	384		$1,152.00	$97.00	$150.00	$25.00	$19.50	$1,443.50	$1,278.25	$196.00	$150.00
Total Program Cost per Student: $1443.50 for CE - Academic $1624.25															

Total Course Cost Per Student - Resident
$305.25
$305.25
$389.00
$381.25
$243.50
$1,624.25

Division: Health Sciences

Department/Program: Patient Care Technician (PCT)

Prepared By: Kim Crowley

Request:

1. **Add Courses to Inventory**: NURA 1307
2. **Change in Course Requirements:** NURA 1291, 1360, 1401
3. **Revise**: Revise Patient Care Technician Certificate (PCT.CERT) Curriculum

Amarillo College Curriculum Committee Form

Course Changes – Add NURA 1307 to the Inventory

Program Division: Health Sciences
Department: **Center For Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley,** Associate Dean of Health Sciences (354-6087)
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Patient Care Technician
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Introduction to Body Systems
Course Prefix and Number:	NURA 1307
Course Description:	A basic study of the structures and functions of the human body.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): This course provides a foundational level of knowledge to prepare students for successful completion of the more advanced patient care courses as well as prepares them for successful completion of more advanced anatomy type courses. This course is needed in order to provide the rationale behind the skills that are required in the overall program.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM) •
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format Combination of Lecture/Lab Instruction •
Is this class intended to be included in next year's core curriculum?	• No

If not a class intended for core inclusion, please list your outcomes. Otherwise, leave this table blank.
Course Outcomes for Course Not Intended for Core 1. Identify the structures of the major body systems 2. Describe the functions of each system 3. Discuss correlation among body systems.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Every semester
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited (CoBoard will not fund more than 3 repeats of a course, but student may be allowed unlimited times)

Requested Information	Information Response
List any pre-requisites (prefix and number) and provide a justification	None
List any co-requisites (prefix and number) and provide a justification	None
Are there fees? (Yes or No) and if so, please list the fee information	24.00 lab fee, blackboard fee, and standard academic fees
Number of semester credit hours or contact hours	3
Number of weekly lecture hours (If none, please leave blank)	2
Number of weekly lab hours (If none, please leave blank)	2
Number of weekly external hours (If none, please leave blank)	0

Amarillo College Curriculum Committee Form

Course Changes – Change Current NURA 1291 Course Requirements*

Program Division: Health Sciences
Department: **Center for Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley, Associate Dean of Health Sciences (354-6087)**
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Patient Care Technician
Course Title (Written Out)	Professional Nurse Assistant / Aid Skills
Course Prefix and Number	NURA 1291
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Other – Course length changed additional hours needed

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
This course was lengthened from 1 SCH to 2SCH in order to allow students more instructional time and to accommodate additional engagement activities to increase the rigor of the program and improve student success.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current NURA 1360 Course Requirements*

Program Division: Health Sciences
Department: **Center for Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley, Associate Dean of Health Sciences (354-6087)**
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Patient Care Technician
Course Title (Written Out)	Clinical Nursing Assistant / Aid
Course Prefix and Number	NURA 1360
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Other – Course length changed additional hours needed

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
This course was lengthened from 1 SCH to 3 SCH in order to allow students more instructional time and to accommodate additional engagement activities to increase the rigor of the program and improve student success.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current NURA 1401 Course Requirements*

Program Division: Health Sciences
Department: **Center for Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley, Associate Dean of Health Sciences (354-6087)**
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	51.3902
Associated Study Area Identify primary program associated with course	Patient Care Technician
Course Title (Written Out)	Nurse Aid for Healthcare
Course Prefix and Number	NURA 1401
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Other – Course length changed additional hours needed

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
This course was lengthened from 3 SCH to 4 SCH in order to allow students more instructional time and to accommodate additional engagement activities to increase the rigor of the program and improve student success.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Program Changes – Revise PCT.CERT Curriculum

Program Division: Health Science
Department: **Center for Continuing Healthcare Education**
Program Point of Contact: **Kim Crowley, Associate Dean of Health Science (354-6087)**
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	
Associated Study Area Identify primary program associated with course	
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Patient Care Technician
Degree Audit Name (e.g. AERM.AAS)	PCT.CERT
Reason/Justification for Request: This change is being submitted to ensure direct linkage and pathway progression from the new CNA Level one Certificate to the Patient Care Technician Certificate	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: No students are currently enrolled in the PCT program – this will lengthen the program slightly for students but will also provide a more solid foundation and preparation for students moving on to programs requiring Anatomy and Physiology. This will also strengthen the health science pathway and allow for strengthened articulation between programs. Program to be completed in three semester – a Spring, Summer and Fall.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• Yes
This change relates to the following items	• Change the number of SCH of award

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM	
Degree Name:	**Patient Care Technician**
Total Credit Hours:	**24**
Total Clock Hours:	**668**

PROPOSED CURRICULUM	
Degree Name:	**Patient Care Technician**
Total Credit Hours:	**32**
Total Clock Hours:	**860**

CURRENT Major Course Requirements Hours = 24 **INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS**		
Course Prefix and Number	**Course Name**	**Credit Hours**
HITT 1305	Medical Terminology	3
PSYT 1313 SPCH 1321	Personal Psychology for Healthcare Professionals (Or SPCH 1321) *once the course is completed	3
HITT 1301	Medical Data and Unit Coordination	3
NURA 1301	CNA - Lecture	3
NURA 1160	CNA - Clinicals	1
NURA 1191	CNA – Skills for NACES	1
MLAB 1201	Introduction to Laboratory Science	2
PLAB 1223	Phlebotomy	2
PLAB 1164	Phlebotomy Clinicals	1
NUPC 1320	Patient Care Technician	3
NUPC 1160	Patient Care Technician- Clinicals	1
MDCA 1191	Basic Skills for CMA	1

PROPOSED Major Course Requirements Hours = 32 **INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS**		
Course Prefix and Number	**Course Name**	**Credit Hours**
HITT 1305	Medical Terminology	3
PSYT 1313 SPCH 1321	Personal Psychology for Healthcare Professionals (Or SPCH 1321) *once the course is completed	3
HITT 1301	Medical Data and Unit Coordination	3
NURA 1401	CNA - Lecture	4
NURA 1460	CNA - Clinicals	4
NURA 1291	CNA – Skills for NACES	2
MLAB 1201	Introduction to Laboratory Science	2
PLAB 1223	Phlebotomy	2
PLAB 1164	Phlebotomy Clinicals	1
NUPC 1320	Patient Care Technician	3
NUPC 1160	Patient Care Technician- Clinicals	1
MDCA 1191	Basic Skills for CMA	1
NURA 1307	**Introduction to Body Systems**	**3**

NEW PROGRAM COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

1st Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
PSYT	1313	Psychology for Professional Healthcare Providers	WECM	2	2		48	3
HITT	1305	Med Term	WECM	3	0		48	3
NURA	1307	Introduction to Body Systems	WECM	2	2		48	3
NURA	1401	Nurse Aide for Healthcare	WECM	3	2		64	4
MDCA	1191	Basic Skills CMA	WCEM	1	1		16	1

2nd Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
NURA	1460	Clinical Nursing Assistant / Aide	WECM	0	0	12	192	4
NURA	1291	Professional Nurse Aide Skills	WECM	2	0	0	32	2
MLAB	1201	Introduction to Laboratory Science	WECM	2	1		32	2
PLAB	1223	Phlebotomy	WECM	2	1		48	2
PLAB	1164	Phlebotomy Clinicals	WECM	0	0	7	100	1
NUPC	1320	Patient Care Technician	WECM	2	4		96	3

2nd Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
NUPC	1160	Patient Care Technician Clinicals	WECM			6	56	1
HITT	1301	Medical Data and Unit Coordination	WECM	2	2		48	3

Advisory Committee Meeting Minutes

PROGRAM COMMITTEE NAME:	Patient Care Tech / Clinical Nurse Assistant				
CHAIRPERSON:	Deborah Sugden				
MEETING DATE:	11/19/2015	**MEETING TIME:**	5:15 pm	**MEETING PLACE:**	West Campus Buiding A 109
RECORDER:	Sherrie Nunn			**PREVIOUS MEETING:**	N/A – First Meeting for the Program

MEMBERS PRESENT

List all members of the committee, then place an X in the box left of name if present

	NAME	TITLE	EMPLOYER INFO	PHONE	EMAIL
x	Jane Thomas	Administrator	Ussery Roan	806-322-8387	administrator@amarillovethome.com
x	Joanna Kluck	Administrator	King's Manor	806-364-0661	jkluck@kmmrs.com
x	Marge Dean		Texas Tech Internal Medicine	806-679-3846	margaret.dean@ttuhsc.edu
x	Deborah Sugden	Director of Nursing	Baptist Community Services	806-337-4567	dsugnden@bcsama.org
x	Jackie Hendrick	Director of Nursing	Ussery Roan	806-322-8387	don@amarillovethome.com
x	Angeline Reinart	Director of Nursing	Arbors	806-654-2385	areinart@bcsama.org
x	Tammie Tabor	CNO	Vibra Rehab Hospital	806-468-2981	ttabor@vhamarillo.com
x	Rena' Kuehler	Instructor	AACAL	806-673-2719	sheila.kuehler@amaisd.org
x	Kendra Hubbard	Instructor	Amarillo College		kdhubbard@actx.edu
x	Michele Rupe	Instructor	Amarillo College	806-467-3028	mmrupe22@actx.edu
x	Mark Rowh	Dean of Health Sciences	Amarillo College	806-354-6070	merowh@actx.edu
x	Kim Boyd	Instructor	Amarillo College	806-354-6060	kmboyd@actx.edu
x	Dana Woods		Amarillo College	806-231-0595	Dana_woods@cshhc.com
x	Saundra Thornton		Amarillo College		saundrathornton@actx.edu
x	Vanesta Jagrup		Amarillo College		vjagrup@actx.edu
x	Daniel Esquivel	Director Hereford Campus	Amarillo College	806-379-2750	dmesquivel@actx.edu
x	Danielle Arias		Amarillo College	806-379-2751	dnarias@actx.edu
x	Janice Johnston		Amarillo College	806-467-3110	jmjohnston@actx.edu
x	Will Ratliff	Advisor AC CCHcE	Amarillo College	806-354-6085	

AGENDA ITEM	ACTION DISCUSSION INFORMATION	RESPONSIBILITY
Welcome & Introductions	Sugden, Chairperson, called the meeting to order and introductions followed.	Deborah Sugden
Appointment of Chairperson	Deborah Sugden accepted the request of appointing her as chairperson	
Approval of Minutes	No prior minutes – discussion of minutes and who will be taking minutes	All committee members
Advisory Committee Handbook	Review of the Advisory Committee Handbook – why we need a committee, how often we meet – normally twice a year. 4:00 pm is decided as the best time of day.	Deborah Sugden

Advisory Committee Meeting Minutes

Advisor of Continuing Healthcare	Will discussed advising on all classes and he has panel cards for each field. He wanted to know about how employers recruit and having those relationships with employers to know what they want in an employee. Student retention in our programs will help students to become completers.	Will Ratliff
Continuing Healthcare Education	CCHcE has taken PCT program to curriculum committee for approval into an academic program. It has been approved and will go into effect in Fall of 2016	Kim Crowley
Old Business	Amarillo College has a DOL Grant since 2012 – the purpose is to accelerate career path options through simulation and technology along with tutoring and advising students in hopes to make them completers. New programs that they are helping with EKG PCT CMA; External evaluators help to evaluate the students after the programs by getting feedback from them. The DOL grant is over in Sept of 2016.	Janice Johnston
Affiliation Reports	Discussion of what community employers need/want in a CNA - BCS stated that they need to see more computer skills and ability to research on computers. They also wondered about personality tests and the job interview process, professionalism and cell phone policies. Other things that employers need are NHAD & Med Aide training from AC.	Deborah Sugden
Dean of Health Sciences	Mark Rowh provided a handout with the Amarillo College Mission & Values – explained that AC doesn't not want to place barriers in the way of the students. He mentioned that tutoring helps in the completion process.	Mark Rowh
Adjournment	Being no further business the meeting adjourned at 6:45 PM	
Date: 11/19/2015	**Executive Secretary Signature: Sherrie Nunn**	**Next Meeting: Fall 2016**

Amarillo College Curriculum Committee Form

Program Changes – Revise RNSG.AS Curriculum

Program Division: STEM
Department: Biology Department (Proposed to Move to Nursing Department)
Program Point of Contact: Currently: Claudie Biggers (371-5080); Move to: Lyndy Shadbolt (371-5212)
Date of Submission: 3-21-16

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	510707
Associated Study Area Identify primary program associated with course	Currently – Biology; Part of Proposal – Move to Nursing (See Justification)
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Pre-Nursing A.S.
Degree Audit Name (e.g. AERM.AAS)	RNSG.AS

Reason/Justification for Request:

1. Please remove HPRS 2301 from the Pre-Nursing A.S. degree. The course is a non-transferable course for terminal degrees meant to meet the needs of Mortuary Science students. The Pre-Nursing A.S. degree is a transferable degree and the course will not be counted for credit.

2. The nursing advisors have requested the deletion of PSCY 2308 from the degree plan to improve advising for students that plan to transfer. According to Susan McClure: PSYC 2308 Child Psychology ~ The primary transfer of RN to BSN schools such as Texas Tech, University of Texas at Arlington required PSYC 2314 Lifespan Psychology. WTAMU will accept either course of Psyc 2308 or Psyc 2314.
   I have posted links below for degree requirements for Texas Tech and West Texas A&M university for your review.

3. To maintain consistency with other Pre Allied Health programs, please consider changing the Program Advisor from Dr. Claudie Biggers , 371-5080 (cjbiggers@actx.edu) or contact Ruth De Anda, 371-5212 (rdeanda@actx.edu) to Dr. Richard Pullen, 354-6024 (rlpullen@actx.edu) or contact Ruth De Anda, 371-5212 (rdeanda@actx.edu) Other instances: Pre Occupational Therapy A.S. Program Advisor Sheree Talkington, Pre-Physical Therapy A.S. Program Advisor Dr. Sue Grady. This will allow the pre nursing majors to start making the transition to their Allied Health program and allow them to develop relationships with nursing staff earlier.

Potential Impact on Current Students Enrolled in Certificate or Degree Programs:
This change will aid in better course transfer for RNSG.AS students.
Evidence:
WEST TEXAS http://www.wtamu.edu/webres/File/Student%20Support/Advising/2013-2014%20Degree%20Checklists/NHS/Nursing/nurs_rn_bsn_1314_f.pdf
TEXAS TECH https://www.depts.ttu.edu/pphc/areas/Nursing.php

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	No
Does this change involve a move from clock to credit hours?	No

Current Degree Plan

Program Advisor: Dr. Claudie Biggers, 371-5080 (cjbiggers@actx.edu) or contact Ruth De Anda, 371-5212 (rdeanda@actx.edu)
Associate in Science
Major Code - RNSG.AS
actx.edu/biology
Program Requirements
General Education Requirements (42 Semester Hours)

Communication - 6 Hours

- ENGL 1301 - Composition I
- ENGL 1302 - Composition II
- or
- ENGL 2311 - Technical and Business Writing

Mathematics - 3 Hours

- MATH 1314 - College Algebra

Life & Physical Sciences/Institutional - 12 Hours

- Speech
- EDUC 1100 - First Year Seminar - Learning Framework
- BIOL 2401 - Anatomy and Physiology I
- BIOL 2402 - Anatomy and Physiology II

Language, Philosophy & Culture - 3 Hours

- Language, Philosophy & Culture

Creative Arts - 3 Hours

- Creative Arts

Government - 6 Hours

- GOVT 2305 - United States Government
- GOVT 2306 - Texas Government

History - 6 Hours

- HIST 1301 - United States History I
- HIST 1302 - United States History II

Social/Behavioral Sciences - 3 Hours

- PSYC 2301 - General Psychology

Major Course Requirements (18 Semester Hours)

Complete 18 hours from the following:

- BIOL 2420 - Microbiology for Non-Science Majors
- CHEM 1305 - Introductory Chemistry I
- CHEM 1105 - Introductory Chemistry I Laboratory
- HECO 1322 - Nutrition & Diet Therapy
- HPRS 2301 - Pathophysiology
- MATH 1342 - Statistics
- PSYC 2308 - Child Psychology
- PSYC 2314 - Lifespan Growth & Development
- SOCI 1301 - Introduction to Sociology

Total (60 Semester Hours)

Proposed Degree Plan

Program Advisor: Lyndi C. Shadbolt (lcshadbolt@actx.edu) or contact Ruth De Anda, 371-5212 (rdeanda@actx.edu)
Associate in Science
Major Code - RNSG.AS
actx.edu/biology
Program Requirements
General Education Requirements (42 Semester Hours)

Communication - 6 Hours

- ENGL 1301 - Composition I
- ENGL 1302 - Composition II
- or
- ENGL 2311 - Technical and Business Writing

Mathematics - 3 Hours

- MATH 1314 - College Algebra

Life & Physical Sciences/Institutional - 12 Hours

- Speech
- EDUC 1100 - First Year Seminar - Learning Framework
- BIOL 2401 - Anatomy and Physiology I
- BIOL 2402 - Anatomy and Physiology II

Language, Philosophy & Culture - 3 Hours

- Language, Philosophy & Culture

Creative Arts - 3 Hours

- Creative Arts

Government - 6 Hours

- GOVT 2305 - United States Government
- GOVT 2306 - Texas Government

History - 6 Hours

- HIST 1301 - United States History I
- HIST 1302 - United States History II

Social/Behavioral Sciences - 3 Hours

- PSYC 2301 - General Psychology

Major Course Requirements (18 Semester Hours)

Complete 18 hours from the following:
Students will be advised based on the university to which they plan to transfer.

- BIOL 2420 - Microbiology for Non-Science Majors
- CHEM 1305 - Introductory Chemistry I
- CHEM 1105 - Introductory Chemistry I Laboratory
- HECO 1322 - Nutrition & Diet Therapy
- ~~HPRS 2301 - Pathophysiology~~
- MATH 1342 - Statistics
- ~~PSYC 2308 - Child Psychology~~
- PSYC 2314 - Lifespan Growth & Development
- SOCI 1301 - Introduction to Sociology

Total (60 Semester Hours)

Amarillo College Curriculum Committee Form

Deactivate PHED.AS Major Code

Program Division: Continuing Education
Department: Sports & Exercise Science PHED.AS
Program Point of Contact: Craig Clifton, 806-371-5299
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 10-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	36.0114
Associated Study Area Identify primary program associated with course	Physical Education/Sports & Exercise Science
Planned Effective Date:	Term: Fall Year: 2016
Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Sports & Exercise Science AS formerly Physical Education
Degree Audit Name (e.g. AERM.AAS)	PHED.AS

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Will other major codes still be active in this program area?	X No
Do you wish to deactivate or close this program?	• **Deactivate** (i.e. suspend new student enrollment) ➢ Note: You cannot reactivate a deactivated award after 3 years have passed

Please provide a plan for how you will accommodate currently enrolled students and include information related to your planned deactivation/closure of the program.	
Requested Information	**Information Response**
Date of deactivation/closure (Date when new students will no longer be admitted)	**Fall 2016**
Teach-Out Plan	o An explanation of how affected parties (students, faculty, staff) will be informed of the impending deactivation/closure **Two faculty have already been terminated as of August 31, 2016. They will not be returning in the fall. Students will be notified by email and/or phone. We will teach out the degree.** _____ o An explanation of how all affected students will be able to complete their programs of study with minimal disruption **Students will be notified by email and/or phone. We will teach out the degree. Most students who choose the Personal and Group Trainer track often do not complete the degree, just the 3 courses necessary for certification. I have a detailed list as an attachment of my suggestion for teach out as it pertains to each student currently active in the PHED.AS degree for Spring 2016.**

	Of the 76 active PHED.AS Spring 2016 majors, 4 graduated May 13, 2016 and one is transferring to WT. **2 will graduate Fall 2016.** **12 of the students have one of the 3 Personal and Group Trainer courses to take in fall 2016, which include PHED 1271, PHED 1123, and/or PHED 1125.** **40 of the students should be moved to either to one of the Education majors or General Studies. They have either indicated the education track by the classes they have taken or have not yet started classes in the major.** **2 of the students are not active but were on the list. They took NSO but never enrolled.** **4 have all of their Personal and Group Trainer courses done, as well as their (3) I hour activity classes.** **12 have completed their Personal and Group Trainer courses but have yet to complete 1, 2 or 3 of the activity courses. Moving forward, it is my recommendation to sub the activity course with another ACGM course. Please make sure it is an ACGM course as the PHED.AS is a transfer degree.** ***Good options to substitute for the activity courses based on transferability include:** **Biology 2402 - Anatomy and Physiology II** **Chemistry 1311 & 1111 – Principles of Chemistry I and Lab I** **Chemistry 1312 & 1112 – Principles of Chemistry II and Lab II** **General Psychology 2301** **Introduction to Sociology 1301** **Economics 2301 - Principles of Macroeconomics I** **Economics 2302 - Principles of Macroeconomics II** **History 2311 – Western Civilization I** **English 2311 – Business and Technical Writing** ****Other options for the students in the future if they would like to teach PE or coach, there is now a selection in the core area of the education degrees to choose PHED 1301 – Foundations of Kinesiology.** *****For students interested in the Personal and Group Trainer Certificate, please have them check back soon for the certificate in a continuing education format.** o An indication as to whether the teach-out plan will incur additional charges/expenses to the students and, if so, how the students will be notified **There will be no additional charges to the students.**
Signed Copies of Teach-out Agreements with other institutions (if any)	**N/A**
Explain how faculty/staff will be redeployed or helped to find new employment	**Two of the three current faculty have been notified per policy. One faculty member remains and can handle the teach-out with streamlined processes.**

PHED.AS Active Students Enrollment

0460256	Lopez	Eugenio	806-367-0183	0460256@amarillocollege.cc	E.LOPEZJ@LIVE.COM	2016SP	Graduated
0400805	Bennett	Yvonne	806-290-2253	0400805@amarillocollege.cc	ibyvonneb@yahoo.com	2016SP	Graduated
0435829	Kinzer	Johnb	806-681-1161	435829@amarillocollege.co	johnb_10kinzer@hotmail.com	2016SP	Graduated
0356910	Salazar	Gerardo	806-206-9088	alazar22@amarillocollege.c	gerardosalazar88.gs@gmail.com	2016SP	Graduates Fall 2016
0526731	Taylor	Robert	806-444-7796	526731@amarillocollege.co	tristantaylor81@yahoo.com	2016SP	Graduates Fall 2016
0198365	Nipper	Emily	806-420-9575	nipper21@amarillocollege.c	enipper21@amarillocollege.com	2016SP	Graduating/Transferring
0515469	Wilke	Cleo	806-576-9378	0515469@amarillocollege.cc	wilkecleo@yahoo.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0448479	Hoang	Tommy	806-316-2307	448479@amarillocollege.co	tommyhoang5381@gmail.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0518292	Rogel	Ali	806-437-7583	0518292@amarillocollege.cc	alirogel18@gmail.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0534625	Hudson	Cody	806-663-2100	0534625@amarillocollege.cc	cjhudson2@gmail.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0538999	Bagwell	Rylee	806-881-7947	538999@amarillocollege.co	Rylee_Bagwell@yahoo.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0541231	Mitchell	Monique	806-444-5493	0541231@amarillocollege.cc	moniquemitchell03@gmail.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0541786	Housley	Kade	806-340-8488	0541786@amarillocollege.cc	kadehousley@yahoo.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0045852	Regan	Zachary	806-681-1859	zjregan21@amarillocollege.	z.regan@yahoo.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
150632	Smith	Amy	806-231-1328	150632@amarillocollege.co	a150632@amarillocollege.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0160896	Harz	Kelly	806-282-4230	0160896@amarillocollege.cc	harzmk@yahoo.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0257007	Guzman	Teresa	806-444-5376	257007@amarillocollege.co	guzmanteresa73@yahoo.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0431561	Skinner	Heath	806-664-3355	skinner@amarillocollege.co	heeezyr@hotmail.com	2016SP	Has PT 1125 left in fall 2016 - sub 1101's
0264588	Sanchez	Marivel	806-344-6307	0264588@amarillocollege.cc	sanchezmarivel@hotmail.com	2016SP	Move to EDUC or GENS
0279842	Chavez	Darla	806-420-5040	gchavez@amarillocollege.co	dgchavez82@att.net	2016SP	Move to EDUC or GENS
0300261	McClenton	Jaimie	806-731-3934	300261@amarillocollege.co	priego15@icloud.com	2016SP	Move to EDUC or GENS
0362296	Gauna	Michael	806-223-7683	0362296@amarillocollege.cc	m.gauna.mg@gmail.com	2016SP	Move to EDUC or GENS
0373760	Ibarra	Mercedes	806-626-2151	0373760@amarillocollege.cc	mercedes.ibarra69@gmail.com	2016SP	Move to EDUC or GENS
0416339	Campbell	Jason	806-316-5180	mpbell22@amarillocollege.c	jjjcam2140@yahoo.com	2016SP	Move to EDUC or GENS
0430976	Haines	Collin	806-437-0201	haines22@amarillocollege.c	collin_haines_5@hotmail.com	2016SP	Move to EDUC or GENS
0436702	Martinez	Carlos	806-977-0324	artinez25@amarillocollege.	carlos_2006@hotmail.com	2016SP	Move to EDUC or GENS
0462720	Medellin	Manuel	806-678-5617	0462720@amarillocollege.cc	mannymedellin@gmail.com	2016SP	Move to EDUC or GENS
0463874	Wafer	J'mal	806-717-8023	463874@amarillocollege.co	waferjmal@gmail.com	2016SP	Move to EDUC or GENS
0486302	Garza	Alexis	806-206-4327	0486302@amarillocollege.cc	a_marie_g1996@hotmail.com	2016SP	Move to EDUC or GENS
0506637	Galvan	Javier	806-570-8078	506637@amarillocollege.co	village1671@yahoo.com	2016SP	Move to EDUC or GENS

0508303	Quinn	Seth	214-726-2318	)508303@amarillocollege.cc	kbquinn@sbcglobal.net	2016SP	Move to EDUC or GENS
0521201	Johnston	Trevor	806-679-1121	521201@amarillocollege.co	trevorjohnston33@gmail.com	2016SP	Move to EDUC or GENS
0524542	Garcia	Hailey	806-681-4309	)524542@amarillocollege.cc	haileyg76@gmail.com	2016SP	Move to EDUC or GENS
0525138	Megenow	Hussein	806-324-9041	)525138@amarillocollege.cc	hmegenow@yahoo.com	2016SP	Move to EDUC or GENS
0525162	Galindo	Nathaniel	806-290-8957	)525162@amarillocollege.cc	galindo_nathaniel@yahoo.com	2016SP	Move to EDUC or GENS
0525919	Lara	Nicolas	non available	)525919@amarillocollege.cc	nicolaslara0726@gmail.com	2016SP	Move to EDUC or GENS
0526438	Palacios	Abel	806-265-5264	)526438@amarillocollege.cc	abelpalacios@yahoo.com	2016SP	Move to EDUC or GENS
0526456	Bates	Tre`von	806-584-9582	526456@amarillocollege.co	batestrevon28@yahoo.com	2016SP	Move to EDUC or GENS
0532558	Chase	Hannah	806-223-7460	)532558@amarillocollege.cc	hchase76@gmail.com	2016SP	Move to EDUC or GENS
0533053	Roberts	Michiel	806-681-7126	)533053@amarillocollege.cc	ninjamikey2@gmail.com	2016SP	Move to EDUC or GENS
0533133	Holguin	Zachary	806-240-3458	)533133@amarillocollege.cc	conniesaenz@herefordisd.net	2016SP	Move to EDUC or GENS
0535166	Simmons	Kelly	806-570-1463	)535166@amarillocollege.cc	simmonsqb6@gmail.com	2016SP	Move to EDUC or GENS
0535354	Escoto	Dominic	806-206-8845	)535354@amarillocollege.cc	descoto5@yahoo.com	2016SP	Move to EDUC or GENS
0538630	Caballero	Edward	806-231-8472	)538630@amarillocollege.cc	edcaballero13@yahoo.com	2016SP	Move to EDUC or GENS
0538933	Widener	Jonathan	806-717-9596	538933@amarillocollege.co	jwidener81@outlook.com	2016SP	Move to EDUC or GENS
0541459	Chacon	Gabriel	806-683-0315	)541459@amarillocollege.cc	gabechacon35@yahoo.com	2016SP	Move to EDUC or GENS
0541621	Flores	Luis	806-881-7969	541621@amarillocollege.co	vltflor5@aol.com	2016SP	Move to EDUC or GENS
0541985	Mcmurray	Skiler	806-206-0777	)541985@amarillocollege.cc	whoopiecampfield@yahoo.com	2016SP	Move to EDUC or GENS
0542095	Pedraza	Samuel	806-341-1176	)542095@amarillocollege.cc	gilbertpedraza@gmail.com	2016SP	Move to EDUC or GENS
0542133	Prado	Joseph	806-626-9751	542133@amarillocollege.co	joe.prado11@gmail.com	2016SP	Move to EDUC or GENS
0552781	Sigala	Coraima	620-391-7038	)552781@amarillocollege.cc	coraima.sigala14@hotmail.com	2016SP	Move to EDUC or GENS
0555168	Vizcarra	Jonathan	806-437-8020	555168@amarillocollege.co	jonathanvizcarra.15@gmail.com	2016SP	Move to EDUC or GENS
0559683	Ruiz	Jose	806-930-9876	559683@amarillocollege.co	javier_ruiz196@yahoo.com	2016SP	Move to EDUC or GENS
0562364	Votaw	Rowdy	806-471-7946	562364@amarillocollege.co	rjvotaw21@gmail.com	2016SP	Move to EDUC or GENS
0564731	Chapman	Anthony	806-433-2461	)564731@amarillocollege.cc	asvpchap@gmail.com	2016SP	Move to EDUC or GENS
0571146	Mason	Tremayne	254-702-0082	571146@amarillocollege.co	trelalakers@yahoo.com	2016SP	Move to EDUC or GENS
0164688	Bernson	Heather	806-336-6695	)164688@amarillocollege.cc	heather.bernson@yahoo.com	2016SP	Move to EDUC or GENS
0544992	Delacruz	Bernabe	806-206-3439	)544992@amarillocollege.cc	bernabedelacruz22@gmail.com	2016SP	Move to EDUC or GENS
0445249	Wilkerson	Trevell	806-557-8048	ilkerson@amarillocollege.cc	wilkerson777@gmail.com	2016SP	Not active - NSO only
0449906	Guerrero	Edgar	806-268-2301	)449906@amarillocollege.cc	edgar1student@gmail.com	2016SP	Not active since fall 2014
0471244	Powell	Chandra	505-307-2129	)471244@amarillocollege.cc	chandradpowell88@gmail.com	2016SP	PT done - 1101's done
0292617	Jesse	Nathan	806-654-7887	)292617@amarillocollege.cc	nathansjesse@gmail.com	2016SP	PT done - 1101's done
0298773	Graser	Kody	806-683-5602	)298773@amarillocollege.cc	graser_kody@yahoo.com	2016SP	PT done - 1101's done

0308735	Reyes	Daniel	940-473-9271	0308735@amarillocollege.cc	d_reyesx@yahoo.com	2016SP	PT done - 1101's done
0035855	Jackson	Bailey	806-316-6008	0035855@amarillocollege.cc	jacksonbailey6@gmail.com	2016SP	PT done - sub 1101 courses
0270773	Villarreal	Andrew	806-363-0734	0270773@amarillocollege.cc	illarreal.andrew.3030@gmail.cor	2016SP	PT done - sub 1101 courses
0278007	Higby	Rebecca	806-316-0788	278007@amarillocollege.co	rahsister@hotmail.com	2016SP	PT done - sub 1101 courses
0295094	Posey	Trainance	806-290-4461	sposey@amarillocollege.cor	trainance.posey@yahoo.com	2016SP	PT done - sub 1101 courses
0364862	Mcnatt	Adriene	806-206-6584	0364862@amarillocollege.cc	adrienemcnatt@yahoo.com	2016SP	PT done - sub 1101 courses
0409562	Taylor	Keziah	806-664-0444	0409562@amarillocollege.cc	keziahopal1517@gmail.com	2016SP	PT done - sub 1101 courses
0409670	Kett	Katelynn	806-282-2911	0409670@amarillocollege.cc	jeanicecmc@gmail.com	2016SP	PT done - sub 1101 courses
0433724	Walker	Beverly	806--364-7566	dwalker@amarillocollege.co	pwalker5@sbcglobal.net	2016SP	PT done - sub 1101 courses
0517293	Stone	Randa	806-336-6899	517293@amarillocollege.co	andacamille_2013@hotmail.con	2016SP	PT done - sub 1101 courses
0517635	Muncy	Robert	806-640-2739	517635@amarillocollege.co	rbmuncy@suddenlink.net	2016SP	PT done - sub 1101 courses
0541896	Lewis	Thomas	806-400-9050	541896@amarillocollege.co	attorneyrobinlewis@yahoo.com	2016SP	PT done - sub 1101 courses
0457508	Villarreal	Cassandra	806-420-3345	0457508@amarillocollege.cc	assandravillarreal3@yahoo.con	2016SP	PT done - sub 1101 courses
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Amarillo College Curriculum Committee Form

Close LART.AA and LART.AS Major Codes

Program Division: Liberal Arts
Department: Liberal Arts
Program Point of Contact: Margie Vitale
Date of Submission: 5-9-16

Requested Information	Information Response
Associated 10-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	
Associated Study Area	Liberal Arts AA, Liberal Arts AS
Planned Effective Date:	Term: _____Fall_____ Year: _____2016_____
Program Title (Written Out): (e.g. Aviation Maintenance Technology)	
Degree Audit Name (e.g. AERM.AAS)	Liberal Arts A.A (LART.AA) Liberal Arts A.S. (LART.AS)
Reason/Justification for Request: The Gen. Ed. Arts & Humanities Pathways is the same degree option.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Will other major codes still be active in this program area?	o Yes o No
Do you wish to deactivate or close this program?	• Close (i.e. discontinue and remove from program inventory) ➢ Note: Only if "0" students are enrolled

Please provide a plan for how you will accommodate currently enrolled students and include information related to your planned deactivation/closure of the program.	
Requested Information	**Information Response**
Date of deactivation/closure (Date when new students will no longer be admitted)	Fall 2017
Teach-Out Plan	Students can move to the Gen Ed. Arts & Humanities pathway to finish their degree.
Signed Copies of Teach-out Agreements with other institutions (if any)	NA
Explain how faculty/staff will be redeployed or helped to find new employment	NA

Amarillo College Curriculum Committee Form

Course Changes – Revision for Education Degree Areas*

Program Division: Liberal Arts, Dr. Dan Ferguson
Department: Education
Program Point of Contact: Mary Clare Munger
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	13.1318
Associated Study Area Identify primary program associated with course	Education – 4-8 (AAT) Education – Elementary Generalist (AAT) Education – Elementary Specialist (AAT) Education – Secondary (AAT)
Course Title (Written Out)	ADD Introduction to Kinesiology
Course Prefix and Number	PHED 1301
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Core curriculum foundational area Currently approved in core as Social and Behavioral Science

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
In the past, Education has offered 4 options for students to take in the Social & Behavioral Sciences Core: ANTH 2351 – Cultural Anthropology ECON 2301 – principles of Macroeconomics PSYC 2301 – General Psychology SOCI 1301 – Introduction to Sociology It is my desire to add: ***PHED 1301 – Introduction to Kinesiology Reason – By adding this course to the core option, students who are interest in coaching and teaching in the school system will have another option to assist them with knowledge in the education degree.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Deactivate or Close a Major Code

Program Division: School of Creative Arts
Department: Visual Arts and Design - Drafting
Program Point of Contact: Victoria Taylor-Gore, Chair and Dean (371-5982)
Date of Submission: May 12, 2016

Requested Information	Information Response
Associated 10-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	15.1302 WECM
Associated Study Area Identify primary program associated with course	Drafting
Planned Effective Date:	Term: ____Fall_____ Year: _____2016_____
Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Drafting - Architectural Drafting Technician Certificate and Drafting - CAD Specialist Certificate
Degree Audit Name (e.g. AERM.AAS)	DFTG.CERT.ADT and DFTG.CERT.CAD

Reason/Justification for Request:

We propose to deactivate the Drafting - Architectural Drafting Technician Certificate **DFTG.CERT.ADT and the** Drafting - CAD Specialist Certificate **DFTG.CERT.CAD**

We revised the Drafting Technician Certificate (DFTG.CERT.DT) and the Drafting AAS to focus AC resources on local industry needs in drafting. We only want one streamlined Drafting Technician Certificate that directly stacks into the Drafting AAS. The Drafting - Architectural Drafting Technician Certificate (DFTG.CERT.AD) and Drafting - CAD Specialist Certificate (DFTG.CERT.CAD) do not apply directly to the revised Drafting AAS and keeping these two certificates will split enrollment.

Having only one streamlined Drafting Technician Certificate will allow students to complete sooner while still getting the basic drafting skills they need to get an entry level drafting position in local industry. The Drafting Advisory Committee agreed on having one streamlined Drafting Technician Certificate DFTG.CERT.DT.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Will other major codes still be active in this program area?	o Yes – the Drafting Technician Certificate DFTG.DERT.DT and the Drafting AAS is still active in this program area.
Do you wish to deactivate or close this program?	• Deactivate (i.e. suspend new student enrollment)

Please provide a plan for how you will accommodate currently enrolled students and include information related to your planned deactivation/closure of the program.	
Requested Information	**Information Response**
Date of deactivation/closure (Date when new students will no longer be admitted)	Fall 2016
Teach-Out Plan	○ An explanation of how affected parties (students, faculty, staff) will be informed of the impending deactivation/closure Students will be informed through our division advisor Ruth De Anda. Faculty and staff in Drafting are already aware of our proposed changes. ○ An explanation of how all affected students will be able to complete their programs of study with minimal disruption All Drafting courses in these certificates will still be offered, and we will do course substitutions for all INDS courses. Students will be able to finish these certificates with no problems. ○ An indication as to whether the teach-out plan will incur additional charges/expenses to the students and, if so, how the students will be notified No additional charges or expenses will be incurred. Students will be informed by our division advisor Ruth De Anda.
Signed Copies of Teach-out Agreements with other institutions (if any)	PLEASE ATTACH N/A
Explain how faculty/staff will be redeployed or helped to find new employment	The full time faculty in these areas have already retired or have found new employment. Part time faculty will continue to teach Drafting courses.

DRAFTING ADVISORY COMMITTEE MINUTES

PROGRAM COMMITTEE NAME:	DRAFTING		
CHAIRPERSON: Ken George	MEETING PLACE: WSC-WARE-204 Team Space	MEETING DATE: 3/29/2016	MEETING TIME: 6:30PM
RECORDER: Donna Salter	PREVIOUS MEETING: Wednesday, October 28, 2015, 6:30 pm, WSC-WARE-204 Team Space		

COMMITTEE MEMBERS

ATTENDED	NAME	TITLE	EMPLOYER INFO	PHONE	EMAIL
X	Mike Bahn	Owner	ABC Blueprint	806-376-5671	bahnmike@gmail.com
	Mary Ellen Brandt	Engineer	Brandt Engineering	806-353-7233	brandt@brandtengineers.com
X	Ken George	Designer	Xcel Energy	806-378-2139	kenneth.g.george@xcelenergy.com
	Don Roden	Dept. Supervisor	Zachry	806-359-2450	RodenD@zachrygroup.com
	Jack Walser	Designer	Drawing Board		jackw@tdbamarillo.com

	Jerry Goebel	Sr. Designer	Officewise	806-372-2236	jgoebel@officewiseco.com
	Mason Rogers, AIA		Playa Design Studio	806-206-6513	mason@playadesignstudio.com
	Sara DeGrood, AIA		Lavin & Assoc.	806-358-7069	sdegrood@lavinarchitects.com
	Gregg Bliss, AIA	Architect	Gregg Bliss, Architect	806-372-2966	greggbliss@msn.com
X	Chris Gleason		Public Steel, Inc.		chris@publicsteel.com
X	Jacob Moreno	Project Design Manager	Altura Engineering & Design	888-947-6066 – Office	Jacob.moreno@alturaengineering.com
	Zac Plummer		City of Amarillo Traffic Engineering		zac@pharisstructural.com
	J. D. Davis		Davis Geomatics		jdavis@geopro.us
	Tim Devenney	Senior Cadd Support Specialist	Zachry		devenneyt@zachrygroup.com
X	Ryan. Brewer	AC Drafting graduate	3D expert with Greencrete Contractors		r.s.brewer@hotmail.com

EX-OFFICIO MEMBERS PRESENT					
x	Julie Sutton	Drafting Faculty	AC	806-345-5647	j0075170@actx.edu
x	Dan McCall	Drafting Faculty	AC	806-345-5644	dwmccall@actx.edu
	Ruth De Anda	Advising Associate	AC	806-3711-5212	r0343730@actx.edu
	Dr. Deborah Vess	VP of Academic Affairs	AC	806-371-5226	d0551113@actx.edu
x	Victoria Taylor-Gore	Chair, Visual Arts and Design / Dean, School of Creative Arts	AC	806-371-5982 or 806-676-3659	vtaylorgore@actx.edu
	Becky Burton	Assistant Professor-Radiography and Curriculum Specialist	AC	806-371-5122	bkburton@actx.edu
	Susie Wheeler	Grants Coordinator - Planning and Assessment	AC	806-371-5352	lswheeler@actx.edu

1. Welcome – Victoria Taylor-Gore welcomed the committee.
2. Appointment of the advisory Committee chairperson - Ken George was appointed as chairperson of the committee.
3. Introductions
    - Ryan Brewer is a 3D expert and Greancrete and was invited to the meeting by Dan McCall. Ryan is a former student, and Dan McCall said that Ryan would be a great part time faculty for our program.

- Ken George – told us that he is a former AC student and had taught 8-9 classes for AC in the past. He supervises the drafting and design for the power plant at Xcel. Four divisions at Excel has employed over 25 drafting graduates from AC. This program is very important to Xcel, and losing it would have a major impact on Xcel.
- Chris Gleason was glad to be invited. His company Public Steel has also hired many AC graduates. Chris said he is a former AC drafting student and would like to see the program continue.
- Mike Bahn and Jacob Moreno arrived late and only briefly introduced themselves.
- Ex-officio members introduced themselves. Victoria Taylor-Gore noted that Don Roden (Zachry Engineering) was not able to attend because of activities he had to attend with out of town business guests.

4. Review and approval of the minutes from the previous meeting

- The members that had attended the previous meeting reviewed the notes. Dan McCall motioned that the committee approve the minutes, Mike Bahn seconded the motion, and all members approved.

5. Curriculum and Ex-Officio Member Reports –

- Changes to the Drafting AAS and certificates

  VTG (Victoria Taylor-Gore) informed the committee that fall schedule will be open to new drafting students, and AC is taking new drafting majors. AC is also offering introductory drafting courses. The committee was very pleased about this. VTG said that moving forward with the AAS program requires one full time faculty (SACS requirement), but future funding for a full time faculty will depend on increasing enrollment. Drafting enrollment has dropped from around 60 majors last semester to around 40 this semester. We plan to get the word out to the high schools and related businesses that the drafting AAS and the certificate will be continuing.

  VTG said that we propose to streamline the Drafting Technician Certificate and include drafting courses that are taught by area high schools to open up opportunities for dual credit and articulation agreements. We will take out the Interior Architecture track from the Drafting AAS, remove INDS 1311 – Fundamentals of Interior Design from the major course requirements in the Drafting AAS, and add another course in place of INDS 1311 – Fundamentals of Interior Design in the major course requirements of the Drafting AAS.

  Julie Sutton discussed ARTS 1311 – Design I in place of INDS 1311 – Fundamentals of Interior Design because both courses teach principles of design. Julie also said that design principles could be included in other drafting courses. She also asked the committee if DFTG 2328 – Architectural Drafting Commercial should be kept in the AAS since it covered lots of very general topics that were also covered in other courses. Jacob Moreno said that he thought that the redundancy in DFTG 2323 was useful to students. Julie also informed the committee that students questioned if DFTG 2323 - Advanced Computer Aided Drafting would be used in the field. Dan McCall explained that students need to learn about operating systems, macros, keyboard shortcuts, how to configure, troubleshoot, and install CAD software - especially if they are hired by a company that does not have an IT department. Ryan Brewer agreed with Dan and said that he uses these skills in his job. Ken also agreed that smaller firms need the skills in DFTG 2323. Ken George will be teaching DFTG 2323 next semester and is also trying to recruit other part time teachers for our program. The committee agreed to keep DFTG 2323 in the curriculum.

VTG brought up DFGT 2321 - Topographical Drafting to replace INDS 1311 – Fundamentals of Interior Design since at last fall's advisory committee meeting the members were interested in surveying. She explained that other surveying courses at AC had too many prerequisites. The members agreed that DFTG 2321 – Topographical Drafting would be useful, and Ryan discussed the value of topographical drafting to students and that he could give demonstrations for that class. Ken could teach Topographical Drafting since he has taught it twice before. Jacob Moreno could give a demonstration of Point Cloud 3D scanning software to the Topographical Drafting class. Jacob Moreno motioned to add DFGT 2321 - Topographical Drafting to replace INDS 1311 – Fundamentals of Interior Design in the Drafting AAS and Mike Bahn seconded the motion – the committee was all in favor of the motion. The proposed revised Drafting Technician Certificate was discussed. VTG explained that this revised certificate was stackable into the Drafting AAS and helped the program get more completers. The courses in the revised Drafting Technician Certificate (DFTG 1305, 1309, 1317, 1333, 1370, 1372, 2319, and 2340) include several drafting courses that are taught in area high schools, and this would help with articulation and dual credit with the high schools. Ken said that high school teachers were teaching students drafting for engineering. Jacob Moreno said that the proposed new certificate included courses suitable for entry level positions. The committee agreed that they would hire students with the certificate for entry level positions even though the Drafting AAS was preferred. Mike Bahn asked if the drafting degrees transferred, and VTG explained that they were WECM technical courses and would not transfer unless there was an articulation agreement with another institution. The technical programs prepared students for jobs. There was a discussion about moving drafting courses to 8 week courses, and the committee all agreed that 16 week courses were more beneficial to drafting majors and 8 week courses were not viable for drafting majors. VTG explained that INDS courses would not be taught anymore, and other existing courses would be substituted for remaining INDS courses.

- Faculty changes

  VTG went over the retirements of Dan McCall and Tony Thomas were discussed. Ann Fry took a new job at WTAMU and three adjuncts took over her classes mid semester. Julie Sutton had become temporary full time to handle Ann's teaching load.

- Articulation agreements/recruiting efforts

  VTG explained that we were going to reach out to high schools that currently teach drafting courses and let them know the current status of the program. We also want to develop articulation agreements and dual credit. The committee agreed this was very important. The committee recommended to add AACAL to the high schools we could work with, and AACAL has a 3D printer. VTG said that she planned to get a handout about drafting ready to take to the high schools. Also VTG will invite high school drafting teachers to the next advisory committee meeting.

6. Reports from the Division Advisor (advisor was not present)
7. Old Business – see other notes.
8. New Business

- Vote on revised Drafting AAS (select additional course and any other suggestions) – Jacob Moreno motioned to revise the Drafting AAS as proposed with the addition of DFTG 2321 Topographical Drafting in place of INDS 1311 – Fundamentals of Interior Design, Mike Bahn seconded the motion, and it was unanimously passed.
- Vote on the revised Drafting Technician Certificate – Ken motioned that the new proposed Drafting Technician Certificate be passed, and Mike Bahn seconded the motion. The motion passed unanimously.
- Vote on Software needs

  The committee went over the current drafting software used for drafting courses (AutoCAD, Microstation (Bentley), and Chief Architect), and they endorsed all the current software. These are all programs students need in the industry. Bentley is used exclusively at Zachry, and the City, Xcel, and Pantex uses it. Chief Architect and AutoCAD is the second most popular software used in industry.

- Technical Drafting needs

  Julie discussed the expense for supplies in DGTG 1305 – Technical Drafting and wondered if local companies could donate supplies that student could check out. She said the expense for students for that course was around $100. Mike asked if graduating student could sell back their supplies at half price to other students.

- Computers / printing

  Dan McCall told the committee that with new versions of software coming out, the 24 computers in the drafting lab would need to be updated. VTG explained that the lab was due for new computers with the computer rotation schedule of AC labs, but that she didn't know when the next replacement. VTG agreed to find out when the next rotation of computers for the drafting lab would be scheduled. The committee also discussed minimum computer requirements (including 8 gigs of memory) for running CAD software. Ken George said that the drafting field required computers with powerful graphics, memory, and at least 8 gigs of RAM. The committee and faculty discussed how slower computers kept student stations tied up while files are rendered, and slower computers would become a problem for the program.

  Julie brought up the cost of printing, and status of printers. Julie said that the HP printer didn't print a clean print, and the Epson printer had no support. There are also two wide format printers. KVTG asked if current printer would last for next year, and the answer was yes – but some new printers are probably going to need to be replaced in next year's budget. The committee agreed that students being able to print their project was crucial to the program. Ken George stressed that printing is key to the health of the program, and not being able to print "will affect whether a student stays in the program." The 3D printers that the Drafting program has was also discussed with the committee. The committee agreed that it is good to expose drafting students to 3D printing.

- Fundraising

  The committee wanted to make sure donations would go directly to the Drafting program, and VTG assured them this is possible. Ken George noted that this program has supplied local industry and businesses such as Bell Helicopter with drafters, so we should go knock on their doors. The drafting program is so important to this community and it has a history of providing a service to the community. We need to define issues to get funding – what is a temporary funding need and what is an emergency need to rebuild the program? We should tap these industry resources. VTG told the

committee about Mark White helping the college with fundraising, and Ken George would like to meet with Mark White and Dr. Vess. The committee said that the goal should be under $100,000 for a better response, and define short term and long term funding needs including teaching needs. Donations are a tax benefit to companies. Companies that were discussed to approach were Xcel, Zachry, Bell Hellicopter, and Pantex. VTG agreed to contact Mark White and Dr. Vess.

- Suggestions from committee members

  Jacob Moreno explained Point Cloud (software for 3D laser scanning) scanner technology to create 3D models. The industry is moving away from traditional methods, and the committee agreed that 3D drawing and scanning technology is on the increase, but the software is very expensive. They recommended we keep this in mind for future instruction. Mike Bahn noted that the AC East Campus faculty had purchased 3 Total Stations that could be used in drafting courses, and Mike also wondered if East Campus had faculty that could teach drafting courses. VTG agreed to investigate the Total Stations and faculty at East Campus that may be able to help teach drafting.

9. Adjourn – the meeting adjourned at 8:50pm.

Industrial Technology Changes

1. Add pre-requisites (MCHN 1343 and ETWR 1302) to EPLT 1311
2. Add pre-requisites (MCHN 1343 and ETWR 1302) to INMT 1305
3. Revise IMRT.AAS Curriculum
4. Revise IMRT.CERT.ELMT Curriculum
5. Revise IMRT.CERT Curriculum
6. Industrial Technology – Core Certificate (IMRT.XXX.CERT)

Current	Proposed
Industrial Technology	Industrial Technology
EECT 1380 - Cooperative Education - Electrical, Electronic and Communications Engineering Technology/Technician Prerequisite: Instructor consent Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 sem hrs; 1 lec, 20 hrs work/week)	EECT 1380 - Cooperative Education - Electrical, Electronic and Communications Engineering Technology/Technician Prerequisite: Instructor consent Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 sem hrs; 1 lec, 20 hrs work/week)
EECT 1391 - Special Topics in Electrical, Electronic and Communications Engineering Technology/Technician Prerequisite: Instructor consent Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)	EECT 1391 - Special Topics in Electrical, Electronic and Communications Engineering Technology/Technician Prerequisite: Instructor consent Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)
EECT 2335 - Telecommunications Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. A study of modern telecommunications systems incorporating microwave, satellite, optical and wire/cable-based communications systems. Instruction in installation, testing and maintenance of communications systems components. Hours (3 sem hrs; 2 lec, 2 lab)	EECT 2335 - Telecommunications Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. A study of modern telecommunications systems incorporating microwave, satellite, optical and wire/cable-based communications systems. Instruction in installation, testing and maintenance of communications systems components. Hours (3 sem hrs; 2 lec, 2 lab)
ELMT 1301 - Programmable Logic Controllers Prerequisite: IEIR 1310 - minimum grade of C. An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, application, troubleshooting of ladder logic, and interfacing of equipment. Hours (3 sem hrs; 2 lec; 2 lab)	ELMT 1301 - Programmable Logic Controllers Prerequisite: IEIR 1310 - minimum grade of C. An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, application, troubleshooting of ladder logic, and interfacing of equipment. Hours (3 sem hrs; 2 lec; 2 lab)
ELMT 1302 - Solar Photovoltaic Systems Prerequisite: HART 1311 - minimum grade of C. Design and installation of solar photovoltaic systems and their applications. Hours (3 sem hrs; 2 lec, 2 lab)	ELMT 1302 - Solar Photovoltaic Systems Prerequisite: HART 1311 - minimum grade of C. Design and installation of solar photovoltaic systems and their applications. Hours (3 sem hrs; 2 lec, 2 lab)
ELMT 1305 - Basic Fluid Power Prerequisite - INMT 1305 and ELPT 1311 - minimum grade of C. Basic fluid power course covering pneumatic and hydraulic systems, fluid power symbols, operating theory, components, vacuum and hydraulics; and basic electrical and manual controls. Hours (3 sem hrs; 2 lec; 2 lab)	ELMT 1305 - Basic Fluid Power Prerequisite - INMT 1305 and ELPT 1311 - minimum grade of C. Basic fluid power course covering pneumatic and hydraulic systems, fluid power symbols, operating theory, components, vacuum and hydraulics; and basic electrical and manual controls. Hours (3 sem hrs; 2 lec; 2 lab)
ELMT 1391 - Special Topics in Electromechanical Technology/Technician Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.	ELMT 1391 - Special Topics in Electromechanical Technology/Technician Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

Hours (3 sem hrs; 2 lec; 2 lab)	Hours (3 sem hrs; 2 lec; 2 lab)
ELMT 2333 - Industrial Electronics Prerequisites: ELMT 1301 and IEIR 1306 - minimum grade of C. Devices, circuits and systems primarily used in automated manufacturing and/or process control including computer controls and interfacing between mechanical, electrical, electronic and computer equipment. Includes presentation of programming schemes. Hours (3 sem hrs; 2 lec, 2 lab)	ELMT 2333 - Industrial Electronics Prerequisites: ELMT 1301 and IEIR 1306 - minimum grade of C. Devices, circuits and systems primarily used in automated manufacturing and/or process control including computer controls and interfacing between mechanical, electrical, electronic and computer equipment. Includes presentation of programming schemes. Hours (3 sem hrs; 2 lec, 2 lab)
ELMT 2341 - Electromechanical Systems Prerequisite: ELMT 1301 - minimum grade of C and Instructor Consent. Final Semester Application of electromechanical systems. Emphasizes programmable control devices and solid state systems. Hours (3 sem hrs, 2 lec, 2 lab)	ELMT 2341 - Electromechanical Systems Prerequisite: ELMT 1301 - minimum grade of C and Instructor Consent. Final Semester Application of electromechanical systems. Emphasizes programmable control devices and solid state systems. Hours (3 sem hrs, 2 lec, 2 lab)
ELMT 2380 - Cooperative Education - Electromechanical Technology/Technician Prerequisite: Instructor Consent Career related activities encountered in the student's area of specialization offered through an individualized agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 sem hrs; 1 lec; 20 lab)	ELMT 2380 - Cooperative Education - Electromechanical Technology/Technician Prerequisite: Instructor Consent Career related activities encountered in the student's area of specialization offered through an individualized agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 sem hrs; 1 lec; 20 lab)
ELPT 1311 – Basic Electrical Theory Prerequisite: MCHN 1343 and ~~ETWR 1371~~ - minimum grade of C. Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current. Hours (3 sem hrs; 2 lec, 2 lab)	ELPT 1311 – Basic Electrical Theory Prerequisite: MCHN 1343 and ETWR 1302 Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current. Hours (3 sem hrs; 2 lec, 2 lab)
~~ETWR 1371 – Technical Communication~~ ~~A study of individual habits and skills necessary for employment and advancement in technical industries including preparation of technical documents, skills to ensure job readiness and the effective habits of a successful employee.~~ ~~Hours (3 sem hrs; 2 lec; 2 lab)~~	ETWR 1302 – Introduction to Technical Writing Introduction to the principles, techniques, and skills needed for scientific, technical, and business writing. Hours (3 sem hrs; 2 lec; 2 lab)
HART 1307 - Refrigeration Principles Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, basic thermodynamics, refrigeration handling and containment, and refrigeration components and safety. Hours (3 sem hrs; 2 lec; 2 lab)	HART 1307 - Refrigeration Principles Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, basic thermodynamics, refrigeration handling and containment, and refrigeration components and safety. Hours (3 sem hrs; 2 lec; 2 lab)
HART 1311 - Solar Fundamentals Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Study of heat transference, motors, pumps and other mechanical devices; solid state switches; photovoltaic plates and energy conversion; thermal dynamics; and solar energy. Hours (3 sem hrs; 2 lec, 2 lab)	HART 1311 - Solar Fundamentals Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Study of heat transference, motors, pumps and other mechanical devices; solid state switches; photovoltaic plates and energy conversion; thermal dynamics; and solar energy. Hours (3 sem hrs; 2 lec, 2 lab)
HART 1345 - Gas & Electric Heating Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. A study of the procedures and principles used in servicing heating systems including gas-fired furnaces and electric heating systems. Hours (3 sem hrs; 2 lec; 2 lab)	HART 1345 - Gas & Electric Heating Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. A study of the procedures and principles used in servicing heating systems including gas-fired furnaces and electric heating systems. Hours (3 sem hrs; 2 lec; 2 lab)
HART 1393 - Special Topics in Solar Technology/Technician	HART 1393 - Special Topics in Solar Technology/Technician

Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)	Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)
HART 2336 - Air Conditioning Troubleshooting Prerequisite: ELMT 1301 and HART 2338 - minimum grade of C and Instructor Consent. Final Semester An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. Hours (3 sem hrs; 2 lec; 2 lab)	HART 2336 - Air Conditioning Troubleshooting Prerequisite: ELMT 1301 and HART 2338 - minimum grade of C and Instructor Consent. Final Semester An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. Hours (3 sem hrs; 2 lec; 2 lab)
HART 2338 – Air Conditioning Installation and Startup Prerequisite: HART 1307 - minimum grade of C A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing. Hours (3 sem hrs; 2 lec, 2 lab)	HART 2338 – Air Conditioning Installation and Startup Prerequisite: HART 1307 - minimum grade of C A study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing. Hours (3 sem hrs; 2 lec, 2 lab)
HART 2342 - Commercial Refrigeration Prerequisite: HART 1307 - minimum grade of C. Theory of and practical application in the maintenance of commercial refrigeration; high, medium, and low temperature applications and ice machines. Hours (3 sem hrs; 2 lec; 2 lab)	HART 2342 - Commercial Refrigeration Prerequisite: HART 1307 - minimum grade of C. Theory of and practical application in the maintenance of commercial refrigeration; high, medium, and low temperature applications and ice machines. Hours (3 sem hrs; 2 lec; 2 lab)
IEIR 1306 - Electric Motors Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Fundamentals of single phase and three phase alternating current motors and direct current motors including operating principles, characteristics, application, selection, installation, maintenance, and troubleshooting. Hours (3 sem hrs; 2 lec; 2 lab)	IEIR 1306 - Electric Motors Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Fundamentals of single phase and three phase alternating current motors and direct current motors including operating principles, characteristics, application, selection, installation, maintenance, and troubleshooting. Hours (3 sem hrs; 2 lec; 2 lab)
IEIR 1310 - Motor Controls Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. General principles and fundamentals of electrical controls and control components including magnetic motor starters, troubleshooting techniques, overload protection and various protective devices, relay logic, schematics, and diagrams. Hours (3 sem hrs; 2 lec; 2 lab)	IEIR 1310 - Motor Controls Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. General principles and fundamentals of electrical controls and control components including magnetic motor starters, troubleshooting techniques, overload protection and various protective devices, relay logic, schematics, and diagrams. Hours (3 sem hrs; 2 lec; 2 lab)
IEIR 1312 - Distribution Systems Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Fundamentals of distribution systems including single-phase, three-phase, and poly-phase systems. Grounding, circuit breakers, ground fault protection devices and the National Electric Code. Hours (3 sem hrs; 2 lec; 2 lab)	IEIR 1312 - Distribution Systems Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Fundamentals of distribution systems including single-phase, three-phase, and poly-phase systems. Grounding, circuit breakers, ground fault protection devices and the National Electric Code. Hours (3 sem hrs; 2 lec; 2 lab)
INMT 1305 - Introduction to Industrial Maintenance Prerequisite: ~~ETWR 1371~~ and MCHN 1343 - minimum grade of C. Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include application of precision measuring instruments and general safety rules common in industry, including lock-out/tag-out. Practice of basic layout and piece part measurement while using standard measuring tools is also emphasized. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	INMT 1305 - Introduction to Industrial Maintenance Prerequisite: ETWR 1302 and MCHN 1343 Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include application of precision measuring instruments and general safety rules common in industry, including lock-out/tag-out. Practice of basic layout and piece part measurement while using standard measuring tools is also emphasized. Hours (3 Sem Hrs; 2 Lec, 2 Lab)

INMT 2301 - Machinery Installation Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Students utilize skills acquired in previous studies. Machinery foundation, location and layout for machine footprint, installation, and alignment activities are practiced and tested as well as implementation of prevention and predictive maintenance programs. Emphasis is on the various methods of shaft alignment including laser shaft alignment and shaft straightening. Hours (3 sem hrs, 2 lec, 2 lab)	INMT 2301 - Machinery Installation Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Students utilize skills acquired in previous studies. Machinery foundation, location and layout for machine footprint, installation, and alignment activities are practiced and tested as well as implementation of prevention and predictive maintenance programs. Emphasis is on the various methods of shaft alignment including laser shaft alignment and shaft straightening. Hours (3 sem hrs, 2 lec, 2 lab)
INTC 1301 - Principles of Industrial Measurements I Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Principles of measurement. Includes operation of devices used to measure process variables and basic control functions. Hours (3 sem hrs; 2 lec, 2 lab)	INTC 1301 - Principles of Industrial Measurements I Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Principles of measurement. Includes operation of devices used to measure process variables and basic control functions. Hours (3 sem hrs; 2 lec, 2 lab)
INTC 1343 - Application of Industrial Automatic Controls Prerequisite: INTC 1301 - minimum grade of C. Automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves and process and instrument diagrams. Includes connection and troubleshooting of loops. Hours (3 sem hrs; 2 lec, 2 lab)	INTC 1343 - Application of Industrial Automatic Controls Prerequisite: INTC 1301 - minimum grade of C. Automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves and process and instrument diagrams. Includes connection and troubleshooting of loops. Hours (3 sem hrs; 2 lec, 2 lab)
INTC 1380 - Cooperative Education – Instrumentation Technology/Technician Prerequisite: Instructor consent Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 sem hrs; 1 lec, 20 hrs work/week)	INTC 1380 - Cooperative Education – Instrumentation Technology/Technician Prerequisite: Instructor consent Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 sem hrs; 1 lec, 20 hrs work/week)
INTC 1391 - Special Topics in Instrumentation Technology/Technician Prerequisite: Instructor consent Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)	INTC 1391 - Special Topics in Instrumentation Technology/Technician Prerequisite: Instructor consent Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)
INTC 2310 – Principles of Industrial Measurements II Prerequisite: INTC 1343 - minimum grade of C Additional principles of measurement. Includes devices used to measure process variables and basic control functions. Hours (3 sem hrs; 2 lec, 2 lab)	INTC 2310 – Principles of Industrial Measurements II Prerequisite: INTC 1343 - minimum grade of C Additional principles of measurement. Includes devices used to measure process variables and basic control functions. Hours (3 sem hrs; 2 lec, 2 lab)
MCHN 1343 – Machine Shop Mathematics Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses and all technical fields. Hour (3 Sem Hrs, 2 lec, 2 lab)	MCHN 1343 – Machine Shop Mathematics Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses and all technical fields. Hour (3 Sem Hrs, 2 lec, 2 lab)
MCHN 2312 - Millwright V Prerequisite – INMT 2301 - minimum grade of C. A study of the recognition and application of gearboxes. A review of	MCHN 2312 - Millwright V Prerequisite – INMT 2301 - minimum grade of C. A study of the recognition and application of gearboxes. A review of

drive installations using chain and belt drives. This course will focus on troubleshooting, repairing, and installing gearboxes, chain drives, and belt drives. Hours (3 sem hrs, 2 lec, 2 lab) WIND 2359 - Wind Power Delivery System Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Components, equipment and infrastructure used in the production and transmission of electricity as related to wind turbine power. Hours (3 sem hrs; 2 lec, 2 lab) WIND 1391 - Special Topics in Wind Energy Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)	drive installations using chain and belt drives. This course will focus on troubleshooting, repairing, and installing gearboxes, chain drives, and belt drives. Hours (3 sem hrs, 2 lec, 2 lab) WIND 2359 - Wind Power Delivery System Prerequisite: INMT 1305 and ELPT 1311 - minimum grade of C. Components, equipment and infrastructure used in the production and transmission of electricity as related to wind turbine power. Hours (3 sem hrs; 2 lec, 2 lab) WIND 1391 - Special Topics in Wind Energy Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)

Amarillo College Curriculum Committee Form

Course Changes – Change ELPT 1311 Course Requirements*

Program Division: Technical Education
Department: Industrial Technology Department
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	15.0403
Associated Study Area Identify primary program associated with course	Industrial Technology
Course Title (Written Out)	Basic Electrical Theory
Course Prefix and Number	ELPT 1311
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: MCHN-1343 and ETWR 1302 To take courses in sequence

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change INMT 1305 Course Requirements*

Program Division: Technical Education
Department: Industrial Technology Department
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	15.0403
Associated Study Area Identify primary program associated with course	Industrial Technology
Course Title (Written Out)	Introduction to Industrial Maintenance
Course Prefix and Number	INMT 1305
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: MCHN-1343 and ETWR 1302 To take courses in sequence

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Program Changes – Revise IMRT.AAS Curriculum

Program Division: Technical Education
Department: Industrial Technology
Program Point of Contact: Dr. Kim Hays, Department Chair (806-335-4366)
Date of Submission: 05/13/2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	15.0403
Associated Study Area Identify primary program associated with course	Industrial Technology
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Industrial Technology
Degree Audit Name (e.g. AERM.AAS)	IMRT.AAS
Reason/Justification for Request: Removal of local needs course from Curriculum. Adding the requirement of the Industrial Technology Core Certificate will allow students to take basic technical classes, and get exposure to the technical field before they take other specific classes and have the associated tool cost.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: None	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Add/remove special topics/local needs courses

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM	
Degree Name:	**Associates in Applied Science**
Total Credit Hours:	**60**
Total Clock Hours:	**1216**

PROPOSED CURRICULUM	
Degree Name:	**Associates in Applied Science**
Total Credit Hours:	**60**
Total Clock Hours:	**1216**

CURRENT General Education Curriculum (If Applicable)

Total Hours = 15

If you type in a specific general education course request below, please provide justification in notes box.

Foundational Area	Course Prefix and Number (If Applicable)	Course Name (If Applicable)	Credit Hours
Core 10	ENGL 1301	Composition I	3
Core 80		Social/Behavior Science Elective	3
Core 20	MATH 1332	Contemporary Mathematics I	3
		Language, Philosophy, Creative Art Elective	3
Core 90	SPCH xxx	Component Area Option	3

PROPOSED General Education Curriculum (If Applicable)

Total Hours = 15

If you type in a specific general education course request below, please provide justification in notes box.

Foundational Area	Course Prefix and Number (If Applicable)	Course Name (If Applicable)	Credit Hours
Core 10	ENGL 1301	Composition I	3
Core 80		Social/Behavior Science Elective	3
Core 20	MATH 1332	Contemporary Mathematics I	3
		Language, Philosophy, Creative Art Elective	3
Core 90	SPCH xxx	Component Area Option	3

CURRENT Major Course Requirements Hours = 15

Course Prefix and Number	Course Name	Credit Hours
ELMT 1301	Basic Programmable Logic Controllers	3
IEIR 1306	Electric Motors	3
IEIR 1310	Motor Controls	3
~~IEIR 1312~~	~~Distributions Systems~~	~~3~~
WLDG 1307	Introduction to Welding Using Multiple Processes	3

PROPOSED Major Course Requirements Hours = 12

Course Prefix and Number	Course Name	Credit Hours
ELMT 1301	Basic Programmable Logic Controllers	3
IEIR 1306	Electric Motors	3
IEIR 1310	Motor Controls	3
WLDG 1307	Introduction to Welding Using Multiple Processes	3

CURRENT Major Course Option Hours = 18		
OPTION 1: 1 (Note: If multiple options exist, merge cells to indicate next option block)		
Course Prefix and Number	**Course Name**	**Credit Hours**
Electromechanical		
ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
INMT 2301	Machinery Installation	3
MCHN 1332	Bench Work and Layout	3
MCHN 2312	Millwright V	3
Heating, Air Conditioning, and Refrigeration		
HART 1307	Refrigeration Principles	3
HART 1345	Gas and Electrical Heating	3
HART 2336	Air Conditioning Troubleshooting	3
HART 2338	Air Conditioning Installation and Startup	3
HART 2342	Commercial Refrigeration	3
WLDG 1372	Layout and Fabrication I	3
Instrument and Electronics		
EECT 2335	Telecommunications	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
INTC 1301	Principles of Industrial Measurements I	3
INTC 1343	Application of Industrial Automatic Controls	3
INTC 2310	Principles of Industrial Measurements II	3
Solar		
EECT 2335	Telecommunications	3
ELMT 1302	Solar Photovoltaic Systems	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
HART 1311	Solar Fundamentals	3
WIND 2359	Wind Power Delivery System	3
Wind		
EECT 2335	Telecommunications	3
ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
INMT 2301	Machinery Installation	3
WIND 2359	Wind Power Delivery System	3

PROPOSED Major Course Option Hours = 18		
OPTION 1: 1 (Note: If multiple options exist, merge cells to indicate next option block)		
Course Prefix and Number	**Course Name**	**Credit Hours**
Electromechanical		
ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
INMT 2301	Machinery Installation	3
MCHN 1332	Bench Work and Layout	3
MCHN 2312	Millwright V	3
Heating, Air Conditioning, and Refrigeration		
HART 1307	Refrigeration Principles	3
HART 1345	Gas and Electrical Heating	3
HART 2336	Air Conditioning Troubleshooting	3
HART 2338	Air Conditioning Installation and Startup	3
HART 2342	Commercial Refrigeration	3
WLDG 1372	Layout and Fabrication I	3
Instrument and Electronics		
EECT 2335	Telecommunications	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
INTC 1301	Principles of Industrial Measurements I	3
INTC 1343	Application of Industrial Automatic Controls	3
INTC 2310	Principles of Industrial Measurements II	3
Solar		
EECT 2335	Telecommunications	3
ELMT 1302	Solar Photovoltaic Systems	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
HART 1311	Solar Fundamentals	3
WIND 2359	Wind Power Delivery System	3
Wind		
EECT 2335	Telecommunications	3
ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
INMT 2301	Machinery Installation	3
WIND 2359	Wind Power Delivery System	3

CURRENT Related Course Requirements Hours = 12				PROPOSED Related Course Requirements Hours = 15		
Course Prefix and Number	**Course Name**	**Credit Hours**		**Course Prefix and Number**	**Course Name**	**Credit Hours**
Technical Core				Industrial Technology Core		
ELPT 1311	Basic Electrical Theory	3		ELPT 1311	Basic Electrical Theory	3
~~ETWR 1371~~	~~Technical Communication~~	~~3~~		ETWR 1302	Introduction to Technical Writing	3
INMT 1305	Introduction to Industrial Maintenance	3		INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3		MCHN 1343	Machine Shop Mathematics	3
				IEIR 1312	Distribution Systems	3

Course Sequencing and Requirements Notes:

NEW PROGRAM COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

Ensure the following:

- If AAS, 50-75% is drawn from common technical specialty identified by CIP and the rest made up of 15 general education course hours and support courses (must document if more academic required due to FOS or advisory committee)
- If AAS, 3 or fewer courses can be Special Topics or Local Needs; If Level 2 certificate, 2 or fewer courses can be Special Topics or Local Needs; If Level 1 certificate, 1 or no courses can be Special Topics or Local Needs
- If AAS or CERT, all curriculum must align with licensing/accrediting authority (if applicable)
- Lecture/Lab Hours must fall into allowable contact ranges (See Table 4.1 on pg. 33 number at bottom or 37 pdf of GIPWE)
- For WECM, the course sequencing must be arranged so students cannot enroll in a course and its pre-requisite in same term unless both courses can be delivered in a compressed format without an overlap of the two courses.
- Semesters (16 weeks and shorter) should not award more than one SCH per week of instruction.

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - A.A.S.			Electromechanical Technician Option					
IMRT.AAS								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processe	WECM	2	2		64	3
MCHN	1332	Bench Work and Layout	WECM	2	2		64	3
ENGL	1301	Composition I	AGCM	3	1		64	3
		Total		9	7	0	256	12
Third Semester - Summer								
		Language, Philosophy, Creative Arts Elec	AGCM	3	0		48	3
MATH	1332	Contemporary Mathematics 1	AGCM	3	0		48	3
		Total		6	0	0	96	6
Fourth Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
INMT	2301	Machinery Installation	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
MCHN	2312	Millwright V	WECM	2	2		64	3
		Total		8	8	0	256	12
Fifth Semester - Spring								
ELMT	2341	Electromechanical Systems	WECM	2	2		64	3
ELMT	2333	Indstrial Electronics	WECM	2	2		64	3
SPCH	xxxx	Component Area Option	AGCM	3	0		48	3
		Social/Behavioral Science Elective	AGCM	3	0		48	3
ELMT	1305	Basic Fluid Power	WECM	2	2		64	3
		Total		12	6	0	288	15
		Grand Total		45	31	0	1216	60

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - A.A.S.					HVAC Option			
IMRT.AAS								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
HART	1307	Refrigeration Principles	WECM	2	2		64	3
ENGL	1301	Composition I	AGCM	3	1		64	3
HART	2338	Air Conditioning Installation & Startup	WECM	2	2		64	3
		Total		11	9	0	320	15
Third Semester - Summer								
		Language, Philosophy, Creative Arts Elective	AGCM	3	0		48	3
MATH	1332	Contemporary Mathematics 1	AGCM	3	0		48	3
		Total		6	0	0	96	6
Fourth Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
WLDG	1372	Layout and Fabrication 1	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
HART	2342	Commercial Refrigeration	WECM	2	2		64	3
		Total		8	8	0	256	12
Fifth Semester - Spring								
HART	1345	Gas & Electric Heating	WECM	2	2		64	3
SPCH	xxxx	Component Area Option	AGCM	3	0		48	3
		Social/Behavioral Science Elective	AGCM	3	0		48	3
HART	2336	Air Conditioning Troubleshooting	WECM	2	2		64	3
		Total		10	4	0	224	12
		Grand Total		45	31	0	1216	60

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - A.A.S.					Solar Technician Option			
IMRT.AAS								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
ENGL	1301	Composition I	AGCM	3	1		64	3
		Total		9	7	0	256	12
Third Semester - Summer								
		Language, Philosophy, Creative Arts Elective	AGCM	3	0		48	3
MATH	1332	Contemporary Mathematics 1	AGCM	3	0		48	3
		Total		6	0	0	96	6
Fourth Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
HART	1311	Solar Fundamentals	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
WIND	2359	Wind Power Delivery System	WECM	2	2		64	3
		Total		8	8	0	256	12
Fifth Semester - Spring								
ELMT	2341	Electromechanical Systems	WECM	2	2		64	3
ELMT	2333	Industrial Electronics	WECM	2	2		64	3
SPCH	xxxx	Component Area Option	AGCM	3	0		48	3
		Social/Behavioral Science Elective	AGCM	3	0		48	3
ELMT	1302	Solar Photovoltaic Systems	WECM	2	2		64	3
		Total		12	6	0	288	15
		Grand Total		45	31	0	1216	60

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - A.A.S.					Wind Technician Option			
IMRT.AAS								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processe	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
ENGL	1301	Composition I	AGCM	3	1		64	3
		Total		9	7	0	256	12
Third Semester - Summer								
		Language, Philosophy, Creative Arts Elec	AGCM	3	0		48	3
MATH	1332	Contemporary Mathematics 1	AGCM	3	0		48	3
		Total		6	0	0	96	6
Fourth Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
INMT	2301	Machinery Installation	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
WIND	2359	Wind Power Delivery System	WECM	2	2		64	3
		Total		8	8	0	256	12
Fifth Semester - Spring								
ELMT	2341	Electromechanical Systems	WECM	2	2		64	3
ELMT	2333	Industrial Electronics	WECM	2	2		64	3
SPCH	xxxx	Component Area Option	AGCM	3	0		48	3
		Social/Behavioral Science Elective	AGCM	3	0		48	3
ELMT	1305	Basic Fluid Power	WECM	2	2		64	3
		Total		12	6	0	288	15
		Grand Total		45	31	0	1216	60

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - A.A.S.			Instrument and Electronics Technician Option					
IMRT.AAS								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processe	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
ENGL	1301	Composition I	AGCM	3	1		64	3
		Total		9	7	0	256	12
Third Semester - Summer								
		Language, Philosophy, Creative Arts Elec	AGCM	3	0		48	3
MATH	1332	Contemporary Mathematics 1	AGCM	3	0		48	3
		Total		6	0	0	96	6
Fourth Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
INTC	1301	Principles of Industrial Measurements I	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
INTC	1343	Application of Industrial Auto Controls	WECM	2	2		64	3
		Total		8	8	0	256	12
Fifth Semester - Spring								
ELMT	2341	Electromechanical Systems	WECM	2	2		64	3
ELMT	2333	Indstrial Electronics	WECM	2	2		64	3
SPCH	xxxx	Component Area Option	AGCM	3	0		48	3
		Social/Behavioral Science Elective	AGCM	3	0		48	3
INTC	2310	Principles of Industrial Measurements II	WECM	2	2		64	3
		Total		12	6	0	288	15
		Grand Total		45	31	0	1216	60

Current	Proposed
Industrial Technology (A.A.S.) Program Advisor - ~~Delane McUne, 335-4309 (delane.mcune@actx.edu)~~ or contact Claudia Arnold, 335-4301 (caarnold@actx.edu) Associate In Applied Science Major Code – IMRT.AAS *actx.edu/industrial* This curriculum prepares students for positions requiring advanced technical training in several options of the Industrial Technology career field. Specialized areas include Electromechanical, HVAC, Instrumentation and Electronics or Renewable Energy. The Technical Core must be completed prior to other classes. General Education Requirements (15 Semester Hours) Communication – 3 Hours ENGL 1301 - Composition I Social/Behavioral Science* - 3 Hours Life & Physical Sciences* Or Mathematics* - 3 Hours MATH 1332 - Contemporary Mathematics 1 (or any college level Mathematics course) Language, Philosophy & Culture* Or Creative Arts* - 3 Hours Component Area Option – 3 Hours Speech (Communication foundational component area) Or EDUC 1300 – First Year Seminar * As specified in individual curricula or selected from the General Education Course List. ~~Technical Core Requirements (12 Semester Hours)~~ ~~ELPT 1311 – Basic Electrical Theory~~ ~~ETWR 1371 – Technical Communication~~ ~~INMT 1305 – Introduction to Industrial Maintenance~~ ~~MCHN 1343 – Machine Shop Mathematics~~ Major Course Requirements (15 Semester Hours) ELMT 1301 - Basic Programmable Logic Controllers IEIR 1306 - Electric Motors IEIR 1310 - Motor Controls ~~IEIR 1312 - Distribution Systems~~ WLDG 1307 - Introduction to Welding Using Multiple Processes Major Options (18 Semester Hours) The student must choose one of the following specialties: Electromechanical Technician (18 Semester Hours) ELMT 1305 - Basic Fluid Power ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INMT 2301 - Machinery Installation MCHN 1332 – Bench Work and Layout MCHN 2312 - Millwright V Heating, Air Conditioning, and Refrigeration (18 Semester Hours) HART 1307 - Refrigeration Principles HART 1345 - Gas and Electric Heating HART 2336 - Air Conditioning Troubleshooting HART 2338 - Air Conditioning Installation and Startup HART 2342 - Commercial Refrigeration WLDG 1372 – Layout and Fabrication I Instrument and Electronics Technician (18 Semester Hours)	Industrial Technology (A.A.S.) Program Advisor Dr. Kim Hays, , 335-4366 (kthays@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu) Associate In Applied Science Major Code – IMRT.AAS *actx.edu/industrial* This curriculum prepares students for positions requiring advanced technical training in several options of the Industrial Technology career field. Specialized areas include Electromechanical, HVAC, Instrumentation and Electronics or Renewable Energy. Industrial Technology Core Certificate must be completed prior to other classes. General Education Requirements (15 Semester Hours) Communication – 3 Hours ENGL 1301 - Composition I Social/Behavioral Science* - 3 Hours Life & Physical Sciences* Or Mathematics* - 3 Hours MATH 1332 - Contemporary Mathematics 1 (or any college level Mathematics course) Language, Philosophy & Culture* Or Creative Arts* - 3 Hours Component Area Option – 3 Hours Speech (Communication foundational component area) Or EDUC 1300 – First Year Seminar * As specified in individual curricula or selected from the General Education Course List. Industrial Technology Core Certificate Requirements (15 Semester Hours) Major Course Requirements (15 Semester Hours) ELMT 1301 - Basic Programmable Logic Controllers IEIR 1306 - Electric Motors IEIR 1310 - Motor Controls WLDG 1307 - Introduction to Welding Using Multiple Processes Major Options (18 Semester Hours) The student must choose one of the following specialties: Electromechanical Technician (18 Semester Hours) ELMT 1305 - Basic Fluid Power ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INMT 2301 - Machinery Installation MCHN 1332 – Bench Work and Layout MCHN 2312 - Millwright V Heating, Air Conditioning, and Refrigeration (18 Semester Hours) HART 1307 - Refrigeration Principles HART 1345 - Gas and Electric Heating HART 2336 - Air Conditioning Troubleshooting HART 2338 - Air Conditioning Installation and Startup HART 2342 - Commercial Refrigeration WLDG 1372 – Layout and Fabrication I Instrument and Electronics Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems

EECT 2335 – Telecommunications ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INTC 1301 – Principles of Industrial Measurements I INTC 1343 – Application of Industrial Automatic Controls INTC 2310 – Principles of Industrial Measurements II Solar Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 1302 – Solar Photovoltaic Systems ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems HART 1311 – Solar Fundamentals WIND 2359 – Wind Power Delivery System Wind Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 1305 - Basic Fluid Power ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INMT 2301 - Machinery Installation WIND 2359 – Wind Power Delivery System Total (60 Semester Hours)	INTC 1301 – Principles of Industrial Measurements I INTC 1343 – Application of Industrial Automatic Controls INTC 2310 – Principles of Industrial Measurements II Solar Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 1302 – Solar Photovoltaic Systems ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems HART 1311 – Solar Fundamentals WIND 2359 – Wind Power Delivery System Wind Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 1305 - Basic Fluid Power ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INMT 2301 - Machinery Installation WIND 2359 – Wind Power Delivery System Total (60 Semester Hours)
Industrial Technology Advanced Certificates Program Advisor - ~~Delane McUne, 335-4309 (delane.mcune@actx.edu)~~ or contact Claudia Arnold, 335-4301 (caarnold@actx.edu) *Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.* Certificates of Completion Major Code – IMRT.CERT.ELMT *actx.edu/industrial* These certificates prepare students for entry positions in specific technical trades. The Technical Core must be completed prior to other classes. ~~Technical Core Requirements (12 Semester Hours)~~ ~~ELPT 1311 – Basic Electrical Theory~~ ~~ETWR 1371 – Technical Communication~~ ~~INMT 1305 – Introduction to Industrial Maintenance~~ ~~MCHN 1343 – Machine Shop Mathematics~~ Major Course Requirements (15 Semester Hours) ELMT 1301 - Basic Programmable Logic Controllers IEIR 1306 - Electric Motors IEIR 1310 - Motor Controls ~~IEIR 1312 - Distribution Systems~~ WLDG 1307 - Introduction to Welding Using Multiple Processes Major Options (18 Semester Hours) The student must choose one of the following specialties: Electromechanical Technician (18 Semester Hours) ELMT 1305 - Basic Fluid Power ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems	Industrial Technology Advanced Certificates Program Advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu) *Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.* Certificates of Completion Major Code – IMRT.CERT.ELMT *actx.edu/industrial* These certificates prepare students for entry positions in specific technical trades. The Technical Core must be completed prior to other classes. Industrial Technology Core Certificate must be completed prior to other classes. Industrial Technology Core Certificate Requirements (15 Semester Hours) Major Course Requirements (15 Semester Hours) ELMT 1301 - Basic Programmable Logic Controllers IEIR 1306 - Electric Motors IEIR 1310 - Motor Controls WLDG 1307 - Introduction to Welding Using Multiple Processes Major Options (18 Semester Hours) The student must choose one of the following specialties: Electromechanical Technician (18 Semester Hours) ELMT 1305 - Basic Fluid Power ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INMT 2301 - Machinery Installation MCHN 1332 – Bench Work and Layout

INMT 2301 - Machinery Installation MCHN 1332 – Bench Work and Layout MCHN 2312 - Millwright V Heating, Air Conditioning, and Refrigeration (18 Semester Hours) HART 1307 - Refrigeration Principles HART 1345 - Gas and Electric Heating HART 2336 - Air Conditioning Troubleshooting HART 2338 - Air Conditioning Installation and Startup HART 2342 - Commercial Refrigeration WLDG 1372 – Layout and Fabrication I Instrument and Electronics Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INTC 1301 – Principles of Industrial Measurements I INTC 1343 – Application of Industrial Automatic Controls INTC 2310 – Principles of Industrial Measurements II Solar Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 1302 – Solar Photovoltaic Systems ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems HART 1311 – Solar Fundamentals WIND 2359 – Wind Power Delivery System Wind Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 1305 - Basic Fluid Power ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INMT 2301 - Machinery Installation WIND 2359 – Wind Power Delivery System Total (45 Semester Hours)	MCHN 2312 - Millwright V Heating, Air Conditioning, and Refrigeration (18 Semester Hours) HART 1307 - Refrigeration Principles HART 1345 - Gas and Electric Heating HART 2336 - Air Conditioning Troubleshooting HART 2338 - Air Conditioning Installation and Startup HART 2342 - Commercial Refrigeration WLDG 1372 – Layout and Fabrication I Instrument and Electronics Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INTC 1301 – Principles of Industrial Measurements I INTC 1343 – Application of Industrial Automatic Controls INTC 2310 – Principles of Industrial Measurements II Solar Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 1302 – Solar Photovoltaic Systems ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems HART 1311 – Solar Fundamentals WIND 2359 – Wind Power Delivery System Wind Technician (18 Semester Hours) EECT 2335 – Telecommunications ELMT 1305 - Basic Fluid Power ELMT 2333 – Industrial Electronics ELMT 2341 - Electromechanical Systems INMT 2301 - Machinery Installation WIND 2359 – Wind Power Delivery System Total (45 Semester Hours)
Industrial Technology Basic Certificates Program Advisor - ~~Delane McUne, 335-4309 (delane.mcune@actx.edu)~~ or contact Claudia Arnold, 335-4301 (caarnold@actx.edu) *Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.* Certificates of Completion Major Code – IMRT.CERT *actx.edu/industrial* These certificates prepare students for advanced training opportunities in multiple trade areas. The Technical Core must be completed prior to other classes. ~~Technical Core Requirements (12 Semester Hours)~~ ~~ELPT 1311 – Basic Electrical Theory~~ ~~ETWR 1371 – Technical Communication~~ ~~INMT 1305 – Introduction to Industrial Maintenance~~ ~~MCHN 1343 – Machine Shop Mathematics~~ Major Course Requirements (9 Semester Hours)	Industrial Technology Basic Certificates Program Advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu) *Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.* Certificates of Completion Major Code – IMRT.CERT *actx.edu/industrial* These certificates prepare students for advanced training opportunities in multiple trade areas. The Technical Core must be completed prior to other classes. Industrial Technology Core Certificate must be completed prior to other classes. Industrial Technology Core Certificate Requirements (15 Semester Hours) Major Course Requirements (6 Semester Hours) IEIR 1310 - Motor Controls

IEIR 1310 - Motor Controls IEIR 1312 - Distribution Systems WLDG 1307 - Introduction to Welding Using Multiple Processes Major Options (3-6 Semester Hours) The student must choose one of the following specialties: Electromechanical Technician (3 Semester Hours) MCHN 1332 – Bench Work and Layout Heating, Air Conditioning, and Refrigeration (6 Semester Hours) HART 1307 - Refrigeration Principles HART 2338 - Air Conditioning Installation and Startup Instrument and Electronics Technician (3 Semester Hours) EECT 2335 – Telecommunications Solar Technician (3 Semester Hours) EECT 2335 – Telecommunications Wind Technician (3 Semester Hours) EECT 2335 – Telecommunications Total (24-27 Semester Hours)	WLDG 1307 - Introduction to Welding Using Multiple Processes Major Options (3-6 Semester Hours) The student must choose one of the following specialties: Electromechanical Technician (3 Semester Hours) MCHN 1332 – Bench Work and Layout Heating, Air Conditioning, and Refrigeration (6 Semester Hours) HART 1307 - Refrigeration Principles HART 2338 - Air Conditioning Installation and Startup Instrument and Electronics Technician (3 Semester Hours) EECT 2335 – Telecommunications Solar Technician (3 Semester Hours) EECT 2335 – Telecommunications Wind Technician (3 Semester Hours) EECT 2335 – Telecommunications Total (24-27 Semester Hours)
Industrial Technology – ~~Technical Core~~ Program Advisor – ~~Delane McUne, 335-4309 (delane.mcune@actx.edu)~~ or contact Claudia Arnold, 335-4301 (caarnold@actx.edu) *Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.* Certificate of Completion ~~Major Code – IMRT.MKT.CERT~~ *actx.edu/industrial* This certificate creates the foundation for all Industrial Technology certificates and degrees. ~~Technical Core Requirements (12 Semester Hours)~~ ELPT 1311 – Basic Electrical Theory ETWR ~~1371 – Technical Communication~~ INMT 1305 – Introduction to Industrial Maintenance MCHN 1343 – Machine Shop Mathematics ~~Total (12 Semester Hours)~~	Industrial Technology –Core Certificate Program Advisor –Dr. Kim Hays, 335-4366 (kthays @actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu) *Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.* Industrial Technology Core Certificate must be completed prior to other classes. Certificate of Completion Major Code – IMRT.XXX.CERT *actx.edu/industrial* This certificate creates the foundation for all Industrial Technology certificates and degrees. Industrial Technology Core Certificate Requirements (15 Semester Hours) ELPT 1311 – Basic Electrical Theory ETWR 1302 – Introduction to Technical Writing INMT 1305 – Introduction to Industrial Maintenance MCHN 1343 – Machine Shop Mathematics IEIR 1312 – Distribution Systems Total (15 Semester Hours)

Amarillo College Curriculum Committee Form

Program Changes – Revise IMRT.CERT.ELMT Curriculum

Program Division: Technical Education
Department: Industrial Technology
Program Point of Contact: Dr. Kim Hays, Department Chair (806-335-4366)
Date of Submission: 05/13/2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	15.0403
Associated Study Area Identify primary program associated with course	Industrial Technology
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Industrial Technology
Degree Audit Name (e.g. AERM.AAS)	IMRT.CERT.ELMT
Reason/Justification for Request: Removal of local needs course from Curriculum. Adding the requirement of the Industrial Technology Core Certificate will allow students to take basic technical classes, and get exposure to the technical field before they take other specific classes and have the associated tool cost.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: None	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Add/remove special topics/local needs courses

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM	
Degree Name:	**Industrial Technology Advanced Certificate**
Total Credit Hours:	**45**
Total Clock Hours:	**960**

PROPOSED CURRICULUM	
Degree Name:	**Industrial Technology Advanced Certificate**
Total Credit Hours:	**45**
Total Clock Hours:	**960**

CURRENT Major Course Requirements Hours = 15

Course Prefix and Number	Course Name	Credit Hours
ELMT 1301	Basic Programmable Logic Controllers	3
IEIR 1306	Electric Motors	3
IEIR 1310	Motor Controls	3
~~IEIR 1312~~	~~Distributions Systems~~	~~3~~
WLDG 1307	Introduction to Welding Using Multiple Processes	3

PROPOSED Major Course Requirements Hours = 12

Course Prefix and Number	Course Name	Credit Hours
ELMT 1301	Basic Programmable Logic Controllers	3
IEIR 1306	Electric Motors	3
IEIR 1310	Motor Controls	3
WLDG 1307	Introduction to Welding Using Multiple Processes	3

CURRENT Major Course Option Hours = 18

OPTION 1: 1
(Note: If multiple options exist, merge cells to indicate next option block)

Course Prefix and Number	Course Name	Credit Hours
Electromechanical		
ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
INMT 2301	Machinery Installation	3
MCHN 1332	Bench Work and Layout	3
MCHN 2312	Millwright V	3
Heating, Air Conditioning, and Refrigeration		
HART 1307	Refrigeration Principles	3

PROPOSED Major Course Option Hours = 18

OPTION 1: 1
(Note: If multiple options exist, merge cells to indicate next option block)

Course Prefix and Number	Course Name	Credit Hours
Electromechanical		
ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3
INMT 2301	Machinery Installation	3
MCHN 1332	Bench Work and Layout	3
MCHN 2312	Millwright V	3
Heating, Air Conditioning, and Refrigeration		
HART 1307	Refrigeration Principles	3

HART 1345	Gas and Electrical Heating	3		HART 1345	Gas and Electrical Heating	3
HART 2336	Air Conditioning Troubleshooting	3		HART 2336	Air Conditioning Troubleshooting	3
HART 2338	Air Conditioning Installation and Startup	3		HART 2338	Air Conditioning Installation and Startup	3
HART 2342	Commercial Refrigeration	3		HART 2342	Commercial Refrigeration	3
WLDG 1372	Layout and Fabrication I	3		WLDG 1372	Layout and Fabrication I	3
Instrument and Electronics				Instrument and Electronics		
EECT 2335	Telecommunications	3		EECT 2335	Telecommunications	3
ELMT 2333	Industrial Electronics	3		ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3		ELMT 2341	Electromechanical Systems	3
INTC 1301	Principles of Industrial Measurements I	3		INTC 1301	Principles of Industrial Measurements I	3
INTC 1343	Application of Industrial Automatic Controls	3		INTC 1343	Application of Industrial Automatic Controls	3
INTC 2310	Principles of Industrial Measurements II	3		INTC 2310	Principles of Industrial Measurements II	3
Solar				Solar		
EECT 2335	Telecommunications	3		EECT 2335	Telecommunications	3
ELMT 1302	Solar Photovoltaic Systems	3		ELMT 1302	Solar Photovoltaic Systems	3
ELMT 2333	Industrial Electronics	3		ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3		ELMT 2341	Electromechanical Systems	3
HART 1311	Solar Fundamentals	3		HART 1311	Solar Fundamentals	3
WIND 2359	Wind Power Delivery System	3		WIND 2359	Wind Power Delivery System	3
Wind				Wind		
EECT 2335	Telecommunications	3		EECT 2335	Telecommunications	3
ELMT 1305	Basic Fluid Power	3		ELMT 1305	Basic Fluid Power	3
ELMT 2333	Industrial Electronics	3		ELMT 2333	Industrial Electronics	3
ELMT 2341	Electromechanical Systems	3		ELMT 2341	Electromechanical Systems	3
INMT 2301	Machinery Installation	3		INMT 2301	Machinery Installation	3
WIND 2359	Wind Power Delivery System	3		WIND 2359	Wind Power Delivery System	3

CURRENT Related Course Requirements Hours = 12				**PROPOSED Related Course Requirements Hours = 15**		
Course Prefix and Number	**Course Name**	**Credit Hours**		**Course Prefix and Number**	**Course Name**	**Credit Hours**
Technical Core				Industrial Technology Core		
ELPT 1311	Basic Electrical Theory	3		ELPT 1311	Basic Electrical Theory	3
~~ETWR 1371~~	~~Technical Communication~~	~~3~~		ETWR 1302	Introduction to Technical Writing	3
INMT 1305	Introduction to Industrial Maintenance	3		INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3		MCHN 1343	Machine Shop Mathematics	3
				IEIR 1312	Distribution Systems	3

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Advanced Certificate			Electromechanical Technician Option					
IMRT.CERT.ELMT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
MCHN	1332	Bench Work and Layout	WECM	2	2		64	3
		Total		6	6	0	192	9
Third Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
INMT	2301	Machinery Installation	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
MCHN	2312	Millwright V	WECM	2	2		64	3
		Total		8	8	0	256	12
Fourth Semester - Spring								
ELMT	2341	Electromechanical Systems	WECM	2	2		64	3
ELMT	2333	Indstrial Electronics	WECM	2	2		64	3
ELMT	1305	Basic Fluid Power	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		30	30	0	960	45

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Advanced Certificate			HVAC Option					
IMRT.CERT.ELMT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
HART	1307	Refrigeration Principles	WECM	2	2		64	3
HART	2338	Air Conditioning Installation & Startup	WECM	2	2		64	3
		Total		8	8	0	256	12
Third Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
WLDG	1372	Layout and Fabrication 1	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
HART	2342	Commercial Refrigeration	WECM	2	2		64	3
		Total		8	8	0	256	12
Fourth Semester - Spring								
HART	1345	Gas & Electric Heating	WECM	2	2		64	3
HART	2336	Air Conditioning Troubleshooting	WECM	2	2		64	3
		Total		4	4	0	128	6
		Grand Total		30	30	0	960	45

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Advanced Certificate			Instrument & Electronics Technician Option					
IMRT.CERT.ELMT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processe	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
		Total		6	6	0	192	9
Third Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
INTC	1301	Principles of Industrial Measurements I	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
INTC	1343	Application of Industrial Auto Controls	WECM	2	2		64	3
		Total		8	8	0	256	12
Fourth Semester - Spring								
ELMT	2341	Electromechanical Systems	WECM	2	2		64	3
ELMT	2333	Indstrial Electronics	WECM	2	2		64	3
INTC	2310	Principles of Industrial Measurements II	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		30	30	0	960	45

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Advanced Certificate					Solar Technician Option			
IMRT.CERT.ELMT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
		Total		6	6	0	192	9
Third Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
HART	1311	Solar Fundamentals	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
WIND	2359	Wind Power Delivery System	WECM	2	2		64	3
		Total		8	8	0	256	12
Fourth Semester - Spring								
ELMT	2341	Electromechanical Systems	WECM	2	2		64	3
ELMT	2333	Indstrial Electronics	WECM	2	2		64	3
ELMT	1302	Solar Photovoltaic Systems	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		30	30	0	960	45

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Advanced Certificate					Wind Technician Option			
IMRT.CERT.ELMT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
		Total		6	6	0	192	9
Third Semester - Fall								
ELMT	1301	Programmable Logic Controllres	WECM	2	2		64	3
INMT	2301	Machinery Installation	WECM	2	2		64	3
IEIR	1306	Electric Motors	WECM	2	2		64	3
WIND	2359	Wind Power Delivery System	WECM	2	2		64	3
		Total		8	8	0	256	12
Fourth Semester - Spring								
ELMT	2341	Electromechanical Systems	WECM	2	2		64	3
ELMT	2333	Indstrial Electronics	WECM	2	2		64	3
ELMT	1305	Basic Fluid Power	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		30	30	0	960	45

Amarillo College Curriculum Committee Form

Program Changes – Revise IMRT.CERT Curriculum

Program Division: Technical Education
Department: Industrial Technology
Program Point of Contact: Dr. Kim Hays, Department Chair (806-335-4366)
Date of Submission: 05/13/2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	15.0403
Associated Study Area Identify primary program associated with course	Industrial Technology
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Industrial Technology
Degree Audit Name (e.g. AERM.AAS)	IMRT.CERT
Reason/Justification for Request: Removal of local needs course from Curriculum. Adding the requirement of the Industrial Technology Core Certificate will allow students to take basic technical classes, and get exposure to the technical field before they take other specific classes and have the associated tool cost.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: None	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Add/remove special topics/local needs courses

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM	
Degree Name:	**Industrial Technology Basic Certificate**
Total Credit Hours:	**24-27**
Total Clock Hours:	**512-576**

PROPOSED CURRICULUM	
Degree Name:	**Industrial Technology Basic Certificate**
Total Credit Hours:	**24-27**
Total Clock Hours:	**512-576**

CURRENT Major Course Requirements Hours = 9		
Course Prefix and Number	**Course Name**	**Credit Hours**
IEIR 1310	Motor Controls	3
~~IEIR 1312~~	~~Distributions Systems~~	~~3~~
WLDG 1307	Introduction to Welding Using Multiple Processes	3

PROPOSED Major Course Requirements Hours =		
Course Prefix and Number	**Course Name**	**Credit Hours**
IEIR 1310	Motor Controls	3
WLDG 1307	Introduction to Welding Using Multiple Processes	3

CURRENT Major Course Option Hours = 3-6		
OPTION 1: 1 **(Note: If multiple options exist, merge cells to indicate next option block)**		
Course Prefix and Number	**Course Name**	**Credit Hours**
Electromechanical		
MCHN 1332	Bench Work and Layout	3
Heating, Air Conditioning, and Refrigeration		
HART 1307	Refrigeration Principles	3
HART 2338	Air Conditioning Installation and Startup	3
Instrument and Electronics		
EECT 2335	Telecommunications	3
Solar		
EECT 2335	Telecommunications	3

PROPOSED Major Course Option Hours = 3-6		
OPTION 1: 1 **(Note: If multiple options exist, merge cells to indicate next option block)**		
Course Prefix and Number	**Course Name**	**Credit Hours**
Electromechanical		
MCHN 1332	Bench Work and Layout	3
Heating, Air Conditioning, and Refrigeration		
HART 1307	Refrigeration Principles	3
HART 2338	Air Conditioning Installation and Startup	3
Instrument and Electronics		
EECT 2335	Telecommunications	3
Solar		
EECT 2335	Telecommunications	3

Wind				Wind		
EECT 2335	Telecommunications	3		EECT 2335	Telecommunications	3

CURRENT Related Course Requirements Hours = 12				**PROPOSED Related Course Requirements Hours = 15**		
Course Prefix and Number	**Course Name**	**Credit Hours**		**Course Prefix and Number**	**Course Name**	**Credit Hours**
Technical Core				Industrial Technology Core		
ELPT 1311	Basic Electrical Theory	3		ELPT 1311	Basic Electrical Theory	3
~~ETWR 1371~~	~~Technical Communication~~	~~3~~		ETWR 1302	Introduction to Technical Writing	3
INMT 1305	Introduction to Industrial Maintenance	3		INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3		MCHN 1343	Machine Shop Mathematics	3
				IEIR 1312	Distribution Systems	3

Course Sequencing and Requirements Notes:

NEW PROGRAM COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

Ensure the following:

- If AAS, 50-75% is drawn from common technical specialty identified by CIP and the rest made up of 15 general education course hours and support courses (must document if more academic required due to FOS or advisory committee)
- If AAS, 3 or fewer courses can be Special Topics or Local Needs; If Level 2 certificate, 2 or fewer courses can be Special Topics or Local Needs; If Level 1 certificate, 1 or no courses can be Special Topics or Local Needs
- If AAS or CERT, all curriculum must align with licensing/accrediting authority (if applicable)
- Lecture/Lab Hours must fall into allowable contact ranges (See Table 4.1 on pg. 33 number at bottom or 37 pdf of GIPWE)
- For WECM, the course sequencing must be arranged so students cannot enroll in a course and its pre-requisite in same term unless both courses can be delivered in a compressed format without an overlap of the two courses.
- Semesters (16 weeks and shorter) should not award more than one SCH per week of instruction.

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Basic Certificate			Electromechanical Technician Option					
IMRT.CERT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processe	WECM	2	2		64	3
MCHN	1332	Bench Work and Layout	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		16	16	0	512	24

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Basic Certificate			HVAC Option					
IMRT.CERT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
HART	1307	Refrigeration Principles	WECM	2	2		64	3
HART	2338	Air Conditioning Installation & Startup	WECM	2	2		64	3
		Total		8	8	0	256	12
		Grand Total		18	18	0	576	27

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Basic Certificate			Solar Technician Option					
IMRT.CERT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		16	16	0	512	24

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Basic Certificate			Wind Technician Option					
IMRT.CERT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		16	16	0	512	24

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Basic Certificate			Instrument and Electronics Technician Option					
IMRT.CERT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
IEIR	1310	Motor Controls	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processe	WECM	2	2		64	3
EECT	2335	Telecommunications	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		16	16	0	512	24

Amarillo College Curriculum Committee Form

Program Changes – Revise Curriculum

Program Division: Technical Education
Department: Industrial Technology
Program Point of Contact: Dr. Kim Hays, Department Chair (806-335-4366)
Date of Submission: 05/13/2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	15.0403
Associated Study Area Identify primary program associated with course	Industrial Technology
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Industrial Technology
Degree Audit Name (e.g. AERM.AAS)	IMRT.XXX.CERT
Reason/Justification for Request: Removal of local needs course from Curriculum. Adding the requirement of the Industrial Technology Core Certificate will allow students to take basic technical classes, and get exposure to the technical field before they take other specific classes and have the associated tool cost.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: none	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Add/remove special topics/local needs courses • Change the number of SCH of award • Change certificate from marketable skills to level-1 (TSI-waived)

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM			PROPOSED CURRICULUM	
Degree Name:	**Industrial Technology Marketable skills Certificate**		**Degree Name:**	**Industrial Technology Core Certificate**
Total Credit Hours:	**12**		**Total Credit Hours:**	**15**
Total Clock Hours:	**256**		**Total Clock Hours:**	**320**

CURRENT Related Course Requirements Hours = 12			PROPOSED Related Course Requirements Hours = 15		
Course Prefix and Number	**Course Name**	**Credit Hours**	**Course Prefix and Number**	**Course Name**	**Credit Hours**
Technical Core			Industrial Technology Core		
ELPT 1311	Basic Electrical Theory	3	ELPT 1311	Basic Electrical Theory	3
~~ETWR 1371~~	~~Technical Communication~~	~~3~~	ETWR 1302	Introduction to Technical Writing	3
INMT 1305	Introduction to Industrial Maintenance	3	INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3	MCHN 1343	Machine Shop Mathematics	3
			IEIR 1312	Distribution Systems	3

Course Sequencing and Requirements Notes:

Amarillo College								
Technical Education								
Industrial Technology Department								
Industrial Technology - Core Certificate								
IMRT.XXX.CERT								
First Semester - Fall - (Core Certificate)			Type	Lec	Lab	External	Contact	Credit
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
IEIR	1312	Distribution Systems	WECM	2	2		64	3
		Total		10	10	0	320	15
		Grand Total		10	10	0	320	15

Division: Technical Education

Department/Program: Technical Core and Manufacturing

Prepared By: Megan Eikner

Request:

1. **Delete Course from Inventory:** Technical Communication (ETWR 1371)
2. **Add Course to Inventory:** Introduction to Technical Writing (ETWR 1302)
3. **Change Course Requirements (Pre-Requisites): MCHN** 1341, 1352, 1354, 2303; **NDTE** 1171, 1274; **WLDG** 1337, 1370, 1373, 1377, 1378

Amarillo College Curriculum Committee Form

Course Changes – Delete ETWR 1371 from the Inventory

Program Division: Technical Education
Department: **Technical Core**
Program Point of Contact: **Ed Nolte, Program Coordinator, 806-335-4277**
Date of Submission: May 12, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	23.1303
Associated Study Area Identify primary program associated with course	Technical Core
Planned Effective Date:	Term: _Fall_____ Year: __2016_____
Course Title (Written Out):	Technical Communication
Course Prefix and Number:	ETWR 1371
Course Description:	Study of individual habits and skills necessary for employment and advancement in technical industries including preparation of technical documents, skills to ensure job readiness and the effective habits of a successful employee.
Reason/Justification for Request: (Considerations may include lack of transferability, lack of enrollment, ACGM/WECM changes, etc.) Removal of local needs course from curriculum	
Potential Impact on Certificate or Degree Programs and Teach-Out Plan Related to Course Deletion: No impact	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a core curriculum course?	• Yes
If you answered "No" above, do not answer this question. If you answered "Yes" above, identify the foundational component area.	• Communication (Core 10)

Amarillo College Curriculum Committee Form

Course Changes – Add ETWR 1302 to the Inventory

Program Division: Technical Education
Department: **Technical Core**
Program Point of Contact: **Ed Nolte, Program Coordinator, 806-335-4277**
Date of Submission: May 12, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	23.1303
Associated Study Area Identify primary program associated with course	Technical Core
Planned Effective Date:	Term: _Fall_____ Year: __2016_____
Course Title (Written Out):	Introduction to Technical Writing
Course Prefix and Number:	ETWR-1302
Course Description:	Introduction to the principles, techniques, and skills needed for scientific, technical, and business writing.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): Removal of local needs course from curriculum.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM)
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format Combination of Lecture/Lab Instruction
Is this class intended to be included in next year's core curriculum?	• No

If not a class intended for core inclusion, please list your outcomes. Otherwise, leave this table blank.

Course Outcomes for Course Not Intended for Core

1. Identify the elements of technical writing
2. State the purpose of a technical document
3. Research information
4. Prepare outlines
5. Construct technical documents using graphical elements
6. Generate reports and/or work-related documents

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Every semester
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited

Requested Information	Information Response
List any pre-requisites (prefix and number) and provide a justification	
List any co-requisites (prefix and number) and provide a justification	
Are there fees? (Yes or No) and if so, please list the fee information	$24.00
Number of semester credit hours or contact hours	3
Number of weekly lecture hours (If none, please leave blank)	2
Number of weekly lab hours (If none, please leave blank)	2
Number of weekly external hours (If none, please leave blank)	

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0501
Associated Study Area Identify primary program associated with course	Machining Technology (Precision Metalworking)
Course Title (Written Out)	Basic Machine Shop II
Course Prefix and Number	MCHN 1341
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~MCHN 1332~~ **MCHN 1338** – minimum grade of C To take courses in sequence

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0501
Associated Study Area Identify primary program associated with course	Machining Technology (Precision Metalworking)
Course Title (Written Out)	Intermediate Machining I
Course Prefix and Number	MCHN 1352
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~MCHN 1338 and~~ MCHN 1341 – minimum grade of C To take courses in sequence

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0501
Associated Study Area Identify primary program associated with course	Machining Technology (Precision Metalworking)
Course Title (Written Out)	Intermediate Machining II
Course Prefix and Number	MCHN 1354
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~MCHN 1338 and MCHN 1341~~ **MCHN 1352**– minimum grade of C To take courses in sequence

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Change in Learning Outcomes ONLY COMPLETE IF CHANGE IN OUTCOMES				
Course Name	Course Prefix	Course Number	Old Course Outcomes	New Course Outcomes

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0501
Associated Study Area Identify primary program associated with course	Machining Technology (Precision Metalworking)
Course Title (Written Out)	Fundamentals of Computer Numerical Controlled (CNC) Machine Controls
Course Prefix and Number	MCHN 2303
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. NOTE: See "Comments" for information related to many of the planned changes listed below.	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~MCHN 2341~~ **MCHN 2345**– minimum grade of C To take courses in sequence by skill

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0508
Associated Study Area Identify primary program associated with course	Nondestructive Testing & Evaluation (Precision Metalworking)
Course Title (Written Out)	Introduction to NDT
Course Prefix and Number	NDTE 1171
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~INMT 1305 and ELPT 1311~~ **INMT 1305**– minimum grade of C Basic technical skills that will be helpful to students. They do not have to have the electrical knowledge from ELPT 1311 at this time.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0508
Associated Study Area Identify primary program associated with course	Nondestructive Testing & Evaluation (Precision Metalworking)
Course Title (Written Out)	Visual Testing - Level 1 & 2
Course Prefix and Number	NDTE 1274
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~INMT 1305 and ELPT 1311~~ **INMT 1305**– minimum grade of C Basic technical skills that will be helpful to students. They do not have to have the electrical knowledge from ELPT 1311 at this time.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0508
Associated Study Area Identify primary program associated with course	Machining Technology (Precision Metalworking)
Course Title (Written Out)	Introduction to Welding Metallurgy
Course Prefix and Number	WLDG 1337
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~INMT 1305 and ELPT 1311~~ **INMT 1305**– minimum grade of C Basic technical skills that will be helpful to students. They do not have to have the electrical knowledge from ELPT 1311 at this time.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0508
Associated Study Area Identify primary program associated with course	Welding Technology (Precision Metalworking)
Course Title (Written Out)	Introduction to Arc Welding
Course Prefix and Number	WLDG 1370
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~INMT 1305 and WLDG 1373~~ **WLDG 1373**– minimum grade of C The Thermal Welding skills will be the only prerequisite skills required.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0508
Associated Study Area Identify primary program associated with course	Welding Technology (Precision Metalworking)
Course Title (Written Out)	Thermal Cutting I
Course Prefix and Number	WLDG 1373
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~ETWR 1371 and MCHN 1343~~ **INMT 1305**– minimum grade of C Basic technical skills from INMT 1305 will be the only prerequisite skills required.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0508
Associated Study Area Identify primary program associated with course	Welding Technology (Precision Metalworking)
Course Title (Written Out)	Gas Metal Arc Welding I (GMAW)
Course Prefix and Number	WLDG 1377
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~WLDG 1375~~ **WLDG 2379**~~–~~ minimum grade of C To take courses in sequence of skill.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Amarillo College Curriculum Committee Form

Course Changes – Change Current Approved Course Requirements*

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0508
Associated Study Area Identify primary program associated with course	Welding Technology (Precision Metalworking)
Course Title (Written Out)	Gas Tungsten Arc Welding I (GTAW)
Course Prefix and Number	WLDG 1378
Planned Effective Date:	Term: Fall Year: 2016

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response. **NOTE: See "Comments" for information related to many of the planned changes listed below.**	
Planned Change(s)	• Pre-requisite(s)

In this box, please provide information related to your change request and any justification. Considerations: Describe how change will benefit students, change is needed for sustainability, etc.
Prerequisite: ~~WLDG 1375~~ **WLDG 2379**– minimum grade of C To take courses in sequence of skill.

*Note: Course instructional method changes, retake policy changes, session cycle changes, yearly cycle changes can be reported directly to the Registrar's Office; these changes do not need to go through Curriculum Committee.

Manufacturing Changes

1. **Add Courses to Inventory**: DFTG 1325, MCHN 2345, NDTE 1305, NDTE 1310, NDTE 1340
2. **Delete Courses from Inventory:** NDTE 1272, NDTE 1273, NDTE 1371, NDTE 1373, WLDG 1371
3. **Description Changes** (Provided in side-by-side charts)
4. **Add Degree:** XXXX.AAS – Precision Metalworking Technology AAS Degree
5. **Add Degree:** XXXX.CERT – Precision Metalworking Technology CERT Degree
6. **Deactivate:** MCHN.CERT, NDTE.CERT, WELD.CERT.BAS because these will be combined and offered as options in the new XXXX.CERT Precision Metalworking Technology Cert.
   (see side-by-side curriculum overview charts)

   Deactivate: MCHN.CERT.BAS, WELD, CERT, WELD.MKT.CERT
   (see side-by-side curriculum overview charts)

Amarillo College Curriculum Committee Form

Course Changes – Add DFTG 1325 to the Inventory

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable):	15.1301
Associated Study Area	Precision Metalworking Technology
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Blueprint Reading and Sketching
Course Prefix and Number:	DFTG 1325
Course Description:	An introduction to reading and interpreting working drawings for fabrication processes and associated trades. Use of sketching techniques to create pictorial and multiple-view drawings.
Reason/Justification for Request: • This class serves as a focus for many occupations. It is a common skill set for all regional curriculums. Frank Philips College, Clarendon College and Austin Community College all offer this same class. • This class also takes the place of a local needs class.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM)
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format

Course Outcomes for Course Not Intended for Core

1. Interpret working drawings including dimensions, notes, symbols, sections, and auxiliary views.
2. Sketch pictorials and multi-view drawings.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Block schedules - per "cohort"
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited
List any pre-requisites (prefix and number)	
List any co-requisites (prefix and number)	
Are there fees? (Yes or No) and if so, please list the fee information	Fees to be included in block scheduling formula
Number of semester credit hours or contact hours	3 credit hours, 64 contact hours
Number of weekly lecture hours	2
Number of weekly lab hours	2
Number of weekly external hours	0

Amarillo College Curriculum Committee Form

Course Changes – Add MCHN 2345 to the Inventory

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM • WECM	48.0501
Associated Study Area	Precision Metalworking Technology
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Advanced Machining II
Course Prefix and Number:	MCHN 2345
Course Description:	Advanced milling, grinding, and lathe operations to close tolerance dimensions. Emphasis on job planning and advanced uses of precision measuring instruments.
Reason/Justification for Request: This class is an effort to get closer to advanced industry standards.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM)
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format

Course Outcomes for Course Not Intended for Core

1. Hold close tolerances on milling, lathes, and grinding operations.
2. Perform complex setups on lathes, mills, and grinders.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Block schedules – per "cohort"
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited
List any pre-requisites (prefix and number) and provide a justification	MCHN 2341 – Advanced Machining I Courses will be taken in sequence because of skills.
List any co-requisites (prefix and number) and provide a justification	
Are there fees? (Yes or No) and if so, please list the fee information	Fees to be included in block scheduling formula
Number of semester credit hours or contact hours	3 credit hours, 64 contact hours
Number of weekly lecture hours	2
Number of weekly lab hours	2
Number of weekly external hours	0

Amarillo College Curriculum Committee Form

Course Changes – Add NDTE 1305 to the Inventory

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable):	48.0508
Associated Study Area	Precision Metalworking Technology
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Introduction to Ultrasonics
Course Prefix and Number:	NDTE 1305
Course Description:	Basic theory and applications of the ultrasonic techniques of materials testing covering the theoretical material from the certification test for Ultrasonic Level I American Society of Non-Destructive Testing.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): Removal of local needs course from curriculum.	

Requested Information	Information Response
Course Type	• Workforce Education Manual (WECM)
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format

Course Outcomes for Course Not Intended for Core

1. Identify the characteristics of metal with ultrasonic tests
2. Outline the procedure for conducting ultrasonic tests
3. Conduct a straight and angle beam examination
4. Conduct an ultrasonic test on metal samples

Requested Information	Information Response
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Once per rotation
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited
List any pre-requisites (prefix and number) and provide a justification	
List any co-requisites (prefix and number) and provide a justification	NDTE 1171 and NDTE 1274 Basic NDT skills. Can be taken as pre-requisite or co-requisite.
Are there fees? (Yes or No) and if so, please list the fee information	Fees per block scheduling formula
Number of semester credit hours or contact hours	3 credit hours, 64 contact hours
Number of weekly lecture hours	2
Number of weekly lab hours	2
Number of weekly external hours	0

Amarillo College Curriculum Committee Form

Course Changes – Add NDTE 1310 to the Inventory

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable):	48.0508
Associated Study Area	Precision Metalworking Technology
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Liquid Penetrant/Magnetic Particle Testing
Course Prefix and Number:	NDTE 1310
Course Description:	A theoretical study and practical application of the non-destructive testing techniques of penetrant and magnetic particle testing required by quality assurance and test personnel.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): Removal of local needs course from curriculum.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM)
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format

Course Outcomes for Course Not Intended for Core

1. Identify and select proper materials and equipment to perform a liquid penetrant test of a weldment
2. Interpret the results of a liquid penetrant test to ascertain acceptability of the weldment
3. Demonstrate knowledge of safety precautions relative to fire and toxic hazards
4. Identify and properly select equipment used in magnetic particle testing
5. Demonstrate knowledge of the principles of magnetic particle, magnetic fields, current requirements for testing and demagnetization
6. Perform a magnetic particle examination on a weldment, following established procedures and interpret the results to ascertain acceptability of the weldment

Requested Information	Information Response
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Once per rotation
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited
List any pre-requisites (prefix and number)	
List any co-requisites (prefix and number)	NDTE 1171 and NDTE 1274 (Basic NDT skills. Can be taken as pre-requisite or co-requisite.)
Are there fees? (Yes or No)	Fees to be included in block scheduling formula
Number of semester credit/contact hrs.	3 credit hours, 64 contact hours
Number of weekly lecture hours	2
Number of weekly lab hours	2
Number of weekly external hours	0

Amarillo College Curriculum Committee Form

Course Changes – Add a New Course to the Inventory

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0508
Associated Study Area Identify primary program associated with course	Precision Metalworking Technology
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Eddy Current Testing
Course Prefix and Number:	NDTE 1340
Course Description:	General principles of Eddy Current Testing including theory, knowledge, and skills for basic examination; effects of material properties, probe types, calibration standards, and equipment selection.
Reason/Justification for Request: (Considerations may include other institutions offering the course, industry need, transferability, etc.): Removal of local needs course from curriculum.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Course Type	• Workforce Education Manual (WECM)
Instructional Method	• Lecture/Lab – Instruction delivered in face-to-face format Combination of Lecture/Lab Instruction
Is this class intended to be included in next year's core curriculum?	• No

If not a class intended for core inclusion, please list your outcomes. Otherwise, leave this table blank.
Course Outcomes for Course Not Intended for Core 1. Demonstrate discipline specific knowledge of equipment, procedures, and applications 2. Demonstrate calibration procedures 3. Evaluate the signals for a basic Eddy Current examination

If is a class intended for core inclusion, please complete this table. Otherwise, leave this table blank.	
Course Outcomes (List course outcomes)	1. 2.
For what foundational component area is the course proposed? (Delete options that do not apply) (See "core inclusion" link for details)	• Communication (Core 10) • Mathematics (Core 20) • Life and Physical Sciences (Core 30) • Language, Philosophy, and Culture (Core 40) • Creative Arts (Core 50) • American History (Core 60) • Government/Political Science (Core 70) • Social and Behavioral Science (Core 80)Component Area Option (Core 90)
What are the required THECB Objectives? (Delete options that do not apply) (See "core inclusion" link for details)	• Critical Thinking • Communication • Empirical and Quantitative Skills • Teamwork • Social Responsibility • Personal Responsibility
Identify information related to your plan to submit information showing alignment with the THECB requirements.	• Person who will submit: (name) • Date plan to submit proposal: (month, day, year)

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Is this a unique needs course?	• No
Is this a local needs course?	• No
What is the session cycle?	• Once per rotation
What is the yearly cycle?	• Every year
What is the retake policy?	• Unlimited (CoBoard will not fund more than 3 repeats of a course, but student may be allowed unlimited times)

Requested Information	Information Response
List any pre-requisites (prefix and number) and provide a justification	ELPT 1311 Basic electrical skills that are required to be successful in Eddy Current Testing
List any co-requisites (prefix and number) and provide a justification	
Are there fees? (Yes or No) and if so, please list the fee information	Fees per block scheduling formula
Number of semester credit hours or contact hours	3 credit hours, 64 contact hours
Number of weekly lecture hours (If none, please leave blank)	2
Number of weekly lab hours (If none, please leave blank)	2
Number of weekly external hours (If none, please leave blank)	0

Amarillo College Curriculum Committee Form

Course Changes – Delete NDTE 1272 from the Inventory

Program Division: Technical Education
Department: Nondestructive Testing and Evaluation
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable):	48.0508
Associated Study Area	Nondestructive Testing and Evaluation (Precision Metalworking)
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Magnetic Particle Testing – Level 1 & 2
Course Prefix and Number:	NDTE 1272
Course Description:	An introductory to intermediate level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1 & 2. Preparation for successful employment and certification in the Magnetic Particle Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting.
Reason/Justification for Request: To delete a local needs class.	
Potential Impact on Certificate or Degree Programs and Teach-Out Plan Related to Course Deletion: No impact	

Amarillo College Curriculum Committee Form

Course Changes – Delete NDTE 1273 from the Inventory

Program Division: Technical Education
Department: Nondestructive Testing and Evaluation
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable):	48.0508
Associated Study Area	Nondestructive Testing and Evaluation (Precision Metalworking)
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Liquid Penetrant Testing – Level 1 & 2
Course Prefix and Number:	NDTE 1273
Course Description:	An introductory to intermediate level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1 & 2. Preparation for successful employment and certification in the Liquid Penetrant Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting.
Reason/Justification for Request: To delete a local needs class.	
Potential Impact on Certificate or Degree Programs and Teach-Out Plan Related to Course Deletion: No impact	

Amarillo College Curriculum Committee Form

Course Changes – Delete NDTE 1371 from the Inventory

Program Division: Technical Education
Department: Nondestructive Testing and Evaluation
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable):	48.0508
Associated Study Area	Nondestructive Testing and Evaluation (Precision Metalworking)
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Ultrasonic Testing – Level 1
Course Prefix and Number:	NDTE 1371
Course Description:	An introductory level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1. Preparation for successful employment and certification in the Ultrasonic Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting.
Reason/Justification for Request: (Considerations may include lack of transferability, lack of enrollment, ACGM/WECM changes, etc.) To delete a local needs class.	
Potential Impact on Certificate or Degree Programs and Teach-Out Plan Related to Course Deletion: No impact	

Amarillo College Curriculum Committee Form

Course Changes – Delete NDTE 1373 from the Inventory

Program Division: Technical Education
Department: Nondestructive Testing and Evaluation
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): •	48.0508
Associated Study Area	Nondestructive Testing and Evaluation (Precision Metalworking)
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Electromagnetic Testing – Level 1
Course Prefix and Number:	NDTE 1373
Course Description:	An introductory level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1. Preparation for successful employment and certification in the Electromagnetic Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting.
Reason/Justification for Request: (Considerations may include lack of transferability, lack of enrollment, ACGM/WECM changes, etc.) To delete a local needs class.	
Potential Impact on Certificate or Degree Programs and Teach-Out Plan Related to Course Deletion: No impact	

Amarillo College Curriculum Committee Form

Course Changes – Delete WLDG 1371 from the Inventory

Program Division: Technical Education
Department: Welding Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable):	48.0508
Associated Study Area	Welding Technology (Precision Metalworking)
Planned Effective Date:	Term: Fall Year: 2016
Course Title (Written Out):	Welding Fundamentals
Course Prefix and Number:	WLDG 1371
Course Description:	An introduction to procedures, qualifications, and certifications. Emphasis will be on welding terminology, welding symbols and drawings; applications of welding and personal protective equipment; the application of codes to inspection, safety, and quality control; and orientation and practice of records, reports, and documentation.
Reason/Justification for Request: (Considerations may include lack of transferability, lack of enrollment, ACGM/WECM changes, etc.) Deletion of local needs class.	
Potential Impact on Certificate or Degree Programs and Teach-Out Plan Related to Course Deletion: No impact.	

Current	Proposed
~~MACHINING TECHNOLOGY~~	PRECISION METALWORKING TECHNOLOGY
	DFTG 1325 – Blueprint Reading and Sketching An introduction to reading and interpreting working drawings for fabrication processes and associated trades. Use of sketching techniques to create pictorial and multiple-view drawings. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 1332 – Bench Work and Layout Prerequisite: INMT 1305 and MCHN 1343 - minimum grade of C. An introduction to bench work and layout. Application of the use and theory of tools such as hand tools, height gages, pedestal grinders, and layout tools. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	MCHN 1332 – Bench Work and Layout Prerequisite: INMT 1305 and MCHN 1343- minimum grade of C. An introduction to bench work and layout. Application of the use and theory of tools such as hand tools, height gages, pedestal grinders, and layout tools. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 1338 – Basic Machine Shop I Prerequisite: MCHN 1332 - minimum grade of C A course that introduces the student to machining fundamentals. The student begins by using basic machine tools including the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	MCHN 1338 – Basic Machine Shop I Prerequisite:MCHN 1332 - minimum grade of C A course that introduces the student to machining fundamentals. The student begins by using basic machine tools including the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 1341 – Basic Machine Shop II Prerequisite~~: INMT 1332~~ - minimum grade of C A continuation of Basic Machine Shop I. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	MCHN 1341 – Basic Machine Shop II Prerequisite: INMT 1338 - minimum grade of C A continuation of Basic Machine Shop I. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 1352 – Intermediate Machining I Prerequisite: ~~INMT 1338 and~~ MCHN 1341 - minimum grade of C Operation of drilling machines, milling machines, lathes, and power saws. Select and use appropriate precision measuring tools. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	MCHN 1352 – Intermediate Machining I Prerequisite: MCHN 1341 - minimum grade of C Operation of drilling machines, milling machines, lathes, and power saws. Select and use appropriate precision measuring tools. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 1354 - Intermediate Machining II Prerequisite: ~~MCHN 1338 and MCHN 1341~~ - minimum grade of C Development of job process plan to include operation of lathes, milling machines, drill presses, and power saws. Set-up, layout, and tool maintenance is included. Emphasis on shop safety and preventative maintenance. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	MCHN 1354 - Intermediate Machining II Prerequisite: MCHN 1352 - minimum grade of C Development of job process plan to include operation of lathes, milling machines, drill presses, and power saws. Set-up, layout, and tool maintenance is included. Emphasis on shop safety and preventative maintenance. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 1380 - Cooperative Education-Machine Tool Technology/Machinist Prerequisite: Instructor Consent Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	MCHN 1380 - Cooperative Education-Machine Tool Technology/Machinist Prerequisite: Instructor Consent Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 1391 - Special Topics in Machining/Machine Technologist Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.	MCHN 1391 - Special Topics in Machining/Machine Technologist Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

Hours (3 Sem Hrs; 2 Lec, 2 Lab)	Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls Prerequisite: ~~MCHN 2341~~ - minimum grade of C Programming and operation of Computer Numerically Controlled (CNC) machine shop equipment. An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	MCHN 2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls Prerequisite: MCHN 2345- minimum grade of C Programming and operation of Computer Numerically Controlled (CNC) machine shop equipment. An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
MCHN 2341 - Advanced Machining I Prerequisite: MCHN 1354 - minimum grade of C A study of advanced lathe and milling operations. Emphasis on advanced cutting operations of the lathe and milling machines, including the use of special tooling, bench assembly, and materials identification. Hours (3 Sem Hrs; 2 Lec, 2 Lab)	MCHN 2341 - Advanced Machining I Prerequisite: MCHN 1354 - minimum grade of C A study of advanced lathe and milling operations. Emphasis on advanced cutting operations of the lathe and milling machines, including the use of special tooling, bench assembly, and materials identification. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
	MCHN 2345 - Advanced Machining II Prerequisite: MCHN 2341 - minimum grade of C Advanced milling, grinding, and lathe operations to close tolerance dimensions. Emphasis on job planning and advanced uses of precision measuring instruments. Hours (3 Sem Hrs; 2 Lec, 2 Lab)
WLDG 1337 – Introduction to Welding Metallurgy Prerequisite: INMT 1305 ~~and ELPT 1311~~ - minimum grade of C A study of ferrous and nonferrous metals from the ore to the finished product. Emphasis on metal alloys, heat treating, hard surfacing, welding techniques, forging, foundry processes and mechanical properties of metal including hardness, machinability and ductility. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1337 – Introduction to Welding Metallurgy Prerequisite: INMT 1305 - minimum grade of C A study of ferrous and nonferrous metals from the ore to the finished product. Emphasis on metal alloys, heat treating, hard surfacing, welding techniques, forging, foundry processes and mechanical properties of metal including hardness, machinability and ductility. Hours (3 sem hrs; 2 lec, 2 lab)
~~NONDESTRUCTIVE TESTING AND EVALUATION~~	
NDTE 1171 - Introduction to NDT Prerequisite: INMT 1305~~and ELPT 1311~~ -minimum grade of C. Introduction to the historical development and demand for nondestructive testing and evaluation methods. Emphasis on the different methods of nondestructive testing, their function and application. Hours (1 sem hrs; 1 lec)	NDTE 1171 - Introduction to NDT Prerequisite: : INMT 1305--minimum grade of C. Introduction to the historical development and demand for nondestructive testing and evaluation methods. Emphasis on the different methods of nondestructive testing, their function and application. Hours (1 sem hrs; 1 lec)
~~NDTE 1272 - Magnetic Particle Testing - Level 1 & 2~~ ~~Prerequisite: INMT 1305 and ELPT 1311 -minimum grade of C~~ ~~An introductory to intermediate level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1 & 2. Preparation for successful employment and certification in the Magnetic Particle Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting.~~ ~~Hours (2 sem hrs; 1 lec, 2 lab)~~	NDTE 1310 - Liquid Penetrant/Magnetic Particle Testing A theoretical study and practical application of the non-destructive testing techniques of penetrant and magnetic particle testing required by quality assurance and test personnel. Hours (3 sem hrs; 2 lec, 2 lab)
~~NDTE 1273 - Liquid Penetrant Testing - Level 1 & 2~~ ~~Prerequisite: INMT 1305 and ELPT 1311 -minimum grade of C~~ ~~An introductory to intermediate level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1 & 2. Preparation for successful employment and certification in the Liquid Penetrant Testing method. A theoretical study and practical~~ application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and	

evaluation and data reporting. Hours (2 sem hrs; 1 lec, 2 lab)	
NDTE 1274 - Visual Testing - Level 1 & 2 Prerequisite: INMT 1305~~ and ELPT 1311~~ -minimum grade of C An introductory to intermediate level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1 & 2. Preparation for successful employment and certification in the Visual Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting. Hours (2 sem hrs; 1 lec, 2 lab)	NDTE 1274 - Visual Testing - Level 1 & 2 Prerequisite: INMT 1305~~ -~~minimum grade of C An introductory to intermediate level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1 & 2. Preparation for successful employment and certification in the Visual Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting. Hours (2 sem hrs; 1 lec, 2 lab)
~~NDTE 1371 - Ultrasonic Testing - Level 1~~ ~~Prerequisite: INMT 1305 and ELPT 1311 -minimum grade of C~~ ~~An introductory level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1. Preparation for successful employment and certification in the Ultrasonic Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting.~~ ~~Hours (3 sem hrs; 2 lec, 2 lab)~~	NDTE 1305 – Introduction to Ultrasonics Basic theory and applications of the ultrasonic techniques of materials testing covering the theoretical material from the certification test for Ultrasonic Level 1 American Society of Non-Destructive. Hours (3 sem hrs; 2 lec, 2 lab)
~~NDTE 1373 - Electromagnetic Testing - Level 1~~ ~~Prerequisite: INMT 1305 and ELPT 1311 -minimum grade of C~~ ~~An introductory level course meeting the requirements of the American Society for Nondestructive Testing training outline for Level 1. Preparation for successful employment and certification in the Electromagnetic Testing method. A theoretical study and practical application with emphasis on industry standards, equipment calibration, process capability and limitations, indication interpretation and evaluation and data reporting.~~ ~~Hours (3 sem hrs; 2 lec, 2 lab)~~	NDTE 1340 – Eddy Current Testing Prerequisite: ELPT 1311 -minimum grade of C General principles of Eddy Current Testing including theory, knowledge, and skills for basic examination; effects of material properties, probe types, calibration standards, and equipment selection. Hours (3 sem hrs; 2 lec, 2 lab)
~~WELDING TECHNOLOGY~~	
WLDG 1307 - Introduction to Welding Using Multiple Processes An overview of the basic welding processes, including oxy-fuel welding and cutting, shielded metal arc (SMAW), gas metal arc (GMAW), and gas tungsten arc welding (GTAW). Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1307 - Introduction to Welding Using Multiple Processes An overview of the basic welding processes, including oxy-fuel welding and cutting, shielded metal arc (SMAW), gas metal arc (GMAW), and gas tungsten arc welding (GTAW). Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 1370 –Intro to Arc Welding Prerequisite: ~~INMT 1305 and~~ WLDG 1373 -minimum grade of C This course covers the theory and introduction to arc welding processes. Skill in the welding process and the selection of materials and equipment will be stressed. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1370 –Intro to Arc Welding Prerequisite: WLDG 1373 -minimum grade of C This course covers the theory and introduction to arc welding processes. Skill in the welding process and the selection of materials and equipment will be stressed. Hours (3 sem hrs; 2 lec, 2 lab)
~~WLDG 1371 - Welding Fundamentals~~ ~~Prerequisite: INMT 1305 and WLDG 1373 -minimum grade of C~~ ~~An introduction to procedures, qualifications, and certifications. Emphasis will be on welding terminology, welding symbols and drawings; applications of welding and personal protective equipment; the application of codes to inspection, safety, and quality control; and orientation and practice of records, reports, and documentation.~~ ~~Hours (3 sem hrs; 2 lec, 2 lab)~~	No Replacement
WLDG 1372 - Layout and Fabrication I Prerequisite: INMT 1305 -minimum grade of C	WLDG 1372 - Layout and Fabrication I Prerequisite: INMT 1305 -minimum grade of C

An introduction to layout as it is applied to development of patterns and drawings for the fabrication of sheet metal and structural shapes. Calculations involve joint/bend allowance and metal forming. Projects develop skills in print interpretation and the use of shears, breaks, and hand tools. Hours (3 sem hrs; 2 lec, 2 lab)	An introduction to layout as it is applied to development of patterns and drawings for the fabrication of sheet metal and structural shapes. Calculations involve joint/bend allowance and metal forming. Projects develop skills in print interpretation and the use of shears, breaks, and hand tools. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 1373 - Thermal Cutting I Prerequisite: ~~ETWR 1371 and MCHN 1343~~ -minimum grade of C Instruction and practice of equipment inspection, maintenance, repair, and set up for manual and mechanized oxyfuel gas cutting (OFC). Instruction and practice in production cuts on carbon steel using manual and mechanical oxyfuel systems. Instruction and practice soldering and brazing carbon steel, stainless steel and copper using oxyfuel equipment. Practice and production of assembly cuts to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1373 - Thermal Cutting I Prerequisite: INMT 1305 -minimum grade of C Instruction and practice of equipment inspection, maintenance, repair, and set up for manual and mechanized oxyfuel gas cutting (OFC). Instruction and practice in production cuts on carbon steel using manual and mechanical oxyfuel systems. Instruction and practice soldering and brazing carbon steel, stainless steel and copper using oxyfuel equipment. Practice and production of assembly cuts to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 1374 - Thermal Cutting II Prerequisite: WLDG 1373 -minimum grade of C Instruction and practice of equipment inspection, maintenance, repair, and set up for manual plasma arc cutting (PAC) and manual air carbon arc cutting (CAC-A). Instruction and practice in the production of cuts on carbon steel, stainless steel and aluminum using PAC equipment. Instruction and practice cutting, scarfing and gouging carbon steel using CAC-A equipment. Instruction and practice welding carbon steel using oxyfuel equipment. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1374 - Thermal Cutting II Prerequisite: WLDG 1373 -minimum grade of C Instruction and practice of equipment inspection, maintenance, repair, and set up for manual plasma arc cutting (PAC) and manual air carbon arc cutting (CAC-A). Instruction and practice in the production of cuts on carbon steel, stainless steel and aluminum using PAC equipment. Instruction and practice cutting, scarfing and gouging carbon steel using CAC-A equipment. Instruction and practice welding carbon steel using oxyfuel equipment. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 1375 - Shielded Metal Arc Welding I (SMAW) Prerequisite: WLDG 1370 -minimum grade of C Instruction and practice of equipment inspection, maintenance, repair, and set up for shielded metal arc welding. Instruction and practice in the production of fillet and groove welds in all positions on carbon steel using 6010 and 7018 electrodes. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1375 - Shielded Metal Arc Welding I (SMAW) Prerequisite: WLDG 1370 -minimum grade of C Instruction and practice of equipment inspection, maintenance, repair, and set up for shielded metal arc welding. Instruction and practice in the production of fillet and groove welds in all positions on carbon steel using 6010 and 7018 electrodes. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 1376 - Shielded Metal Arc Welding II (SMAW) Prerequisite: WLDG 1375 -minimum grade of C Continuation of WLDG 1375. Instruction and practice of equipment inspection, maintenance, repair, and set up for shielded metal arc welding. Instruction and practice in the production of fillet and groove welds in all positions on carbon steel using 6010 and 7018 electrodes. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1376 - Shielded Metal Arc Welding II (SMAW) Prerequisite: WLDG 1375 -minimum grade of C Continuation of WLDG 1375. Instruction and practice of equipment inspection, maintenance, repair, and set up for shielded metal arc welding. Instruction and practice in the production of fillet and groove welds in all positions on carbon steel using 6010 and 7018 electrodes. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 1377 - Gas Metal Arc Welding I (GMAW) Prerequisite: ~~WLDG 1375~~ – minimum grade of C Instruction and practice of equipment inspection, maintenance, repair, and set up for gas metal arc welding. Instruction and practice in the production of fillet and groove welds in all positions on carbon steel using short circuit transfer. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1377 - Gas Metal Arc Welding I (GMAW) Prerequisite: WLDG 2379 – minimum grade of C Instruction and practice of equipment inspection, maintenance, repair, and set up for gas metal arc welding. Instruction and practice in the production of fillet and groove welds in all positions on carbon steel using short circuit transfer. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 1378 - Gas Tungsten Arc Welding I (GTAW) Prerequisite: ~~WLDG 1375~~ – minimum grade of C	WLDG 1378 - Gas Tungsten Arc Welding I (GTAW) Prerequisite: WLDG 2379 – minimum grade of C

Instruction and practice of equipment inspection, maintenance, repair, and set up for gas tungsten arc welding. Instruction and practice in the production of fillet and groove welds in all positions on carbon steel, stainless steel and aluminum. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)	Instruction and practice of equipment inspection, maintenance, repair, and set up for gas tungsten arc welding. Instruction and practice in the production of fillet and groove welds in all positions on carbon steel, stainless steel and aluminum. Practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 1391 - Special Topics in Welder/Welding Technologist Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 1391 - Special Topics in Welder/Welding Technologist Prerequisite: Instructor Consent Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 2372 – Layout and Fabrication II Prerequisite: WLDG 1372 -minimum grade of C An intermediate course in layout and fabrication. Includes design and production of shop layout and fabrication. Emphasis placed on symbols, blueprints, written specifications, and pattern development. Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 2372 – Layout and Fabrication II Prerequisite: WLDG 1372 -minimum grade of C An intermediate course in layout and fabrication. Includes design and production of shop layout and fabrication. Emphasis placed on symbols, blueprints, written specifications, and pattern development. Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 2379 - Shielded Metal Arc Welding III–Pipe (SMAW) Prerequisite: WLDG 1376 -minimum grade of C An introduction to the welding of pipe using the shielded metal arc welding process. To include the selection of equipment, electrodes, and base materials. Emphasis will be placed on fit up, equipment set up, operation, and qualifications. Position of welds will be 1G, 2G, and 5G Hours (3 sem hrs; 2 lec, 2 lab)	WLDG 2379 - Shielded Metal Arc Welding III–Pipe (SMAW) Prerequisite: WLDG 1376 -minimum grade of C An introduction to the welding of pipe using the shielded metal arc welding process. To include the selection of equipment, electrodes, and base materials. Emphasis will be placed on fit up, equipment set up, operation, and qualifications. Position of welds will be 1G, 2G, and 5G Hours (3 sem hrs; 2 lec, 2 lab)
WLDG 2380 - Cooperative Education – Welding Technology/Welder Prerequisite: Instructor Consent Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 sem hrs; 1 lec, 20 lab)	WLDG 2380 - Cooperative Education – Welding Technology/Welder Prerequisite: Instructor Consent Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Hours (3 sem hrs; 1 lec, 20 lab)

Amarillo College Curriculum Committee Form

Program Changes – Add a new Precision Metalworking Technology Degree

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0501 – Machining 48.0508 – Nondestructive Testing, Welding
Associated Study Area Identify primary program associated with course	Machining, Nondestructive Testing, Welding (Precision Metalworking)
Planned Effective Date:	Term: Fall Year: 2016
Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Precision Metalworking Technology
Suggested Degree Audit Name (e.g. AERM.AAS) Internal degree audit names will come from the Office of the Registrar. They typically follow the formula: (Rubric).(degree or certificate type).(identifying information). Contact Diane Brice for assistance.	XXXX.AAS
Program Description: (See AC catalog for examples)	This curriculum allows students to obtain skills in Machining, Nondestructive Testing or Welding and be customized with classes that will enhance workplace skills. It also gives students the opportunity to gain general education credits that will lead to transfer to a four year university. **Precision Metalworking Basic Certificate must be completed prior to other classes**. Students will consult with major advisor for program entry and course electives.
Program Advisor(s) Name, Phone Number(s), and Email(s): (See AC catalog for examples)	Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).
Program Web page Link for Catalog (See AC catalog for examples)	actx.edu/xxxxxx
Reason/Justification for Request: (Considerations for adding a new major code may include industry need, transferability, etc.) (Considerations for reactivating a major code in a 3-year window include description of how it will be successful this time) Having an associate degree takes technical education beyond just skills qualifications. It is an industry recognized opportunity for supervisors, managers and inspectors. Adding the requirements of the Precision Metalworking Basic Certificate will allow students to take basic technical classes and get exposure to the technical field before they take other specific classes and have associated tool costs.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Type of Program Proposed	o AA, AS, AAT, or AAS Degree (60 SCH)

Requested Information	Information Response
Total Semester Credit Hours (SCH) (Note: If WECM, include pre-requisites per manual)	60
Length of Program in Months	24
Who is the full-time program administrator who will oversee all laws, rules, and guidelines? (Note: This administrator must hold proper credentials, have experience, and demonstrated competence in this area. Also, must have administrator in WECM areas.)	Dr. Kim Hays
What are your programs goals and intended outcomes and objectives? For this question, if you wish, you may go ahead and complete a curriculum map or you can just list the goals/outcomes you would provide on the map. (If WECM, also note how basic and workforce skills are integrated into the curriculum) Note: All major codes should have goals/outcomes that incorporate in Bloom's taxonomy verbs, general education competencies, and at least one high-impact practice.	This degree is being made of a combination of three programs already in existence. Curricula maps have been previously submitted.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Can this program be completed within two and one-half years (including pre-requisites) with full-time attendance? (Note: Students must be able to do so)	o Yes
Are current faculty properly credentialed and/or can credentialed faculty be recruited and hired? (Note: Must meet SACS-COC requirements)	o Yes
Are you planning to verify entry-level workplace competencies via a capstone experience, credentialing exam, external learning experience, or a combination? (Note: Required for WECM for last term – See "Verification of Workplace Competencies" and related requirements)	o Yes o If yes, how will you meet the requirements? Machining majors currently produce projects that lead to NIMS (National Institute of Metalworking Skills) accreditation. Welding majors have final performance tests in each advanced class to demonstrate achieved skills that are to AWS (American Welding Society) D1.1 standards.
Are state or national accrediting options, certifications, or equivalent recognitions available? (Note: Minimum WECM requirement: • Must Seek or if graduates required by accrediting body before can apply, must then apply within 12 months of first graduating class • Institutions must communicate any limitations to students due to non-accreditation of a program within 12 months)	o Yes o If yes, what are they and when will you seek them? o If yes, what are their graduation/placement standards? The Machining program is already nationally accredited through NIMS. Students have to successfully prepare four projects and pass a written exam to be accredited by NIMS.

Are students eligible to seek credentialing upon graduation without additional work experience/education unless commonly required for all applicant for the credential? (Note: For technical courses, WECM states institution must ensure this is possible)	o Yes

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
What percent of this program will be offered via distance learning?	o Less than 25%
Will this program use only existing, approved courses?	o No • If no, make sure to also submit the "Add a Course to Inventory" form with this submission

NOTE: If a new program is based on non-traditional models such as apprenticeship models, please refer to all related regulations and state submission requirements in the GIPWE.

COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

Ensure the following:

- If AAS, 50-75% is drawn from common technical specialty identified by CIP and the rest made up of 15 general education course hours and support courses (must document if more academic required due to FOS or advisory committee)
- If AAS, 3 or fewer courses can be Special Topics or Local Needs; If Level 2 certificate, 2 or fewer courses can be Special Topics or Local Needs; If Level 1 certificate, 1 or no courses can be Special Topics or Local Needs
- If AAS or CERT, all curriculum must align with licensing/accrediting authority (if applicable)
- Lecture/Lab Hours must fall into allowable contact ranges (See Table 4.1 on pg. 33 number at bottom or 37 pdf of GIPWE)
- For WECM, the course sequencing must be arranged so students cannot enroll in a course and its pre-requisite in same term unless both courses can be delivered in a compressed format without an overlap of the two courses.
- Semesters (16 weeks and shorter) should not award more than one SCH per week of instruction.

Precision Metalworking - A.A.S. **Accelerated Program - Machining Option**

XXXX.AAS

First Semester - Fall - (Basic Certificate)			Type	Lec	Lab	External	Contact	Credit
DFTG	1325	Blueprint Reading and Sketching	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
MCHN	1332	Bench Work & Layout	WECM	2	2		64	3
MCHN	1338	Basic Machine Shop I	WECM	2	2		64	3
MCHN	1341	Basic Machine Shop II	WECM	2	2		64	3
MCHN	1352	Intermediate Machining I	WECM	2	2		64	3
		Total		8	8	0	256	12
Third Semester - Summer								
MCHN	1354	Intermediate Machining II	WECM	2	2		64	3
MCHN	2341	Advanced Machining I	WECM	2	2		64	3

		Total		4	4	0	128	6
Fourth Semester - Fall								
MCHN 2345	2345	Advanced Machining II	WECM	2	2		64	3
MCHN	2303	Fundamentals of CNC	WECM	2	2		64	3
MCHN	1391	Special Topics in Machining	WECM	2	2		64	3
WLDG	1372	Layout and Fabrication I	WECM	2	2		64	3
		Total		8	8	0	256	12
Fifth Semester - Spring								
ENGL	1301	Composition I	AGCM	3	1		64	3
MATH	1332	Contemporary Mathematics 1	AGCM	3	0		48	3
SPCH	xxxx	Component Area Option	AGCM	3	0		48	3
		Social/Behavioral Science Elective	AGCM	3	0		48	3
		Language, Philosophy, Creative Arts Elective	AGCM	3	0		48	3
		Total		15	1	0	256	15
		Grand Total		45	31	0	1216	60

Precision Metalworking - A.A.S. **Nondestructive Testing Option**

XXXX.AAS

First Semester - Fall - (Basic Certificate)			Type	Lec	Lab	External	Contact	Credit
DFTG	1325	Blueprint Reading and Sketching	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
NDTE	1171	Introduction to NDT	WECM	1	0		16	1
NDTE	1274	Visual Testing - Level 1 & 2	WECM	1	2		48	2
WLDG	1372	Layout & Fabrication I	WECM	2	2		64	3
		Elective	WECM	2	2		64	3
		Total		8	8	0	256	12
Third Semester - Summer								
NDTE	1310	Liquid Penetrant/Magnetic Particle Testing	WECM	2	2		64	3
NDTE	1340	Eddy Current Testing	WECM	2	2		64	3
		Total		4	4	0	128	6

Fourth Semester - Fall								
NDTE	1305	Introduction to Ultrasonics	WECM	2	2		64	3
WLDG	2372	Layout & Fabrication II	WECM	2	2		64	3
MATH	1332	Contemporary Mathematics 1	AGCM	3	0		48	3
		Elective	WECM	2	2		64	3
		Elective	WECM	2	2		64	3
		Total		11	8	0	304	15
Fifth Semester - Spring								
ENGL	1301	Composition I	AGCM	3	1		64	3
SPCH	xxxx	Component Area Option	AGCM	3	0		48	3
		Social/Behavioral Science Elective	AGCM	3	0		48	3
		Language, Philosophy, Creative Arts Elective	AGCM	3	0		48	3
		Total		12	1	0	208	12
		Grand Total		45	31	0	1216	60

Precision Metalworking - A.A.S. **Accelerated Program - Welding Option**

XXXX.AAS

First Semester - Fall - (Basic Certificate)			Type	Lec	Lab	External	Contact	Credit
DFTG	1325	Blueprint Reading and Sketching	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
WLDG	1372	Layout & Fabrication I	WECM	2	2		64	3
WLDG	1373	Thermal Cutting I	WECM	2	2		64	3
WLDG	1370	Introduction to Arc Welding	WECM	2	2		64	3
WLDG	1375	SMAW I	WECM	2	2		64	3
		Total		8	8	0	256	12
Third Semester - Summer								
WLDG	1376	SMAW II	WECM	2	2		64	3
WLDG	2379	SMAW III	WECM	2	2		64	3
		Total		4	4	0	128	6
Fourth Semester - Fall								
WLDG	1377	MIG	WECM	2	2		64	3
WLDG	1378	TIG	WECM	2	2		64	3

WLDG	2372	Layout & Fabrication II	WECM	2	2		64	3
		Elective	WECM	2	2		64	3
		Total		8	8	0	256	12
Fifth Semester - Spring								
ENGL	1301	Composition I	AGCM	3	1		64	3
MATH	1332	Contemporary Mathematics 1	AGCM	3	0		48	3
SPCH	xxxx	Component Area Option	AGCM	3	0		48	3
		Social/Behavioral Science Elective	AGCM	3	0		48	3
		Language, Philosophy, Creative Arts Elective	AGCM	3	0		48	3
		Total		15	1	0	256	15
		Grand Total		45	31	0	1216	60

PRECISION METALWORKING TECHNOLOGY

Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).

Associate In Applied Science
Major Code – XXXX.AAS
actx.edu/xxxxx

This curriculum allows students to obtain skills in Machining, Nondestructive Testing or Welding and be customized with classes that will enhance workplace skills. It also gives students the opportunity to gain general education credits that will lead to transfer to a four year university. **Precision Metalworking Basic Certificate must be completed prior to other classes**. Students will consult with major advisor for program entry and course electives.

General Education Requirements (15 Semester Hours)

Communication – 3 Hours
ENGL 1301 - Composition I
Social/Behavioral Science* - 3 Hours
Life & Physical Sciences* Or Mathematics* - 3 Hours
MATH 1332 - Contemporary Mathematics 1
(or any college level Mathematics course)
Language, Philosophy & Culture* Or Creative Arts* - 3 Hours
Component Area Option – 3 Hours
Speech (Communication foundational component area)
Or
EDUC 1300 – First Year Seminar
* As specified in individual curricula or selected from the General Education Course List.

Precision Metalworking Basic Certificate (15 Semester Hours)

Major Course Options (21-30 Semester Hours)

The student must choose one of the following specialties

Machinist (30 Semester Hours)

MCHN 1332 – Bench Work and Layout
MCHN 1338 – Basic Machine Shop I
MCHN 1341 – Basic Machine Shop II
MCHN 1352 – Intermediate Machining I
MCHN 1354 - Intermediate Machining II
MCHN 1391 – Special Topics in Machining
MCHN 2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls
MCHN 2341 - Advanced Machining I
MCHN 2345 – Advanced Machining II
WLDG 1372 – Layout and Fabrication I

Nondestructive Testing (21 Semester Hours)

ELPT 1311 – Basic Electrical Theory
NDTE 1171 – Introduction to NDT
NDTE 1274 - Visual Testing - Level 1 & 2
NDTE 1305 – Introduction to Ultrasonics

NDTE 1310 - Liquid Penetrant/Magnetic Particle Testing
NDTE 1340 – Eddy Current Testing
WLDG 1372 - Layout and Fabrication I
WLDG 2372 – Layout and Fabrication II

Welding (27 Semester Hours)
WLDG 1370 – Introduction to Arc Welding
WLDG 1372 - Layout and Fabrication I
WLDG 1373 – Thermal Cutting I
WLDG 1375 - Shielded Metal Arc Welding I (SMAW)
WLDG 1376 - Shielded Metal Arc Welding II (SMAW)
WLDG 1377 - Gas Metal Arc Welding I (GMAW)
WLDG 1378 - Gas Tungsten Arc Welding I (GTAW)
WLDG 2372 – Layout and Fabrication II
WLDG 2379 - Shielded Metal Arc Welding III Pipe (SMAW)

Recommended Courses (9-3 Semester Hours)
Major advisor will assist student in selection of appropriate courses as determined by individual career goals.

Total (60 Semester Hours)

Course Sequencing and Requirements Notes:

Accelerated Block Scheduling – Each program is conducted as a "cohort". Students will have to communicate with major advisor for entry requirements, scheduling and electives.

BRAND NEW PROGRAM SECTION
(See pages 35-40 of GIPWE)

SECTION 1 – NEED TO DETERMINE IF NEW PROGRAM BASED ON THECB DEFINITIONS	
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Does this major code represent a significant departure in content, credential level, or location from those current offered?	o No
Does your major code meet one of the following criteria? o Create certificate (including technical certificate or Field of Study certificate) or an AAS in a program for which the college currently has no offerings on its inventory o Create a certificate in a program that has been deactivated for over three years o Create an associate degree in a program in which the college currently only offers a certificate?	o Yes Creating an associate degree that will be made from a combination of three existing programs.

SECTION 2 – ANSWER THE REMAINING QUESTIONS ONLY IF YOU ANSWERED "YES" TO EITHER QUESTION IN SECTION 1. OTHERWISE, YOU HAVE COMPLETED AND MAY SUBMIT THIS FORM.

Notes:
- o If we currently have programs that do not have this information on file (based on the above definitions), we need to collect it because we must be able to present this information in case of an audit.
- o Sequence offerings of workforce continuing education courses for which the total is 360 or more should also keep this information on file.

Requested Information	Information Response
Are you under a corrective action plan for related program areas?	o No

NEW PROGRAM – Part A – Documentation of Workforce Demand for the Program Note: Director of IE will complete Step #1 – Letter of Intent to Higher Education Regional Councils	
Requested Information	**Information Response**
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Identify the workforce demand for this major (identify the 2 or more required reasons why the program is needed AND provide information demonstrating need. (See GIPWE Chapter 3 and Chapter 5, B, 2a) Note: Links to data sources form the Texas Workforce Commission are available here.	Reasons for new program (select/justify 2 or more) o (2) Prepare students for an occupation that is on the list of targeted, high demand, or priority occupations on the institution's Local Workforce Development Board website; o (7) Offer a program for an occupation listed in the Occupational Information Network (O*NET); or **JUSTIFICATIONS** **(Note: You may also attach support materials)** **REASON 1 JUSTIFICATION:** **REASON 2 JUSTIFICATION:**

NEW PROGRAM – Part B – Assurance of Basic and Workforce Skills	
Requested Information	**Information Response**
How did you form and how will you evaluate your program competencies (please include attachments as necessary)? (See GIPWE Chapter 3 and Chapter 5, B, 2b) Notes: • Must demonstrate academic skills, workforce skills, knowledge, and abilities for employment • THECB suggests hand-on experience opportunities be made available • Can use TSSB, Program Competency Profile, DWA CAP, DACUM, SCANS, etc. to ensure competency, but must show program can address and master competencies.	All competencies are currently in place.
How will developmental education courses be made available to be taken prior or in conjunction with curriculum for students with academic skill deficiencies? Notes: See GIPWE "Developmental Education Courses" and/or TSI regulations	Developmental education is already in place.
How will career development opportunities be made available to students? (See GIPWE "Career Development Personnel")	Career development opportunities are already in place.
If this program has career development personnel associated with career guidance/counseling or paraprofessional to assist with job placement, are they properly credentialed or will people who are properly credentialed be recruited and hired? (See GIPWE "Career Development Personnel") Notes: • Career Development Personnel must meet SACS-COC standards and have a master's degree in counseling or a closely related field OR a master's degree with significant coursework or experience in career development; in exceptional cases, outstanding professional experience and competency may substitute. • Paraprofessionals – Must demonstrate academic preparation and experience consistent with assignment	Career Development Personnel are already in place.

NEW PROGRAM – Part C – Enrollment Management Plan	
Requested Information	**Information Response**
Provide program-specific enrollment management Plan information (SEE GIPWE Chapter 5, B, 2c)	1. Identify articulated feeder institutions and programs (e.g. high school offering dual credit courses) Caprock and Palo Duro High Schools are currently offering metalworking programs for dual credit courses. 2. Identify your strategy for enrollment projection that includes student recruitment and program marketing Industry relations 3. Identify a plan that specifies activities for access, recruitment, retention, and placement of students for special populations. The Women in Industry program 4. (If applicable) Identify a history of enrollment in related continuing education/workforce education courses. There are currently 50 on our waiting list for the next semester. 5. Projected enrollment (including the anticipated number of majors) for first year of program operation. 10

	6. Anticipated annual enrollment after first year. 10 7. Once fully implemented, anticipated annual graduation rate. 8

NEW PROGRAM – Part D – Program Linkages and Demonstration of Non-Duplication	
Requested Information	**Information Response**
What are the program linkages? (See GIPWE Chapter 3 and Chapter 5, B, 2d) Notes: Program linkages are arrangements that facilitate the transfer of courses or course credits and promote seamless educational pathways. Linkages may be demonstrated by articulation agreements that provide students transfer, inverted degree plans, and advance standing opportunities. 1) Identify similar workforce education programs and related training programs in region/service area. Assistive data are available at the Coordinating Board's Texas Higher Education Data Web site 2) Include documentation that contact has been made with appropriate institutional administrators to initiate program-specific articulation 3) Include a timeline for the formal initiation of these linkages 4) Include a statement specifying the form(s) of program linkage(s) that will be initiated (e.g. articulation agreements, programs of study, dual credit; Advanced Technical Credit) Considerations: A) If a certificate program, does this provide progression toward an AAS degree? If an AA/AS/etc. does this provide progression toward a bachelor's degree? B) If a degree intended for transfer, when/how will linkages to transfer institutions be made?	Already in place
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Are there similar workforce education programs in the region/service area (i.e. 50 miles of proposed program location)?	o No accelerated programs

NEW PROGRAM – Part E – External Agency Approval, Certification, or Accreditation	
Requested Information	**Information Response**
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Are state or national accrediting options, certifications, or equivalent recognitions available? (See Coordinating Board Rules Chapter 9, Subchapter G) (See GIPWE Chapter 3 and Chapter 5, B, 2e) (Note: Minimum WECM requirement: • Must Seek or if graduates required by accrediting body before can apply, must then apply within 12 months of first graduating class • Institutions must communicate any limitations to students due to non-accreditation of a program within 12 months)	o Yes o If yes, what are they and when will you seek them The Machining program is already nationally accredited through NIMS (National Institute of Metalworking Skills. o If yes, what are the graduation/placement standards? 4 NIMS certificates
Are you planning to apply for program recognition from the Texas Skills Standards Board (TSSB)?	o No

NEW PROGRAM – Part F – Determining Adequate Funding	
Requested Information	**Information Response**
Please estimate the faculty needed to serve the program. (See GIPWE Chapter 3 and Chapter 5, B, 2f) Notes: FACULTY (See GIPWE Chpt. 2 for more information) Associate's Degree – 1 FT faculty primarily teaching within program Certificate Degree – 1 FT coordinator in technical area (not necessarily FT to program) and 1 PT member in area)	Current faculty is already in place. This award will add no extra faculty. # of FT faculty: 4 # of PT faculty: 2

NEW PROGRAM – Part F – Determining Adequate Funding Continued	
What facilities, classroom, and/or laboratory space will support the number of students projected to enroll? Explain if these facilities are New/Renovated or Existing.	
Facilities	New/Renovated or Existing?
	Will use all existing facilities

NEW PROGRAM – Part F – Determining Adequate Funding	
Requested Information	**Information Response**
Please provide a general list of the required equipment Notes: You can include items such as possible donations in your response.	**NEW EQUIPMENT NAME AND ESTIMATED COSTS** **Already have all existing equipment up to industry standards. No new equipment will be required for this award.** **EXISTING EQUIPMENT AND NOTE IF UP TO INDUSTRY STANDARDS**

NEW PROGRAM – Part F – Determining Adequate Funding Continued	
First-Year Upfront Cost/Income Projections	
Total New Cost for Program:	Existing budgets from all three individual programs are sufficient.
Projected Tuition/Fees:	
Projected Local Funding:	
Projected State Funding:	
Projected Business Support:	
Projected Other Support: Please Specify:_____	
Total Projected Income:	
Comments on 1st-Year Budget	

NEW PROGRAM – Part F – Determining Adequate Funding Continued	
Five-Year Cost and Revenue Projections	
Cost Projection:	
Revenue Projection:	
Total Income Projection:	
Comments on 5-Year Budget	

NEW PROGRAM – Part G – Advisory Committee Minutes	
Requested Information	**Information Response**
How have Business and Industry partners and Advisory Committees provided feedback on this program and how will they do so in the future? (Please attach 2 or more advisory meetings demonstrating support) (See GIPWE Chapter 3 and Chapter 5, B, 2g) Notes: • Must establish advisory committee for each workforce ed. Program. • Existing programs must meet one time per year with quorum • Meeting minutes must be maintained and available upon request • During development of new programs – committee must meet in person twice and communicate consistently; At least 2 meeting minutes should clearly document support prior to new program application	

Amarillo College Curriculum Committee Form

Program Changes – Add New Precision Metalworking Technology XXXX.CERT Cert.

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0501 – Machining 48.0508 – Nondestructive Testing, Welding
Associated Study Area Identify primary program associated with course	Machining, Nondestructive Testing, Welding (Precision Metalworking)
Planned Effective Date:	Term: Fall Year: 2016
Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Precision Metalworking Technology
Suggested Degree Audit Name (e.g. AERM.AAS) Internal degree audit names will come from the Office of the Registrar. They typically follow the formula: (Rubric).(degree or certificate type).(identifying information). Contact Diane Brice for assistance.	XXXX.CERT
Program Description: (See AC catalog for examples)	This curriculum prepares students for entry level positions in the Machining, Nondestructive Testing or Welding career fields. **Precision Metalworking Basic Certificate must be completed prior to other classes**. Students will consult with major advisor for program entry.
Program Advisor(s) Name, Phone Number(s), and Email(s): (See AC catalog for examples)	Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).
Program Web page Link for Catalog (See AC catalog for examples)	actx.edu/xxxxxx
Reason/Justification for Request: (Considerations for adding a new major code may include industry need, transferability, etc.) (Considerations for reactivating a major code in a 3-year window include description of how it will be successful this time) This certificate will build on related skill groups, share initial courses and strengthens industry qualification opportunities. Adding the requirements of the Precision Metalworking Basic Certificate will allow students to take basic technical classes and get exposure to the technical field before they take other specific classes and have associated tool costs.	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Type of Program Proposed	o Level 2 Certificate (30-51 SCH) Subject to TSI and entry requirements

Requested Information	Information Response
Total Semester Credit Hours (SCH) (Note: If WECM, include pre-requisites per manual)	36-45
Length of Program in Months	7-18 (lower number for accelerated scheduling)
Who is the full-time program administrator who will oversee all laws, rules, and guidelines? (Note: This administrator must hold proper credentials, have experience, and demonstrated competence in this area. Also, must have administrator in WECM areas.)	Dr. Kim Hays
What are your programs goals and intended outcomes and objectives? For this question, if you wish, you may go ahead and complete a curriculum map or you can just list the goals/outcomes you would provide on the map. (If WECM, also note how basic and workforce skills are integrated into the curriculum) Note: All major codes should have goals/outcomes that incorporate in Bloom's taxonomy verbs, general education competencies, and at least one high-impact practice.	This certificate is being made of a combination of three programs already in existence. Curricula maps have been previously submitted.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Can this program be completed within two and one-half years (including pre-requisites) with full-time attendance? (Note: Students must be able to do so)	o Yes
Are current faculty properly credentialed and/or can credentialed faculty be recruited and hired? (Note: Must meet SACS-COC requirements)	o Yes
Are you planning to verify entry-level workplace competencies via a capstone experience, credentialing exam, external learning experience, or a combination? (Note: Required for WECM for last term – See "Verification of Workplace Competencies" and related requirements)	o Yes o If yes, how will you meet the requirements? Machining majors currently produce projects that lead to NIMS (National Institute of Metalworking Skills) accreditation. Welding majors have final performance tests in each advanced class to demonstrate achieved skills that are to AWS (American Welding Society) D1.1 standards.
Are state or national accrediting options, certifications, or equivalent recognitions available? (Note: Minimum WECM requirement: • Must Seek or if graduates required by accrediting body before can apply, must then apply within 12 months of first graduating class • Institutions must communicate any limitations to students due to non-accreditation of a program within 12 months)	o Yes o If yes, what are they and when will you seek them? o If yes, what are their graduation/placement standards? The Machining program is already nationally accredited through NIMS. Students have to successfully prepare four projects and pass a written exam to be accredited by NIMS.

Are students eligible to seek credentialing upon graduation without additional work experience/education unless commonly required for all applicant for the credential? (Note: For technical courses, WECM states institution must ensure this is possible)	o Yes

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
What percent of this program will be offered via distance learning?	o Less than 25%
Will this program use only existing, approved courses?	o No • If no, make sure to also submit the "Add a Course to Inventory" form with this submission

NOTE: If a new program is based on non-traditional models such as apprenticeship models, please refer to all related regulations and state submission requirements in the GIPWE.

COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

Ensure the following:

- If AAS, 50-75% is drawn from common technical specialty identified by CIP and the rest made up of 15 general education course hours and support courses (must document if more academic required due to FOS or advisory committee)
- If AAS, 3 or fewer courses can be Special Topics or Local Needs; If Level 2 certificate, 2 or fewer courses can be Special Topics or Local Needs; If Level 1 certificate, 1 or no courses can be Special Topics or Local Needs
- If AAS or CERT, all curriculum must align with licensing/accrediting authority (if applicable)
- Lecture/Lab Hours must fall into allowable contact ranges (See Table 4.1 on pg. 33 number at bottom or 37 pdf of GIPWE)
- For WECM, the course sequencing must be arranged so students cannot enroll in a course and its pre-requisite in same term unless both courses can be delivered in a compressed format without an overlap of the two courses.
- Semesters (16 weeks and shorter) should not award more than one SCH per week of instruction.

Precision Metalworking Advanced Certificate **Accelerated Program - Machining Option**

XXXX.CERT

First Semester - Fall - (Basic Certificate)			Type	Lec	Lab	External	Contact	Credit
DFTG	1325	Blueprint Reading and Sketching	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
MCHN	1332	Bench Work & Layout	WECM	2	2		64	3
MCHN	1338	Basic Machine Shop I	WECM	2	2		64	3
MCHN	1341	Basic Machine Shop II	WECM	2	2		64	3
MCHN	1352	Intermediate Machining I	WECM	2	2		64	3
		Total		8	8	0	256	12

Third Semester - Summer								
MCHN	1354	Intermediate Machining II	WECM	2	2		64	3
MCHN	2341	Advanced Machining I	WECM	2	2		64	3
		Total		4	4	0	128	6
Fourth Semester - Fall								
MCHN 2345	2345	Advanced Machining II	WECM	2	2		64	3
MCHN	2303	Fundamentals of CNC	WECM	2	2		64	3
MCHN	1391	Special Topics in Machining	WECM	2	2		64	3
WLDG	1372	Layout and Fabrication I	WECM	2	2		64	3
		Total		8	8	0	256	12
		Grand Total		30	30	0	960	45

Precision Metalworking Advanced Certificate **Nondestructive Testing Option**

XXXX.CERT

First Semester - Fall - (Basic Certificate)			Type	Lec	Lab	External	Contact	Credit
DFTG	1325	Blueprint Reading and Sketching	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
		Total		10	10	0	320	15
Second Semester - Spring								
ELPT	1311	Basic Electrical Theory	WECM	2	2		64	3
NDTE	1171	Introduction to NDT	WECM	1	0		16	1
NDTE	1274	Visual Testing - Level 1 & 2	WECM	1	2		48	2
WLDG	1372	Layout & Fabrication I	WECM	2	2		64	3
		Total		6	6	0	192	9
Third Semester - Summer								
NDTE	1310	Liquid Penetrant/Magnetic Particle Testing	WECM	2	2		64	3
NDTE	1340	Eddy Current Testing	WECM	2	2		64	3
		Total		4	4	0	128	6
Fourth Semester - Fall								
NDTE	1305	Introduction to Ultrasonics	WECM	2	2		64	3
WLDG	2372	Layout & Fabrication II	WECM	2	2		64	3
		Total		4	4	0	128	6
		Grand Total		24	24	0	768	36

Precision Metalworking Advanced Certificate **Accelerated Program - Welding Option**
XXXX.CERT

First Semester - Fall - (Basic Certificate)			Type	Lec	Lab	External	Contact	Credit
DFTG	1325	Blueprint Reading and Sketching	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
		Total		10	10		320	15
Second Semester - Spring								
WLDG	1372	Layout & Fabrication I	WECM	2	2		64	3
WLDG	1373	Thermal Cutting I	WECM	2	2		64	3
WLDG	1370	Introduction to Arc Welding	WECM	2	2		64	3
WLDG	1375	SMAW I	WECM	2	2		64	3
		Total		8	8	0	256	12
Third Semester - Summer								
WLDG	1376	SMAW II	WECM	2	2		64	3
WLDG	2379	SMAW III	WECM	2	2		64	3
		Total		4	4	0	128	6
Fourth Semester - Fall								
WLDG	1377	MIG	WECM	2	2		64	3
WLDG	1378	TIG	WECM	2	2		64	3
WLDG	2372	Layout & Fabrication II	WECM	2	2		64	3
		Total		6	6	0	192	9
		Grand Total		28	28	0	896	42

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

PRECISION METALWORKING TECHNOLOGY

Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Advanced Certificate of Completion
Major Code – XXXX.CERT
actx.edu/xxxxxx
This curriculum prepares students for entry level positions in the Machining, Nondestructive Testing or Welding career fields. **Precision Metalworking Basic Certificate must be completed prior to other classes**. Students will consult with major advisor for program entry.

Precision Metalworking Basic Certificate (15 Semester Hours)

Major Course Options (21-30 Semester Hours)
The student must choose one of the following specialties

Machinist (30 Semester Hours)
MCHN 1332 – Bench Work and Layout
MCHN 1338 – Basic Machine Shop I
MCHN 1341 – Basic Machine Shop II
MCHN 1352 – Intermediate Machining I
MCHN 1354 - Intermediate Machining II
MCHN 1391 – Special Topics in Machining
MCHN 2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls
MCHN 2341 - Advanced Machining I
MCHN 2345 – Advanced Machining II
WLDG 1372 – Layout and Fabrication I

Nondestructive Testing (21 Semester Hours)
ELPT 1311 – Basic Electrical Theory
NDTE 1171 – Introduction to NDT
NDTE 1274 - Visual Testing - Level 1 & 2
NDTE 1305 – Introduction to Ultrasonics
NDTE 1310 - Liquid Penetrant/Magnetic Particle Testing
NDTE 1340 – Eddy Current Testing
WLDG 1372 - Layout and Fabrication I
WLDG 2372 – Layout and Fabrication II

Welding (27 Semester Hours)
WLDG 1370 – Introduction to Arc Welding
WLDG 1372 - Layout and Fabrication I
WLDG 1373 – Thermal Cutting I
WLDG 1375 - Shielded Metal Arc Welding I (SMAW)
WLDG 1376 - Shielded Metal Arc Welding II (SMAW)

WLDG 1377 - Gas Metal Arc Welding I (GMAW)
WLDG 1378 - Gas Tungsten Arc Welding I (GTAW)
WLDG 2372 – Layout and Fabrication II
WLDG 2379 - Shielded Metal Arc Welding III Pipe (SMAW)

Total (36-45 Semester Hours)

Course Sequencing and Requirements Notes:
Accelerated Block Scheduling – Each program is conducted as a "cohort". Students will have to communicate with major advisor for entry requirements and scheduling.

NOTE: For "BRAND NEW PROGRAM SECTION" please see Associate degree documentation.

Amarillo College Curriculum Committee Form

Program Changes – Add Precision Metalworking Technology XXXX.CERT.BAS degree

Program Division: Technical Education
Department: Precision Metalworking Technology
Program Point of Contact: Dr. Kim Hays, Department Chair, 806-335-4366
Date of Submission: May 13, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	48.0501 – Machining 48.0508 – Nondestructive Testing, Welding
Associated Study Area Identify primary program associated with course	Machining, Nondestructive Testing, Welding (Precision Metalworking)
Planned Effective Date:	Term: Fall Year: 2016
Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Precision Metalworking Technology
Suggested Degree Audit Name (e.g. AERM.AAS) Internal degree audit names will come from the Office of the Registrar. They typically follow the formula: (Rubric).(degree or certificate type).(identifying information). Contact Diane Brice for assistance.	XXXX.CERT.BAS
Program Description: (See AC catalog for examples)	This certificate creates the foundation for higher level Precision Metalworking awards. **It must be completed prior to other classes**.
Program Advisor(s) Name, Phone Number(s), and Email(s): (See AC catalog for examples)	Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).
Program Web page Link for Catalog (See AC catalog for examples)	actx.edu/xxxxxx

Reason/Justification for Request:
(Considerations for adding a new major code may include industry need, transferability, etc.)
(Considerations for reactivating a major code in a 3-year window include description of how it will be successful this time)

This certificate will provide beginning level related skill groups, share initial courses and strengthens industry qualification opportunities.
Adding the requirements of the Precision Metalworking Basic Certificate will allow students to take basic technical classes and get exposure to the technical field before they take other specific classes and have associated tool costs.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Type of Program Proposed	o Level 1 Certificate (15-42 SCH) Can be completed in 1-year or less TSI/Assessment exams not required

Requested Information	Information Response
Total Semester Credit Hours (SCH) (Note: If WECM, include pre-requisites per manual)	15
Length of Program in Months	4-5
Who is the full-time program administrator who will oversee all laws, rules, and guidelines? (Note: This administrator must hold proper credentials, have experience, and demonstrated competence in this area. Also, must have administrator in WECM areas.)	Dr. Kim Hays
What are your programs goals and intended outcomes and objectives? For this question, if you wish, you may go ahead and complete a curriculum map or you can just list the goals/outcomes you would provide on the map. (If WECM, also note how basic and workforce skills are integrated into the curriculum) Note: All major codes should have goals/outcomes that incorporate in Bloom's taxonomy verbs, general education competencies, and at least one high-impact practice.	This certificate is being made to give students basic skills and prepare them for higher level awards. It is made from classes already in existence. Curricula maps have been previously submitted.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Can this program be completed within two and one-half years (including pre-requisites) with full-time attendance? (Note: Students must be able to do so)	o Yes
Are current faculty properly credentialed and/or can credentialed faculty be recruited and hired? (Note: Must meet SACS-COC requirements)	o Yes
Are you planning to verify entry-level workplace competencies via a capstone experience, credentialing exam, external learning experience, or a combination? (Note: Required for WECM for last term – See "Verification of Workplace Competencies" and related requirements)	o Yes o If yes, how will you meet the requirements? This certificate is a foundation for higher awards which do have capstone experiences available. Machining majors currently produce projects that lead to NIMS (National Institute of Metalworking Skills) accreditation. Welding majors have final performance tests in each advanced class to demonstrate achieved skills that are to AWS (American Welding Society) D1.1 standards.

Are state or national accrediting options, certifications, or equivalent recognitions available? (Note: Minimum WECM requirement: • Must Seek or if graduates required by accrediting body before can apply, must then apply within 12 months of first graduating class • Institutions must communicate any limitations to students due to non-accreditation of a program within 12 months)	o Yes o If yes, what are they and when will you seek them? o If yes, what are their graduation/placement standards? This certificate is a foundation for higher awards which do have accreditation available. The Machining program is already nationally accredited through NIMS. Students have to successfully prepare four projects and pass a written exam to be accredited by NIMS.
Are students eligible to seek credentialing upon graduation without additional work experience/education unless commonly required for all applicant for the credential? (Note: For technical courses, WECM states institution must ensure this is possible)	o No Not from this basic certificate

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
What percent of this program will be offered via distance learning?	o Less than 25%
Will this program use only existing, approved courses?	o Yes

NOTE: If a new program is based on non-traditional models such as apprenticeship models, please refer to all related regulations and state submission requirements in the GIPWE.

COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

Ensure the following:

- If AAS, 50-75% is drawn from common technical specialty identified by CIP and the rest made up of 15 general education course hours and support courses (must document if more academic required due to FOS or advisory committee)
- If AAS, 3 or fewer courses can be Special Topics or Local Needs; If Level 2 certificate, 2 or fewer courses can be Special Topics or Local Needs; If Level 1 certificate, 1 or no courses can be Special Topics or Local Needs
- If AAS or CERT, all curriculum must align with licensing/accrediting authority (if applicable)
- Lecture/Lab Hours must fall into allowable contact ranges (See Table 4.1 on pg. 33 number at bottom or 37 pdf of GIPWE)
- For WECM, the course sequencing must be arranged so students cannot enroll in a course and its pre-requisite in same term unless both courses can be delivered in a compressed format without an overlap of the two courses.
- Semesters (16 weeks and shorter) should not award more than one SCH per week of instruction.

Precision Metalworking Basic Certificate

XXXX.CERT.BAS

First Semester - Fall			Type	Lec	Lab	External	Contact	Credit
DFTG	1325	Blueprint Reading and Sketching	WECM	2	2		64	3
ETWR	1302	Introduction to Technical Writing	WECM	2	2		64	3
INMT	1305	Introduction to Industrial Maintenance	WECM	2	2		64	3
MCHN	1343	Machine Shop Mathematics	WECM	2	2		64	3
WLDG	1307	Intro to Welding Using Multiple Processes	WECM	2	2		64	3
		Total		10	10	0	320	15
		Grand Total		10	10	0	320	15

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

PRECISION METALWORKING TECHNOLOGY

Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Basic Certificate of Completion
Major Code – XXXX.CERT.BAS
actx.edu/xxxxxx

This certificate creates the foundation for higher level Precision Metalworking awards. **It must be completed prior to other classes**.

Precision Metalworking Basic Certificate (15 Semester Hours)
DFTG 1325 – Blueprint Reading and Sketching
ETWR 1302 – Introduction to Technical Writing
INMT 1305 – Introduction to Industrial Maintenance
MCHN 1343 – Machine Shop Mathematics
WLDG 1307 – Introduction to Welding Using Multiple Processes
Total (15 Semester Hours)

Course Sequencing and Requirements Notes:
Accelerated Block Scheduling – Each program is conducted as a "cohort". This basic certificate will have to be completed prior to other Precision Metalworking awards. Students will have to communicate with major advisor for entry requirements and scheduling.

NOTE: For "BRAND NEW PROGRAM SECTION" please see Associate degree documentation.

No previous award New Major Code	PRECISION METALWORKING TECHNOLOGY Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu). Associate In Applied Science Major Code – XXXX.AAS *actx.edu/welding* This curriculum allows students to obtain skills in Machining, Nondestructive Testing or Welding and be customized with classes that will enhance workplace skills. It also gives students the opportunity to gain general education credits that will lead to transfer to a four year university. Precision Metalworking Basic Certificate must be completed prior to other classes. Students will consult with major advisor for program entry and course electives. General Education Requirements (15 Semester Hours) Communication – 3 Hours ENGL 1301 - Composition I Social/Behavioral Science* - 3 Hours Life & Physical Sciences* Or Mathematics* - 3 Hours MATH 1332 - Contemporary Mathematics 1 (or any college level Mathematics course) Language, Philosophy & Culture* Or Creative Arts* - 3 Hours Component Area Option – 3 Hours Speech (Communication foundational component area) Or EDUC 1300 – First Year Seminar * As specified in individual curricula or selected from the General Education Course List. Precision Metalworking Basic Certificate (15 Semester Hours) Major Course Options (21-30 Semester Hours) The student must choose one of the following specialties Machinist (30 Semester Hours) MCHN 1332 – Bench Work and Layout MCHN 1338 – Basic Machine Shop I MCHN 1341 – Basic Machine Shop II MCHN 1352 – Intermediate Machining I MCHN 1354 - Intermediate Machining II MCHN 1391 – Special Topics in Machining MCHN 2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls MCHN 2341 - Advanced Machining I MCHN 2345 – Advanced Machining II WLDG 1372 – Layout and Fabrication I Nondestructive Testing (21 Semester Hours) ELPT 1311 – Basic Electrical Theory NDTE 1171 – Introduction to NDT NDTE 1274 - Visual Testing - Level 1 & 2 NDTE 1305 – Introduction to Ultrasonics NDTE 1310 - Liquid Penetrant/Magnetic Particle Testing NDTE 1340 – Eddy Current Testing WLDG 1372 - Layout and Fabrication I WLDG 2372 – Layout and Fabrication II

	Welding (27 Semester Hours) WLDG 1370 – Introduction to Arc Welding WLDG 1372 - Layout and Fabrication I WLDG 1373 – Thermal Cutting I WLDG 1375 - Shielded Metal Arc Welding I (SMAW) WLDG 1376 - Shielded Metal Arc Welding II (SMAW) WLDG 1377 - Gas Metal Arc Welding I (GMAW) WLDG 1378 - Gas Tungsten Arc Welding I (GTAW) WLDG 2372 – Layout and Fabrication II WLDG 2379 - Shielded Metal Arc Welding III Pipe (SMAW) Recommended Courses (9-3 Semester Hours) Major advisor will assist student in selection of appropriate courses as determined by individual career goals. Total (60 Semester Hours)

Three individual certificates combined into one certificate with 3 options

~~Machining Technology Advanced Certificate~~

Program Advisor - Robert Gustin, 335-4332, (rlgustin@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Certificate of Completion
Major Code – ~~MCHN.CERT~~
actx.edu/machining
~~Prepares students to enter the trades of production machinist or maintenance machinist with the skills to operate and maintain tolerances on manual and CNC equipment. The Technical Core must be completed prior to other classes.~~

~~Technical Core Requirements (12 Semester Hours)~~
- ~~ELPT 1311 – Basic Electrical Theory~~
- ~~ETWR 1371 – Technical Communication~~
- ~~INMT 1305 – Introduction to Industrial Maintenance~~
- ~~MCHN 1343 – Machine Shop Mathematics~~

Major Course Requirements (~~33 Semester Hours~~)
- ~~ELMT 1305 – Basic Fluid Power~~
- MCHN 1332 – Bench Work and Layout
- MCHN 1338 – Basic Machine Shop I
- MCHN 1341 – Basic Machine Shop II
- MCHN 1352 – Intermediate Machining I
- MCHN 1354 - Intermediate Machining II
- MCHN 2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls
- MCHN 2341 - Advanced Machining I
- WLDG 1372 – Layout and Fabrication I
- WLDG 1307 - Introduction to Welding Using Multiple Processes
- ~~WLDG 1337 - Introduction to Welding Metallurgy~~

TOTAL (~~45 Semester Hours~~)

~~Welding Technology – Nondestructive Technician Certificate~~

Program Advisor - Kim Hays, 335-4366, (kthays@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu)

Certificate of Completion
Major Code ~~- NDTE.CERT~~
actx.edu/ndt

~~Prepares students for employment and certification in areas of Nondestructive Testing. NDT courses meet and exceed the minimum requirements of the American Society for Nondestructive Testing. This certificate program prepares the student to evaluate outcomes of manufacturing processes~~.

~~Technical Core Requirements (12 Semester Hours)~~
- ~~ELPT 1311 – Basic Electrical Theory~~
- ~~ETWR 1371 – Technical Communication~~

PRECISION METALWORKING TECHNOLOGY

Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).

Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.

Advanced Certificate of Completion
Major Code – XXXX.CERT
actx.edu/xxxxxx
This curriculum prepares students for entry level positions in the Machining, Nondestructive Testing or Welding career fields. Precision Metalworking Basic Certificate must be completed prior to other classes. Students will consult with major advisor for program entry.

Precision Metalworking Basic Certificate (15 Semester Hours)

Major Course Options (21-30 Semester Hours)
The student must choose one of the following specialties

Machinist (30 Semester Hours)
- MCHN 1332 – Bench Work and Layout
- MCHN 1338 – Basic Machine Shop I
- MCHN 1341 – Basic Machine Shop II
- MCHN 1352 – Intermediate Machining I
- MCHN 1354 - Intermediate Machining II
- MCHN 1391 – Special Topics in Machining
- MCHN 2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls
- MCHN 2341 - Advanced Machining I
- MCHN 2345 – Advanced Machining II
- WLDG 1372 – Layout and Fabrication I

Nondestructive Testing (21 Semester Hours)
- ELPT 1311 – Basic Electrical Theory
- NDTE 1171 – Introduction to NDT
- NDTE 1274 - Visual Testing - Level 1 & 2
- NDTE 1305 – Introduction to Ultrasonics
- NDTE 1310 - Liquid Penetrant/Magnetic Particle Testing
- NDTE 1340 – Eddy Current Testing
- WLDG 1372 - Layout and Fabrication I
- WLDG 2372 – Layout and Fabrication II

Welding (27 Semester Hours)
- WLDG 1370 – Introduction to Arc Welding
- WLDG 1372 - Layout and Fabrication I
- WLDG 1373 – Thermal Cutting I
- WLDG 1375 - Shielded Metal Arc Welding I (SMAW)
- WLDG 1376 - Shielded Metal Arc Welding II (SMAW)
- WLDG 1377 - Gas Metal Arc Welding I (GMAW)
- WLDG 1378 - Gas Tungsten Arc Welding I (GTAW)
- WLDG 2372 – Layout and Fabrication II
- WLDG 2379 - Shielded Metal Arc Welding III Pipe (SMAW)

Total (36-45 Semester Hours)

~~INMT 1305 – Introduction to Industrial Maintenance~~
~~MCHN 1343 – Machine Shop Mathematics~~

Major Course Requirements (~~28 Semester Hours~~)
NDTE 1171 - Introduction to NDT
~~NDTE 1272 - Magnetic Particle Testing - Level 1 & 2~~
~~NDTE 1273 - Liquid Penetrant Testing - Level 1 & 2~~
NDTE 1274 - Visual Testing - Level 1 & 2
~~NDTE 1371 - Ultrasonic Testing - Level 1~~
~~NDTE 1373 - Electromagnetic Testing - Level 1~~
~~WLDG 1371 - Welding Fundamentals~~
WLDG 1372 - Layout and Fabrication I
WLDG 2372 – Layout and Fabrication II
~~WLDG 1337 - Introduction to Welding Metallurgy~~
WLDG 1307 – Introduction to Welding Using Multiple Processes

Total ~~(40 Semester Hours)~~

~~WELDING TECHNOLOGY~~
Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, ~~335-4398~~, (jdbradshaw@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).

~~Basic~~ Certificate of Completion
Major Code – ~~WELD.CERT.BAS~~
actx.edu/welding

~~Prepares students for entry level welding positions using American Welding Society (AWS) recognized standards. Upon successful completion, certificate holders will be ready to perform testing to D1.1 welding codes.~~

~~Welding Core Requirements (12 Semester Hours)~~
~~ETWR 1371 – Technical Communication~~
~~INMT 1305 – Introduction to Industrial Maintenance~~
~~MCHN 1343 – Machine Shop Mathematics~~
~~WLDG 1373 – Thermal Cutting I~~

Major Course Requirements (27 Semester Hours)
~~MCHN 1332 – Bench Work and Layout~~
~~WLDG 1371 - Welding Fundamentals~~
WLDG 1372 - Layout and Fabrication I
WLDG 2372 – Layout and Fabrication II
WLDG 1375 - Shielded Metal Arc Welding I (SMAW)
WLDG 1376 - Shielded Metal Arc Welding II (SMAW)
WLDG 1377 - Gas Metal Arc Welding I (GMAW)
WLDG 1378 - Gas Tungsten Arc Welding I (GTAW)
WLDG 2379 - Shielded Metal Arc Welding III Pipe (SMAW)
Total (~~39 Semester Hours~~)

No previous award New Major Code	PRECISION METALWORKING TECHNOLOGY Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, 335-4364, (jdbradshaw@actx.edu), Larrie Black, 335-4310, (jlblack@actx.edu), Robert Gustin, 335-4332, (rlgustin@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu). *Contact the Testing Center or the Program Advisor for testing requirements. Testing requirements are based on the unique needs of the certificate program.* Basic Certificate of Completion Major Code – XXXX.CERT.BAS *actx.edu/xxxxxx* This certificate creates the foundation for higher level Precision Metalworking awards. It must be completed prior to other classes. Precision Metalworking Basic Certificate (15 Semester Hours) DFTG 1325 – Blueprint Reading and Sketching ETWR 1302 – Introduction to Technical Writing INMT 1305 – Introduction to Industrial Maintenance MCHN 1343 – Machine Shop Mathematics WLDG 1307 – Introduction to Welding Using Multiple Processes Total (15 Semester Hours)

These awards are not being continued

~~Machining Technology Basic Certificate~~ ~~Program Advisor - Robert Gustin, 335-4332, (rlgustin@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).~~ ~~Certificate of Completion~~ ~~Major Code – MCHN.CERT.BAS~~ ~~Prepares students to enter the trades of production machinist or maintenance machinist with the skills to operate and maintain tolerances on manual equipment. The Technical Core must be completed prior to other classes.~~ ~~Technical Core Requirements (12 Semester Hours)~~ ~~ELPT 1311 – Basic Electrical Theory~~ ~~ETWR 1371 – Technical Communication~~ ~~INMT 1305 – Introduction to Industrial Maintenance~~ ~~MCHN 1343 – Machine Shop Mathematics~~ ~~Major Course Requirements (12 Semester Hours)~~ ~~MCHN 1332 – Bench Work and Layout~~ ~~MCHN 1338 – Basic Machine Shop I~~ ~~MCHN 1341 – Basic Machine Shop II~~ ~~WLDG 1372 – Layout and Fabrication I~~ ~~TOTAL (24 Semester Hours)~~	No replacement
~~WELDING TECHNOLOGY~~ ~~Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, 335-4398, (jdbradshaw@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).~~ ~~Advanced Certificate of Completion~~ ~~Major Code –WELD.CERT~~ ~~*actx.edu/welding*~~ ~~This certificate allows students to expand their experience and acquire more skills as an entry level maintenance welder using American Welding Society (AWS) recognized standards and also earns them a commercial driver's license. Upon successful completion, certificate holders will be ready to perform testing to D1.1 welding codes. Welding Core must be completed prior to other classes.~~ ~~Welding Core Requirements (12 Semester Hours)~~ ~~ETWR 1371 – Technical Communication~~ ~~INMT 1305 – Introduction to Industrial Maintenance~~ ~~MCHN 1343 – Machine Shop Mathematics~~ ~~WLDG 1373 – Thermal Cutting I~~ ~~Major Course Requirements (43 Semester Hours)~~ ~~CVOP 1301 – Commercial Drivers License Driving Skills~~ ~~CVOP 1305 – Commercial Drivers License Written Skills~~ ~~CVOP 2135 – Defensive Driving Course – Professional Truck Driver~~ ~~CVOP 2337 – Advanced Driving Skills II~~ ~~MCHN 1332 – Bench Work and Layout~~ ~~WLDG 1370 – Introduction to Arc Welding~~ ~~WLDG 1371 - Welding Fundamentals~~ ~~WLDG 1372 – Layout and Fabrication I~~ ~~WLDG 2372 – Layout and Fabrication II~~ ~~WLDG 1374 - Thermal Cutting II~~ ~~WLDG 1375 - Shielded Metal Arc Welding I (SMAW)~~ ~~WLDG 1376 - Shielded Metal Arc Welding II (SMAW)~~ ~~WLDG 1377 - Gas Metal Arc Welding I (GMAW)~~ ~~WLDG 1378 - Gas Tungsten Arc Welding I (GTAW)~~	No replacement

~~WLDG 2379 - Shielded Metal Arc Welding III Pipe (SMAW)~~ ~~Total (55 Semester Hours~~)	
~~Welding Technology – Welding Core~~ ~~Program advisor - Dr. Kim Hays, 335-4366 (kthays@actx.edu), Jimmy Bradshaw, 335-4398, (jdbradshaw@actx.edu) or contact Claudia Arnold, 335-4301 (caarnold@actx.edu).~~ ~~Certificate of Completion~~ ~~Major Code –WELD.MKT.CERT~~ ~~*actx.edu/welding*~~ ~~This certificate creates the foundation for the higher level Welding certificate.~~ ~~Welding Core Requirements (12 Semester Hours)~~ ~~ETWR 1371 – Technical Communication~~ ~~INMT 1305 – Introduction to Industrial Maintenance~~ ~~MCHN 1343 – Machine Shop Mathematics~~ ~~WLDG 1373 – Thermal Cutting I~~ ~~Total (12 Semester Hours)~~	No replacement

★ High Demand Occupations List ★

SOC Code	Occupational Title	Annual Annual Wage 2014	Hourly Wage 2014	Total Annual Average Job Openings	Annual Job Openings Due to Growth	Annual Job Openings Due to Replacements	Annual Annual Average Employment 2012	Annual Annual Average Employment 2022	Number Change 2012-2022	Percent Growth 2012-2022
29-1069	Physicians & Surgeons, All Other	$217,782	$104.70	15	5	10	310	380	70	22.6%
29-1051	Pharmacists	$120,660	$58.01	15	5	10	330	390	60	18.2%
Nov-31	Financial Managers	$116,636	$56.08	15	5	10	420	490	70	16.7%
17-2141	Mechanical Engineers	$115,297	$55.43	15	5	10	250	280	30	12%
25-1071	Health Specialties Teachers, Postsecondary	$103,773	NA	15	10	5	250	350	100	40%
17-2171	Petroleum Engineers	$102,310	$49.19	30	20	10	480	660	180	37.5%
23-1011	Lawyers	$98,216	$47.22	20	10	10	570	650	80	14%
11-1021	General & Operations Managers	$96,260	$46.28	95	45	50	2750	3210	460	16.7%
41-3031	Securities, Commodities, & Financial Services Sales Agents	$84,517	$40.63	15	5	10	390	430	40	10.3%
51-1011	First-Line Supervisors of Production & Operating Workers	$76,020	$36.55	35	15	20	1290	1450	160	12.4%
21-Nov	Construction Managers	$74,586	$35.86	25	10	15	1010	1130	120	11.9%
15-1121	Computer Systems Analysts	$73,822	$35.49	15	10	5	390	490	100	25.6%
Nov-32	Education Administrators, Elementary/Secondary School	$70,808	NA	15	5	10	410	450	40	9.8%
13-1199	Business Operations Specialists, All Other	$70,732	$34.01	20	10	10	770	860	90	11.7%
51-8093	Petroleum Pump System Operators, Refinery Operators, & Gaugers	$70,074	33.69	20	5	15	380	430	50	13.2%
15-1142	Network & Computer Systems Administrators	$68,813	$33.08	10	5	5	340	390	50	14.7%
13-2011	Accountants & Auditors	$65,730	$31.60	75	25	50	1640	1910	270	16.5%
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	$62,647	$30.12	35	15	20	780	910	130	16.7%
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	$59,932	$28.81	40	25	15	1240	1510	270	21.8%
31-2021	Physical Therapist Assistants	$59,077	$28.40	5	5	0	80	120	40	50%
31-2011	Occupational Therapy Assistants	$58,443	$28.10	0	0	0	40	60	20	50%
29-1141	Registered Nurses	$58,160	$27.96	140	80	60	3230	4050	820	25.4%
13-1071	Human Resources Specialists	$55,118	$26.50	15	5	10	420	470	50	11.9%
49-9043	Maintenance Workers, Machinery	$54,948	$26.42	15	10	5	300	390	90	30%
53-1031	First-Line Supervisors of Transportation & Material-Moving	$54,424	$26.17	15	5	10	310	360	50	16.1%

	Machine & Vehicle Operators									
49-9051	Electrical Power-Line Installers & Repairers	$53,350	$25.65	15	5	10	230	280	50	21.7%
21-1012	Educational, Guidance, School, & Vocational Counselors	$53,091	$25.52	15	5	10	370	410	40	10.8%
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex. Technical & Scientific Products	$52,616	25.3	65	25	40	1980	2240	260	13.1%
29-1126	Respiratory Therapists	$52,607	$25.29	10	5	5	180	220	40	22.2%
43-5061	Production, Planning, & Expediting Clerks	$52,274	$25.13	15	5	10	490	560	70	14.3%
43-5052	Postal Service Mail Carriers	$51,842	$24.92	15	0	15	390	360	-30	-7.7%
29-2034	Radiologic Technologists	$51,060	$24.55	10	5	5	220	290	70	31.8%
33-3051	Police & Sheriff's Patrol Officers	$50,939	$24.49	55	20	35	1180	1360	180	15.3%
41-3021	Insurance Sales Agents	$50,818	24.43	20	5	15	680	750	70	10.3%
43-1011	First-Line Supervisors of Office & Administrative Support Workers	$50,260	24.16	65	25	40	1610	1850	240	14.9%
15-1151	Computer User Support Specialists	$49,885	$23.98	20	10	10	520	610	90	17.3%
25-2031	Secondary School Teachers, Ex. Special & Career/Technical Education	$49,622	NA	70	20	50	1850	2030	180	9.7%
47-2111	Electricians	$49,418	$23.76	30	15	15	830	1000	170	20.5%
33-2011	Firefighters	$49,013	$23.56	20	5	15	460	530	70	15.2%
41-3099	Sales Representatives, Services, All Other	$48,338	$23.24	40	15	25	920	1070	150	16.3%
49-9041	Industrial Machinery Mechanics	$47,996	$23.07	55	30	25	800	1120	320	40%
25-2022	Middle School Teachers, Ex. Special & Career/Technical Education	$47,057	NA	50	20	30	1320	1530	210	15.9%
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	$47,016	$22.60	20	10	10	420	500	80	19%
21-2011	Clergy	$46,580	$22.39	45	25	20	1060	1300	240	22.6%
25-2021	Elementary School Teachers, Ex. Special Education	$46,484	NA	105	45	60	2640	3080	440	16.7%
41-1011	First-Line Supervisors of Retail Sales Workers	$45,283	$21.77	80	30	50	2330	2640	310	13.3%
45-1011	First-Line Supervisors of Farming, Fishing, & Forestry Workers	$44,396	$21.34	15	5	10	550	600	50	9.1%
29-2012	Medical & Clinical Laboratory Technicians	$44,241	$21.27	10	5	5	180	230	50	27.8%
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	$44,027	$21.17	20	10	10	440	530	90	20.5%
43-6011	Executive Secretaries & Executive Administrative Assistants	$43,550	$20.94	15	5	10	870	900	30	3.4%
47-2152	Plumbers, Pipefitters, & Steamfitters	$43,312	$20.82	15	10	5	600	720	120	20%

49-3042	Mobile Heavy Equipment Mechanics, Ex. Engines	$42,961	$20.65	15	5	10	270	320	50	18.5%
47-2031	Carpenters	$42,378	$20.37	20	10	10	770	870	100	13%
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	$42,244	$20.31	50	25	25	1030	1260	230	22.3%
33-9032	Security Guards	$41,866	$20.13	25	10	15	930	1050	120	12.9%
53-3032	Heavy & Tractor-Trailer Truck Drivers	$41,410	$19.91	145	80	65	4110	4900	790	19.2%
51-4121	Welders, Cutters, Solderers, & Brazers	$41,371	$19.89	30	10	20	810	930	120	14.8%
29-2061	Licensed Practical & Licensed Vocational Nurses	$40,678	$19.56	55	30	25	1120	1440	320	28.6%
51-4041	Machinists	$40,440	$19.44	25	10	15	560	680	120	21.4%
47-5013	Service Unit Operators, Oil, Gas, & Mining	$39,839	$19.15	40	15	25	590	760	170	28.8%
51-4011	Computer-Controlled Machine Tool Operators, Metal/Plastic	$39,662	$19.07	15	5	10	290	360	70	24.1%
43-9041	Insurance Claims & Policy Processing Clerks	$39,267	$18.88	15	5	10	280	320	40	14.3%
47-2073	Operating Engineers & Other Construction Equipment Operators	$38,606	$18.56	30	15	15	750	920	170	22.7%
43-5032	Dispatchers, Ex. Police, Fire, & Ambulance	$37,673	$18.11	15	5	10	300	360	60	20%
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	$37,346	$17.95	70	35	35	1240	1590	350	28.2%
33-3012	Correctional Officers & Jailers	$36,656	$17.62	75	25	50	1980	2230	250	12.6%
49-3023	Auto Service Technicians & Mechanics	$35,958	$17.29	45	20	25	970	1160	190	19.6%
25-2011	Preschool Teachers, Ex. Special Education	$34,207	$16.45	20	10	10	410	490	80	19.5%
43-3031	Bookkeeping, Accounting, & Auditing Clerks	$33,433	$16.07	55	35	20	2110	2440	330	15.6%
43-3011	Bill & Account Collectors	$32,901	$15.82	15	5	10	370	430	60	16.2%
49-9071	Maintenance & Repair Workers, General	$32,541	$15.64	65	30	35	1860	2160	300	16.1%
47-5071	Roustabouts, Oil & Gas	$32,490	$15.62	30	15	15	660	830	170	25.8%
29-2052	Pharmacy Technicians	$31,824	$15.30	15	10	5	440	550	110	25%
43-5071	Shipping, Receiving, & Traffic Clerks	$31,332	$15.06	35	10	25	860	950	90	10.5%
41-2022	Parts Salespersons	$31,248	$15.02	15	5	10	300	350	50	16.7%
47-2141	Painters, Construction & Maintenance	$30,440	$14.63	15	5	10	520	590	70	13.5%
21-1093	Social & Human Service Assistants	$30,250	$14.54	15	5	10	290	350	60	20.7%
43-9061	Office Clerks, General	$30,084	$14.46	125	35	90	4200	4570	370	8.8%
43-3021	Billing & Posting Clerks	$29,875	$14.36	25	15	10	670	810	140	20.9%
	Industrial Truck & Tractor									

53-7051	Operators	$29,215	$14.05	20	5	15	710	740	30	4.2%
43-6013	Medical Secretaries	$28,950	$13.92	60	45	15	1190	1650	460	38.7%
43-6014	Secretaries & Administrative Assistants, Ex. Legal, Medical, & Executive	$28,726	$13.81	85	50	35	3070	3550	480	15.6%
47-2061	Construction Laborers	$28,493	$13.70	95	45	50	2390	2830	440	18.4%
39-5012	Hairdressers, Hairstylists, & Cosmetologists	$28,171	$13.54	15	5	10	340	390	50	14.7%
53-3031	Driver/Sales Workers	$27,774	$13.35	30	15	15	790	940	150	19%
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	$27,372	$13.16	155	50	105	3430	3940	510	14.9%
43-4051	Customer Service Representatives	$27,214	$13.08	110	40	70	2580	2960	380	14.7%
51-3023	Slaughterers & Meat Packers	$27,071	$13.01	65	15	50	2000	2160	160	8%
53-3033	Light Truck or Delivery Services Drivers	$26,857	$12.91	30	15	15	1040	1190	150	14.4%
51-2092	Team Assemblers	$26,837	$12.90	20	10	10	740	830	90	12.2%
41-2021	Counter & Rental Clerks	$26,471	$12.73	20	5	15	510	570	60	11.8%
31-1014	Nursing Assistants	$26,074	$12.54	70	40	30	1620	2030	410	25.3%
31-9092	Medical Assistants	$26,004	$12.50	40	25	15	810	1070	260	32.1%
51-3021	Butchers & Meat Cutters	$25,595	$12.31	35	15	20	720	850	130	18.1%
49-9098	Helpers--Installation, Maintenance, & Repair Workers	$25,116	$12.08	15	5	10	360	430	70	19.4%
41-2031	Retail Salespersons	$24,857	11.95	285	80	205	6000	6810	810	13.5%
51-6011	Laundry & Dry-Cleaning Workers	$24,843	$11.94	15	5	10	340	370	30	8.8%
51-9198	Helpers--Production Workers	$24,622	$11.84	30	15	15	950	1090	140	14.7%
51-3022	Meat, Poultry, & Fish Cutters & Trimmers	$24,365	$11.71	100	45	55	2190	2630	440	20.1%
43-4171	Receptionists & Information Clerks	$23,971	$11.52	30	10	20	810	910	100	12.3%
43-3071	Tellers	$23,560	$11.33	40	5	35	720	770	50	6.9%
37-3011	Landscaping & Groundskeeping Workers	$23,544	$11.32	45	15	30	1200	1350	150	12.5%
31-1011	Home Health Aides	$22,769	$10.95	35	25	10	610	870	260	42.6%
51-9111	Packaging & Filling Machine Operators & Tenders	$22,337	$10.74	35	15	20	890	1020	130	14.6%
43-5081	Stock Clerks & Order Fillers	$21,957	$10.56	75	5	70	2280	2350	70	3.1%
45-2093	Farmworkers; Farm, Ranch, & Aquacultural Animals	$21,746	$10.45	210	25	185	6030	6290	260	4.3%
51-3092	Food Batchmakers	$21,724	$10.44	15	5	10	340	400	60	17.6%
37-2011	Janitors & Cleaners, Ex. Maids & Housekeeping Cleaners	$21,707	$10.44	85	35	50	2620	2970	350	13.4%
35-2012	Cooks, Institution & Cafeteria	$21,594	$10.38	20	10	10	490	580	90	18.4%
33-9092	Lifeguards, Ski Patrol, & Other Recreational Protective Service Workers	$21,559	$10.37	15	5	10	160	190	30	18.8%

25-9041	Teacher Assistants	$21,555	NA	50	15	35	1460	1600	140	9.6%
53-7061	Cleaners of Vehicles & Equipment	$21,442	$10.31	45	20	25	900	1080	180	20%
53-7064	Packers & Packagers, Hand	$20,488	$9.85	50	20	30	1240	1440	200	16.1%
35-2014	Cooks, Restaurant	$20,080	$9.65	70	45	25	1360	1810	450	33.1%
39-3091	Amusement & Recreation Attendants	$19,976	$9.60	15	5	10	210	250	40	19%
35-3011	Bartenders	$19,798	$9.52	30	10	20	530	650	120	22.6%
45-2092	Farmworkers & Laborers; Crop, Nursery, & Greenhouse	19598	9.42	340	0	340	11270	10760	-510	-4.5%
41-2011	Cashiers	19063	9.17	280	60	220	5060	5660	600	11.9%
39-9011	Childcare Workers	19033	9.15	95	35	60	2090	2460	370	17.7%
35-2021	Food Preparation Workers	18920	9.1	40	15	25	870	1000	130	14.9%
43-4081	Hotel, Motel, & Resort Desk Clerks	18362	8.83	20	5	15	330	400	70	21.2%
25-3098	Substitute Teachers	18309	8.8	25	10	15	1010	1100	90	8.9%
35-3031	Waiters & Waitresses	18298	8.8	215	65	150	3110	3750	640	20.6%
35-2011	Cooks, Fast Food	17846	8.58	20	10	10	620	720	100	16.1%
35-9031	Hosts & Hostesses, Restaurant, Lounge, & Coffee Shop	17834	8.57	45	10	35	470	570	100	21.3%
35-3021	Combined Food Preparation & Serving Workers, Incl. Fast Food	17830	8.57	315	135	180	4680	6040	1360	29.1%
37-2012	Maids & Housekeeping Cleaners	17707	8.51	50	20	30	1450	1650	200	13.8%
39-9021	Personal Care Aides	17679	8.5	120	100	20	2460	3450	990	40.2%
35-9021	Dishwashers	17609	8.47	35	10	25	550	660	110	20%
35-3022	Counter Attendants, Cafeteria, Food Concession, & Coffee Shop	17313	8.32	35	5	30	480	530	50	10.4%
35-9011	Dining Room & Cafeteria Attendants & Bartender Helpers	17117	8.23	30	10	20	490	600	110	22.4%
45-2021	Animal Breeders	NA	NA	25	5	20	690	730	40	5.8%
47-5011	Derrick Operators, Oil & Gas	NA	NA	15	5	10	220	280	60	27.3%
47-5012	Rotary Drill Operators, Oil & Gas	NA	NA	15	5	10	230	290	60	26.1%
49-3011	Aircraft Mechanics & Service Technicians	NA	NA	5	0	5	140	160	20	14.3%
13-Nov	Farmers, Ranchers, & Other Agricultural Managers	NA	NA	170	0	170	10660	10390	-270	-2.5%
49-9098	Helpers--Installation, Maintenance, and Repair Workers	0	0	0	0	0	0	0	0	0%
51-1011	First-Line Supervisors of Production and Operating Workers	0	0	0	0	0	0	0	0	0%
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	0	0	0	0	0	0	0	0	0%
51-2041	Structural Metal Fabricators and Fitters	0	0	0	0	0	0	0	0	0%
51-2092	Team Assemblers	0	0	0	0	0	0	0	0	0%
51-3021	Butchers and Meat Cutters	0	0	0	0	0	0	0	0	0%
	Meat, Poultry, and Fish Cutters and									

51-3022	Trimmers	0	0	0	0	0	0	0	0	0%
51-3023	Slaughterers and Meat Packers	0	0	0	0	0	0	0	0	0%
51-3092	Food Batchmakers	0	0	0	0	0	0	0	0	0%
51-4041	Machinists	0	0	0	0	0	0	0	0	0%
51-4121	Welders, Cutters, Solderers, and Brazers	0	0	0	0	0	0	0	0	0%
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	0	0	0	0	0	0	0	0	0%
51-9111	Packaging and Filling Machine Operators and Tenders	0	0	0	0	0	0	0	0	0%
51-9198	Helpers--Production Workers	0	0	0	0	0	0	0	0	0%
53-3022	Bus Drivers, School or Special Client	0	0	0	0	0	0	0	0	0%
53-3031	Driver/Sales Workers	0	0	0	0	0	0	0	0	0%
53-3032	Heavy and Tractor-Trailer Truck Drivers	0	0	0	0	0	0	0	0	0%
53-3033	Light Truck or Delivery Services Drivers	0	0	0	0	0	0	0	0	0%
53-7021	Crane and Tower Operators	0	0	0	0	0	0	0	0	0%
53-7032	Excavating and Loading Machine and Dragline Operators	0	0	0	0	0	0	0	0	0%
53-7051	Industrial Truck and Tractor Operators	0	0	0	0	0	0	0	0	0%
53-7061	Cleaners of Vehicles and Equipment	0	0	0	0	0	0	0	0	0%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	0	0	0	0	0	0	0	0	0%
53-7064	Packers and Packagers, Hand	0	0	0	0	0	0	0	0	0%
53-7072	Pump Operators, Except Wellhead Pumpers	0	0	0	0	0	0	0	0	0%
53-7073	Wellhead Pumpers	0	0	0	0	0	0	0	0	0%

*Totals may not add due to suppression and rounding

*Defined as Armstrong, Briscoe, Carson, Castro, Childress, Collingsworth, Dallam, Deaf Smith, Donley, Gray, Hall, Hansford, Hartley, Hemphill, Hutchinson, Lipscomb, Moore, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher, and Wheeler Counties.

Demand Occupations meet the following criteria: Texas Workforce Commission projects 100 or more openings over the next ten years, or 15 or more annual openings.

O*NET OnLine

Quick Search for:
machinist

Showing top 20 occupations for **machinist**. Closest matches are shown first.

How do they match?	Code	Occupation
	51-4041.00	Machinists **Bright Outlook** **Green**
	51-4011.00	Computer-Controlled Machine Tool Operators, Metal and Plastic
	51-4012.00	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic
	51-4031.00	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
	51-4032.00	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
	51-4034.00	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
	51-4035.00	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
	51-4081.00	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
	51-7042.00	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
	51-2031.00	Engine and Other Machine Assemblers
	51-4033.00	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
	51-4111.00	Tool and Die Makers
	49-9071.00	Maintenance and Repair Workers, General
	51-5113.00	Print Binding and Finishing Workers
	51-4061.00	Model Makers, Metal and Plastic
	51-4062.00	Patternmakers, Metal and Plastic
	51-7011.00	Cabinetmakers and Bench Carpenters
	49-	Maintenance Workers, Machinery

9043.00

51-4194.00 Tool Grinders, Filers, and Sharpeners

47-2211.00 Sheet Metal Workers

Occupations 1-20 of 313 shown. Show all occupations

O*NET OnLine

Quick Search for:
nondestructive testing

Showing top 20 occupations for **nondestructive testing**. Closest matches are shown first.

How do they match?	Code	Occupation
	17-3029.01	Non-Destructive Testing Specialists **Bright Outlook**
	53-6051.01	Aviation Inspectors
	17-3029.00	Engineering Technicians, Except Drafters, All Other
	15-1199.01	Software Quality Assurance Engineers and Testers
	51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers **Green**
	19-3032.00	Industrial-Organizational Psychologists
	17-3024.00	Electro-Mechanical Technicians
	19-4041.02	Geological Sample Test Technicians
	29-2011.00	Medical and Clinical Laboratory Technologists
	19-4011.01	Agricultural Technicians
	47-5021.00	Earth Drillers, Except Oil and Gas
	17-3029.02	Electrical Engineering Technologists
	49-9092.00	Commercial Divers
	17-2112.00	Industrial Engineers
	53-6051.07	Transportation Vehicle, Equipment and Systems Inspectors, Except Aviation
	17-2071.00	Electrical Engineers
	49-9097.00	Signal and Track Switch Repairers
	19-	Environmental Science and Protection Technicians, Including Health

4091.00

17-2131.00 Materials Engineers

31-9092.00 Medical Assistants

Occupations 1-20 of 535 shown. Show all occupations

O*NET OnLine

Quick Search for:
welder

Showing top 20 occupations for **welder**. Closest matches are shown first.

How do they match?	Code	Occupation
	51-4121.06	Welders, Cutters, and Welder Fitters **Bright Outlook** **Green**
	51-4121.00	Welders, Cutters, Solderers, and Brazers
	51-4122.00	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
	47-2211.00	Sheet Metal Workers
	51-2041.00	Structural Metal Fabricators and Fitters
	49-9071.00	Maintenance and Repair Workers, General
	51-4121.07	Solderers and Brazers
	51-4192.00	Layout Workers, Metal and Plastic
	51-2011.00	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
	47-2011.00	Boilermakers
	47-2152.01	Pipe Fitters and Steamfitters
	47-2221.00	Structural Iron and Steel Workers
	47-2031.01	Construction Carpenters
	47-2171.00	Reinforcing Iron and Rebar Workers
	47-4061.00	Rail-Track Laying and Maintenance Equipment Operators
	49-9041.00	Industrial Machinery Mechanics
	51-4041.00	Machinists
	51-	Engine and Other Machine Assemblers

2031.00

49-3092.00 Recreational Vehicle Service Technicians

49-9012.00 Control and Valve Installers and Repairers, Except Mechanical Door

Occupations 1-20 of 80 shown. Show all occupations

Texas CARES

Governor's State Targeted Occupations
March 2009

O*NET	Title	Employment 2006	Employment 2016	Change Abs.	Change Pct.	Openings Growth	Openings Repl.	Openings Total	2008 Wages	Typical Education & Training Requirement
13-2011.01	Accountants	105,840	131,250	25,410	24.00	2,540	3,145	5,685	$73,600	
17-3021.00	Aerospace Engineering and Operations Technicians	760	830	70	9.20	5	15	20	$56,790	
49-3011.00	Aircraft Mechanics and Service Technicians	13,020	15,190	2,170	16.70	215	350	565	$56,210	
19-2021.00	Atmospheric and Space Scientists	760	930	170	22.40	15	20	35	$66,090	
49-2091.00	Avionics Technicians	1,490	1,720	230	15.40	25	30	55	$46,830	
13-1199.00	Business Operations Specialists, All Other	65,010	77,950	12,940	19.90	1,295	890	2,185	$79,790	
11-3041.00	Compensation and Benefits Managers	840	990	150	17.90	15	20	35	$133,950	
13-1072.00	Compensation, Benefits, and Job Analysis Specialists	6,540	7,660	1,120	17.10	110	120	230	$65,230	
13-1041.00	Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	22,220	25,690	3,470	15.60	345	410	755	$66,540	
11-3021.00	Computer and Information Systems Managers	17,840	22,100	4,260	23.90	425	250	675	$135,140	
15-1031.00	Computer Software Engineers, Applications	40,580	50,780	10,200	25.10	1,020	520	1,540	$94,700	
15-1032.00	Computer Software Engineers, Systems Software	32,240	40,480	8,240	25.60	820	415	1,235	$99,530	
15-1051.00	Computer Systems Analysts	44,140	58,100	13,960	31.60	1,370	690	2,060	$87,340	
47-4011.00	Construction and Building Inspectors	7,080	8,680	1,600	22.60	160	185	345	$55,030	
11-9021.00	Construction Managers	64,940	74,370	9,430	14.50	945	1,025	1,970	$82,810	
13-1051.00	Cost Estimators	14,400	18,440	4,040	28.10	405	465	870	$65,270	
15-1061.00	Database Administrators	10,060	12,260	2,200	21.90	220	190	410	$75,610	
13-1071.00	Employment, Recruitment, and Placement Specialists	36,760	42,770	6,010	16.30	600	670	1,270	$62,290	
17-2199.00	Engineers, All Other	8,350	9,720	1,370	16.40	135	155	290	$104,570	
13-2051.00	Financial Analysts	20,130	24,560	4,430	22.00	445	490	935	$89,600	
11-3031.00	Financial Managers	29,610	36,030	6,420	21.70	640	555	1,195	$129,800	
47-1011.00	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	63,820	79,830	16,010	25.10	1,600	690	2,290	$60,570	
13-1079.00	Human Resources, Training, and Labor Relations Specialists, All Other									
17-3026.00	Industrial Engineering Technicians	4,450	5,060	610	13.70	60	90	150	$63,680	
17-2112.00	Industrial Engineers	14,940	18,260	3,320	22.20	330	435	765	$99,720	
49-9041.00	Industrial Machinery Mechanics	30,520	43,170	12,650	41.40	1,265	880	2,145	$48,840	
13-2072.00	Loan Officers	26,810	32,140	5,330	19.90	535	495	1,030	$70,040	
19-3021.00	Market Research Analysts	24,010	33,850	9,840	41.00	985	330	1,315	$70,000	
29-2011.00	Medical and Clinical Laboratory Technologists	13,030	16,080	3,050	23.40	305	340	645	$57,080	
49-9044.00	Millwrights	3,470	4,390	920	26.50	90	55	145	$43,530	
27-1014.00	Multi-Media Artists and Animators	3,940	4,640	700	17.80	70	115	185	$51,930	
15-1071.00	Network and Computer Systems Administrators	30,150	36,620	6,470	21.50	645	475	1,120	$80,770	
15-1081.00	Network Systems and Data Communications Analysts									
29-9011.00	Occupational Health and Safety Specialists	7,210	8,790	1,580	21.90	160	195	355	$70,520	
13-2052.00	Personal Financial Advisors	15,320	19,810	4,490	29.30	450	250	700	$88,310	
17-2171.00	Petroleum Engineers	19,280	28,010	8,730	45.30	875	490	1,365	$159,340	
47-2152.00	Plumbers, Pipefitters, and Steamfitters	33,830	40,860	7,030	20.80	705	420	1,125	$46,680	
27-3031.00	Public Relations Specialists	16,860	20,330	3,470	20.60	345	235	580	$57,000	
29-2034.00	Radiologic Technologists and Technicians	13,350	17,410	4,060	30.40	405	190	595	$53,490	
29-1111.00	Registered Nurses	189,380	242,860	53,480	28.20	5,370	3,670	9,040	$67,860	

47-5012.00	**Rotary Drill Operators, Oil and Gas**	**9,380**	**12,190**	**2,810**	**30.00**	**280**	**380**	**660**	**$69,490**
41-3099.00	**Sales Representatives, Services, All Other**	**79,460**	**98,240**	**18,780**	**23.60**	**1,880**	**2,165**	**4,045**	**$58,690**
13-1073.00	**Training and Development Specialists**	**19,410**	**23,910**	**4,500**	**23.20**	**440**	**355**	**795**	**$59,240**

Texas Workforce Commission/Labor Market and Career Information (TWC/LMCI)
TWC Annex, Room 0252
101 E. 15th Street
Austin, TX 78778
(512) 936-3109

1-800-822-PLAN
http://www.lmci.state.tx.us

The information in this report may be derived from many sources. To learn more about Texas CARES or any data element please contact LMCI.

USEFUL TIP: Now that you have identified one or more occupations which may be of interest to you, you might consider using the internet to look for job openings in those occupations. One recommended place to start is the Texas job posting service called WorkInTexas, which is located at http://www.twc.state.tx.us/jobs/job.html. At this site you may perform a search for specific job openings which are unlikely to be posted in your local newspapers.

Advisory Committee Meeting Minutes

PROGRAM COMMITTEE NAME:	Machining Technology Program				
CHAIRPERSON:	John Cunningham				
MEETING DATE:	3/10/2015	**MEETING TIME:**	3:00 p.m.	**MEETING PLACE:**	East Campus - Manufacturing Education Center, Room 104
RECORDER:	Debra Russell			**PREVIOUS MEETING:**	3-Nov-11

COMMITTEE MEMBERS

List all members of the committee, then place an X in the box left of name if present

	NAME	TITLE	EMPLOYER INFO	PHONE	EMAIL
X	John Cunningham	Production Manager	Amarillo Gear Co.	(806) 622-1273	jcunningham@amarillogear.com
	David Ellis	Machining Supervisor	Cooper Crouse-Hinds	(806) 354-7038	davidwellis@eaton.com
X	LeAnn Estep	Director, Career & Technical	Amarillo ISD	(806) 326-1319	leann.estep@amaisd.org
X	David Gibson	Instructor	Amarillo ISD - Caprock High School	(806) 326-7934	david.gibson@amaisd.org
	Michael Haning	Operations Director	Diversified Industrial Svcs Co (DISCO)	(806) 372-8930	michael@disco-inc.com
	Chad Henderson	Maintenance Manager	ASARCO, LLC	(806) 468-4252	chenderson@asarco.com
	John Herrera	Craft Supervisor	Pantex	(806) 477-3413	jherrera@pantex.com
	Donnie Horton	Sales Representative	Sandvik Coromant Co.	(806) 778-4283	donald.horton@sandvik.com
X	Greg Hudspeth	Vice President	City Machine	(806) 358-7293	ghudspeth@cmwelding.com
	Chris Kerbo		Titan Specialties	(806) 665-3781	ckerbo@titanspecialties.com
	John Mitchell	Machining & Welding Supervisor	TASCO	(806) 335-2301	john-mitchell@tyson.com
X	Ronnie Nemoede	Machinist	City Machine	(806) 358-7293	
X	Dashia Sanders	Facilities Management Associate/Student	Bell Helicopter	(806) 467-4254	dsanders@bh.com
	Chris Swenson	CEO	Swenson Machine	(806) 622-2730	chrisswenson@suddenlinkmail.com

EX-OFFICIO'S PRESENT

X	Robert Gustin	Instructor, Machining Technologies	Amarillo College	(806) 335-4332	rlgustin@actx.edu
X	Dr. Kim Hays	Chair, Manufacturing Tech Dept	Amarillo College	(806) 335-4366	kthays@actx.edu
X	Amy Linquist	Sr. Staff Assistant, Industrial Maint	Amarillo College	(806) 335-4216	arevans42@actx.edu
X	Debra Russell	Sr. Secretary, Mfg Tech Dept	Amarillo College	(806) 335-4390	dlrussell@actx.edu
X	Jeff Wallick	Coordinator, Technical Trng	Amarillo College	(806) 335-4228	jwallick@actx.edu

AGENDA ITEM	ACTION DISCUSSION INFORMATION	RESPONSIBILITY
Old Business:	No old business	
Continuing Business:	No continuing business	
New Business:		
Welcome / Introductions		John Cunningham
Curriculum Decisions:		
Program Updates, Curriculum Overview		Bob Gustin / Dr. Hays
Other:		
NIMS Accreditation		Bob Gustin
Open Discussion		

KEY DISCUSSION POINTS	DISCUSSION
Old Business:	No old business
Continuing Business:	No continuing business
New Business: Welcome / Introductions	John Cunningham opened the meeting with a welcome. Dr. Kim Hays explained some of the requirements contained in the Advisory Committee Handbook. Dashia Sanders was at the meeting representing Bell Helicopter and is also a student in the Machining program.
Curriculum Decisions: Program Updates, Curriculum Overview	Copies of the current curriculum and course descriptions were included in members' packets. Bob Gustin explained that the Machining program now has both a basic and an advanced certificate. The Technical Core (consisting of Technical Communication, Machine Shop Math, Introduction to Industrial Maintenance, and Basic Electrical Theory) are the first classes that students will take when they start the Machining program. Another change that will be in the 2015-2016 catalog is the requirement that the technical core classes must be passed with the grade of "C" before students can take other classes. Bob mentioned that many classes are shared between the different programs and will give the students a broad base to build on. Once the Machining majors get to the Machining classes, projects are 100 percent NIMS driven. Bob would like for every Machining major to graduate with at least four NIMS certificates.
	There was some discussion about the need for an A.A.S. degree. Several individuals agreed that having a degree in the Machining program would not add to the employability of the student.

Other:	
NIMS Accreditation	Bob Gustin announced that in the next weeks to come he would be sending the last documentation that would allow Amarillo College to be the third in the State of Texas to be accreditated by NIMS (National Institute of Metalworking Skills). He thanked committee members for their support and involvement that have helped to make this happen. Bob added that having this accreditation and pushing to 100 percent NIMS projects allows students to graduate with a nationally recognized ANSI standard recognized throughout the United States.
Open Discussion	David Gibson, Machining instructor from Caprock H.S., reported that the program at Caprock is in the second year and running with 17 students. 14 of the 17 students have at least one NIMS certificate. AMISD is wanting to expand the program but size of shop space and safety for the students limits the size of the program. LeeAnn Estep explained that Amarillo ISD is currently looking at a place to house the program where it can be expanded and draw from all four Amarillo high schools. Bob Gustin mentioned that approximately 50 percent of the current Machining majors were women.

Recorder Signature: Debra L. Russell	**Date:** March 10, 2015	**Next Meeting:** Tenatively September 15, 2015.

Advisory Committee Meeting Minutes

PROGRAM COMMITTEE NAME:	Machining Technology Program				
CHAIRPERSON:	John Cunningham				
MEETING DATE:	7-Apr-16	**MEETING TIME:**	2:00 p.m.	**MEETING PLACE:**	East Campus - Manufacturing Education Center, Room 104
RECORDER:	Debra Russell			**PREVIOUS MEETING:**	17-Nov-15

COMMITTEE MEMBERS

List all members of the committee, then place an X in the box left of name if present

	NAME	TITLE	EMPLOYER INFO	PHONE	EMAIL
	Kenneth Baltez	Machinist	CDS Industrial	(806) 372-8930	waterjet@cdsindustrial.com
X	John Cunningham	Production Manager	Amarillo Gear Co.	(806) 676-9131	jcunningham@amarillogear.com
	LeAnn Estep	Director, Career & Technical	Amarillo ISD	(806) 326-1319	leann.estep@amaisd.org
X	David Gibson	Instructor	Amarillo ISD - Caprock High School	(806) 326-2265	david.gibson@amaisd.org
X	Chad Henderson	Machine Shop Supervisor	ASARCO, LLC	(806) 468-4004	chenderson@asarco.com
X	John Herrera	Craft Supervisor	Pantex	(806) 477-3413	jherrera@pantex.com
	Shelby Sumpter	Territory Productivity Engineer	Sandvik Coromant Co.	(806) 500-5382	shelby.sumpter@sandvik.com
X	Greg Hudspeth	Vice President	City Machine and Welding	(806) 358-7293	ghudspeth@cmwelding.com
X	Chris Kerbo	Manager	Hunting Titan	(806) 665-3781	chris.kerbo@hunting-intl.com
X	John Mitchell	Machining & Welding Supervisor	TASCO	(806) 335-2301	john.mitchell@tyson.com
	Jarred Morland	General Manager	CDS Industrial	(806) 372-8930	jaredm@cdsindustrial.com
X	Ronnie Nemoede	Machinist	City Machine	(806) 358-7295	ronnie@cmwelding.com
	Chris Swenson	CEO	Swenson Machine	(806) 622-2730	chrisswenson@suddenlinkmail.com

EX-OFFICIO'S PRESENT

X	Robert Gustin	Instructor, Machining Technologies	Amarillo College	(806) 335-4332	rlgustin@actx.edu
X	Dr. Kim Hays	Chair, Manufacturing Tech Dept	Amarillo College	(806) 335-4366	kthays@actx.edu
X	Debra Russell	Sr. Secretary, Mfg Tech Dept	Amarillo College	(806) 335-4390	dlrussell@actx.edu
X	Jerry Terry	Coordinator, Technical Core	Amarillo College	(806) 335-4280	jlterry@actx.edu
X	Jeff Wallick	Coordinator, Technical Trng	Amarillo College	(806) 335-4228	jwallick@actx.edu
X	Dr. Deborah Vess	Vice President for Academic Affairs	Amarillo College	(806) 371-5226	deborah.vess@actx.edu

AGENDA ITEM	ACTION DISCUSSION INFORMATION	RESPONSIBILITY
Old Business:	No old business	
Continuing Business:	No continuing business	
New Business:		
Welcome / Introductions		John Cunningham
Curriculum Decisions:		
Program Curriculum & Status		Bob Gustin / Dr. Kim Hays
Other:		
Open Discussion		

KEY DISCUSSION POINTS	DISCUSSION
Old Business:	No old business
Continuing Business:	No continuing business
New Business:	John Cunningham opened the meeting with a welcome. Kim Hays thanked everyone for coming and explained the importance of the meeting was to discuss some new rules and educational changes.
Welcome / Introductions	

Program Curriculum and Status	Dr. Hays commented that it might appear as we are not sending out students to employers, but in actuality, Amarillo College has as hard a time getting students as employers have at getting employees. He explained, this day and age, almost all students are applying for and using financial aid. That means that financial aid sometimes serves as the recruiting tool for college students. With this aid now paying for so many students, there are limits to the number of credit hours a student can take as well as the length of time. This sometimes equates to the caliber of students we get and the amount of skills we can teach them. With new rules from Legislature, also comes new issues for what we can require or not. The educational trend now is shorter, quicker, cheaper. Some students' communication and math skills are as low as a first grade level. There is a plan where students don't begin the Machining classes until they have brought these skills up. There is also a new mandated block scheduling. Students register in the "block" and not individual classes. They register once, start classes and don't have any long breaks until it is done. Everything is laid out for the student. This also requires a student to maintain good attendance from beginning to end which makes it hard for the students who also have jobs already. Beginning this fall, both the Machining and Welding programs are becoming "block programs" with some shared technical core classes. Dr. Hays showed the calendar for the group "or cohort". It will be a full year of classes. If a student starts in the fall semester in August 2016, he will finish Nov 16, 2017. Dr. Hays also explained that financial aid has rules about qualifications and start and ending dates. The question was asked if this block scheduling will affect articulation credit or dual credit classes in the high schools? Dr.Hays said HS students will still be able to jump in the classes where they need to start. The classes will be limited in size, but we have not had to address "overfilling" in the Machining program yet. Bob explained that with too many students in the Machining labs it is unmanageable and becomes a safety risk. Students who have credit from experience, or articulated credit from the high schools can jump in where their level would be, but they have to be able to prove that they have the beginning skills.

Bob reported on the two new Machining classes that are being added to the curriculum. He is adding Advanced Machining II and a class called NIMS Projects. The NIMS Projects class is one that was designed to ensure that the students have a class that allows them time to gain credentials. He explained that 100% of the past students who have NIMS credentials are working in the field. All skills will be stair-stepped beginning with the Bench Work and Layout class. He said that NIMS is still in force and he maintains the NIMS guidelines and standards. He also said that class caps will be held strong because all students have to be allowed machine time. It was explained that having the NIMS accreditation helps Amarillo College on the political side by specifying standards such as class outcomes and sizes that have to be observed. The block program is compressed but it does cover all skills. Bob said there has been good success with "cohorts". Dr. Hays explained that we will begin a new block program to be conducted in the evenings as that has proven to be our largest student population. With the block scheduling, every few weeks will begin a different class. The classes will be 6:00-10:00 p.m. Monday through Thursday only. It has been found that students are not always successful going to work all day and then going to classes five nights a week.

Dr. Hays reported that Amarillo College has always had a certificate, but now adding an Associate degree. The degree doesn't add more machining classes but now has opportunities for more general education or business classes. These classes that apply to the degree will not be part of the cohort, but will be taken after the machining classes.

Dr. Vess asked how this program will affect the students from Caprock High School's dual credit classes. David Gibson answered that students will be able to come into the Machining program about 25% completed. Many students do not choose to take the class in the high school and then come into the Machining program. Many are lost between the hs and college. Articulation agreements are already in place but not many takers. Question - Dr. Vess: Are they able to get jobs before they have completed the program? At what point are students employable? David Gibson answered that it depends on where they are employed. There are some lower-level jobs, but they do not have the maturity level to work at the high end levels. Chris Kerbo said that if applicants can read a micrometer or have as much as blueprint reading, they are employable in his company. He said they hire employees "off the street" and then train. They have one employee that came from Amarillo College and he would welcome more. John Cunningham commented that as businesses, they see the "community college" as support for industry. He asked the question about the continued support for special needs training for our industrial partners. Dr. Hays said that he felt that this may be the time that "contract training for industry" will come back as the key method of working with industry. John Cunningham said that as employers, they need to be more willful of getting their employees to continue their college training. Dr. Hays said that it helps when employed students are in classes as they can help give the other students purpose. John said he gives full support of what we are doing.

Open Discussion	Dr. Vess asked if our curriculum was right… too long or too short? Are we covering what is needed? John Cunningham said that what we offer are the fundamentals that will get the student "in the door". In the time that AC has the student, it is not achievable to compare with the apprenticeships from years ago but it gives a core to build on. The NIMS credentialing is a benchmark that makes the student more employable. David Gibson commented that it doesn't matter what career field, new employees will always need training in the individual company's methods, but anyone that has a good grasp of the fundamentals will do well. Introductions were made and as each member introduced themselves, they were asked to tell how many metal trades employees they had. There was also some discussion on how long employees stay with the companies. Not many are hiring right now, but there will be quite a few from the different companies that are retiring in the near future. Most average age of employees is 40-50 years. John Herrera commented that he likes the curriculum for the machining program. There was some discussion about the depth of training in geometric dimensioning and tolerancing. Bob said that GD&T is taught throughout several classes. Dr. Hays said we are always looking for suggestions from our advisory members. Jeff Wallick mentioned that to meet NIMS requirements, an advisory meeting must be conducted twice a year. Another meeting will be schedule around the October to November time frame. With no further business, the meeting was adjourned.

Recorder Signature: Debra L. Russell	**Date:** April 7, 2016	**Next Meeting:** Tenatively October 2016.

Advisory Committee Meeting Minutes

PROGRAM COMMITTEE NAME:	Machining Technology Program				
CHAIRPERSON:	John Cunningham				
MEETING DATE:	17-Nov-15	**MEETING TIME:**	2:00 p.m.	**MEETING PLACE:**	East Campus - Manufacturing Education Center, Room 104
RECORDER:	Debra Russell			**PREVIOUS MEETING:**	10-Mar-15

COMMITTEE MEMBERS

List all members of the committee, then place an X in the box left of name if present

	NAME	TITLE	EMPLOYER INFO	PHONE	EMAIL
	Kenneth Baltez	Machinist	CDS Industrial	(806) 372-8930	waterjet@cdsindustrial.com
X	John Cunningham	Production Manager	Amarillo Gear Co.	(806) 676-9131	jcunningham@amarillogear.com
X	LeAnn Estep	Director, Career & Technical	Amarillo ISD	(806) 326-1319	leann.estep@amaisd.org
X	David Gibson	Instructor	Amarillo ISD - Caprock High School	(806) 326-7934	david.gibson@amaisd.org
X	Chad Henderson	Machine Shop Supervisor	ASARCO, LLC	(806) 468-4004	chenderson@asarco.com
X	John Herrera	Craft Supervisor	Pantex	(806) 477-3413	jherrera@pantex.com
X	Shelby Sumpter	Territory Productivity Engineer	Sandvik Coromant Co.	(806) 500-5382	shelby.sumpter@sandvik.com
	Greg Hudspeth	Vice President	City Machine	(806) 358-7293	ghudspeth@cmwelding.com
	Chris Kerbo	Manager	Titan Specialties	(806) 665-3781	ckerbo@titanspecialties.com
X	John Mitchell	Machining & Welding Supervisor	TASCO	(806) 335-2301	john-mitchell@tyson.com
	Jarred Morland	General Manager	CDS Industrial	(806) 372-8930	jaredm@cdsindustrial.com
X	Ronnie Nemoede	Machinist	City Machine	(806) 358-7295	ronnie@cmwelding.com
	Chris Swenson	CEO	Swenson Machine	(806) 622-2730	chrisswenson@suddenlinkmail.com

EX-OFFICIO'S PRESENT

X	Marissa Cochran	DOL Grant	Amarillo College	(806) 584-4118	mmcochran@actx.edu
X	Robert Gustin	Instructor, Machining Technologies	Amarillo College	(806) 335-4332	rlgustin@actx.edu
X	Dr. Kim Hays	Chair, Manufacturing Tech Dept	Amarillo College	(806) 335-4366	kthays@actx.edu
X	Janice Johnston	DOL Grant	Amarillo College	(806) 467-3110	jmjohnston31@actx.edu
X	Debra Russell	Sr. Secretary, Mfg Tech Dept	Amarillo College	(806) 335-4390	dlrussell@actx.edu
X	Jerry Terry	Coordinator, Technical Core	Amarillo College	(806) 335-4280	jlterry@actx.edu
X	Jeff Wallick	Coordinator, Technical Trng	Amarillo College	(806) 335-4228	jwallick@actx.edu

AGENDA ITEM	ACTION DISCUSSION INFORMATION	RESPONSIBILITY
Old Business:	No old business	
Continuing Business:	No continuing business	
New Business:		
Welcome / Introductions		John Cunningham
Curriculum Decisions:		
Program Status		Bob Gustin / Dr. Kim Hays
Other:		
DOL Survey		Janice Johnston
Open Discussion		

KEY DISCUSSION POINTS	DISCUSSION
Old Business:	No old business
Continuing Business:	No continuing business
New Business:	John Cunningham opened the meeting with a welcome. Bob Gustin thanked everyone for coming and explained the importance of Advisory Committee meetings to NIMS. Amarillo College is only the second college in the State of Texas to be NIMS accredited and having the meetings are a key role in keeping that accreditation.
Welcome / Introductions	

Curriculum Decisions: Program Status	Bob told everyone that as of April 8, 2014, the Machining Technology program received its national accreditation by NIMS (National Institute of Metalworking Skills). The accreditation must be renewed every five years by passing a one-day onsite visit by representatives from NIMS.
	Bob explained that the Machining curriculum has not changed since the last committee meeting in March, but the ending focus for the students is NIMS Level I credentials. Bob's plan is to have each student to graduate with four Level I certificates. He passed out drawings for each project. When students make the NIMS projects, they are first graded by Bob and then each project has to also be sent out to two industry partners to be graded. Each industry partner has to visually inspect each student's part as well as sign an affivdavit that the part has passed that inspection. If the part has succesfully passed, notice is sent to NIMS and then students are allowed to take an online test on the NIMS website. John Cunningham said that he has personally graded several of the projects and the students are getting the quality instruction needed to make the parts they are.
	The Machining program has acquired some new equipment and installed new electrics on some of the existing equipment. There are now additional pieces for cylindrical grinding and tool & cutter grinding. Bob told that the students learn manual machining as well as some CNC (computer numerical control). Students must know manual machining well before they can get into CNC. During classes, for each project they make, students get the blueprint with a set of questions. The questions make them think about setup of the part (measurements, math, speeds and feeds, tolerances) and they are required to answer all questions correctly before they can start on the part.
	Enrollment is down a little, but there are about eight Machining students at different levels. Three will graduate in December, some are new to machining classes this semester and some are just starting in the core. Bob introduced Mr. Jerry Terry as the coordinator of the Technical Core. The core classes are common to most technical programs on the East campus and are where students get instruction for math, technical communications, an introduction class for layout and an electrical class. The current plan is to replace the core electrical class with another Machining class. Students are now required to supply their own tools. Kits are available through the Amarillo College Bookstore. Semesters are on an 8-wk block.
DOL Survey	Janice Johnston gave each member a survey to complete. They are for a grant sponsored by the Department of Labor . The focus of the grant was to enhance or redesign curriculum so that it would allow for an accelerated time period. The idea is that students could get a shortened certificate, find employment and then come back for an advanced award. The survey is a follow up to an initial focus group that began at the first of the grant in 2013. The grant is now in its last year. Feedback from the survey will be compiled by an outside entity and used to see how effective curriculum changes have been on producing the students that industry is pleased with.

Open Discussion	Most of the members agreed that because of the economy, business is slow. There was an inquiry to members who had hired any of the Machining students, if there was anything that needed to be focused on as what they are learning in classes? All agreed that experience is the main item that the students would be lacking. There was some discussion about Six Sigma and quality control. Most members agreed that the machinist/operator is becoming more involved in quality control, but it is more of an administrative/engineer/journeyman level task. There was some discussion about the Machining program at Caprock High School. There is an entry level course and an advanced level course. The advanced students have been coming to the East Campus Machining program to use the equipment. There was also some discussion about House Bill V and how it is restructuring the classes that are taught in high schools based upon career clusters and the plan of study that each child selects. Jeff Wallick mentioned that he is making a recruiting video with clips of every program out here on the East Campus. There was also some discussion about ideas that Jeff could use when he is out recruiting. It was mentioned that the machining trade is very high in demand but most do not know about it. Bob explained that he is working on teaching soft-skills and getting students to understand the importance of being to work on time, having good work ethics, always wearing their uniform and safety glasses, etc... Bob said the students are entry-level when they complete the program so that the different companies can then teach them the advanced skills required for their particular business. There was some discussion about how or where the industry partners learned the math necessary to do machining. All members agreed that they learned math for machining by hands-on application. Dr. Hays explained that many students have the problem of transitioning the skills they learn in the classroom and being able to apply them to the lab. The East Campus is planning to change the math class to make it more of an "applied" math that requires more lab time. All advisory members were in agreement of this plan.

Recorder Signature: Debra L. Russell	**Date:** November 17, 2015	**Next Meeting:** Tenatively April 2016.

Automotive/Diesel Changes

1. Revise AUMT.AAS Curriculum
2. Revise AUMT.CERT.PTRN Curriculum
3. Revise DEMR.CERT Curriculum
4. Revise DEMR.CERT.DT Curriculum

Amarillo College Curriculum Committee Form

Program Changes – Revise AUMT.AAS Curriculum

Program Division: Technical Education
Department: Automotive Technology
Program Point of Contact: Brian Jacob, Program Coordinator (806-335-4219)
Date of Submission: 5/13/2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	WECM CIP 23.1303
Associated Study Area Identify primary program associated with course	Automotive Technology
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Automotive Technology (A.A.S.)
Degree Audit Name (e.g. AERM.AAS)	AUMT.AAS
Reason/Justification for Request: Removal of local needs course from curriculum.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: None	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Add/remove special topics/local needs courses

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM		PROPOSED CURRICULUM	
Degree Name:	**Automotive Technology (A.A.S.)**	**Degree Name:**	**Automotive Technology (A.A.S.)**
Total Credit Hours:	**60**	**Total Credit Hours:**	**60**
Total Clock Hours:	**1,536**	**Total Clock Hours:**	**1,536**

CURRENT General Education Curriculum (If Applicable)

Total Hours = INSERT HOUR NUMBER FOR GENERAL EDUCATION

If you type in a specific general education course request below, please provide justification in notes box.

Foundational Area	**Course Prefix and Number** (If Applicable)	**Course Name** (If Applicable)	**Credit Hours**
Communication	ENGL 1301	Composition I	3
Social and Behavioral Sciences			3
Mathematics			3
Philosophy & Culture or Creative Arts			3
Institutional Requirements		Speech	3

PROPOSED General Education Curriculum (If Applicable)

Total Hours = INSERT HOUR NUMBER FOR GENERAL EDUCATION

If you type in a specific general education course request below, please provide justification in notes box.

Foundational Area	**Course Prefix and Number** (If Applicable)	**Course Name** (If Applicable)	**Credit Hours**
Communication	ENGL 1301	Composition I	3
Social and Behavioral Sciences			3
Mathematics			3
Language, Philosophy & Culture or Creative Arts			3
Institutional Requirements		Speech	3

CURRENT Major Course Requirements Hours = INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS		
Course Prefix and Number	**Course Name**	**Credit Hours**
AUMT 1305	Introduction to Automotive Technology	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension and Steering Systems	3
AUMT 1319	Automotive Engine Repair	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2313	Automotive Drive Train and Axles	3
AUMT 2317	Automotive Engine Performance Analysis I	3
AUMT 2325	Automotive Automatic Transmission and Transaxle	3
AUMT 2328	Automotive Service	3
AUMT 2334	Automotive Engine Performance Analysis II	3
AUMT 2337	Automotive Electronics	3

PROPOSED Major Course Requirements Hours = INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS		
Course Prefix and Number	**Course Name**	**Credit Hours**
	MOVED TO RELATED COURSE REQUIREMENTS	
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension and Steering Systems	3
AUMT 1319	Automotive Engine Repair	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2313	Automotive Drive Train and Axles	3
AUMT 2317	Automotive Engine Performance Analysis I	3
AUMT 2325	Automotive Automatic Transmission and Transaxle	3
AUMT 2328	Automotive Service	3
AUMT 2334	Automotive Engine Performance Analysis II	3
AUMT 2337	Automotive Electronics	3

CURRENT Major Course Option Hours = INSERT HOUR NUMBER FOR MAJOR COURSE OPTION REQUIREMENTS		
OPTION 1: CHOOSE X MANY OUT OF THESE CHOICES (Note: If multiple options exist, merge cells to indicate next option block)		
Course Prefix and Number	**Course Name**	**Credit Hours**
None		

PROPOSED Major Course Option Hours = INSERT HOUR NUMBER FOR MAJOR COURSE OPTION REQUIREMENTS		
OPTION 1: CHOOSE X MANY OUT OF THESE CHOICES (Note: If multiple options exist, merge cells to indicate next option block)		
Course Prefix and Number	**Course Name**	**Credit Hours**
None		

CURRENT Related Course Requirements Hours = INSERT HOUR NUMBER FOR RELATED COURSE REQUIREMENTS		
Course Prefix and Number	**Course Name**	**Credit Hours**
ELPT 1311	Basic Electrical Theory	3
~~ETWR 1371~~	~~Technical Communication~~	~~3~~
INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3

PROPOSED Related Course Requirements Hours = INSERT HOUR NUMBER FOR RELATED COURSE REQUIREMENTS		
Course Prefix and Number	**Course Name**	**Credit Hours**
ELPT 1311	Basic Electrical Theory	3
ETWR 1302	Introduction to Technical Writing	3
INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3
AUMT 1305	Introduction to Automotive Technology	3

Course Sequencing and Requirements Notes:
1st Year Second Semester and 2nd Year First Semester are interchangeable

NEW PROGRAM COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

Ensure the following:

- If AAS, 50-75% is drawn from common technical specialty identified by CIP and the rest made up of 15 general education course hours and support courses (must document if more academic required due to FOS or advisory committee)
- If AAS, 3 or fewer courses can be Special Topics or Local Needs; If Level 2 certificate, 2 or fewer courses can be Special Topics or Local Needs; If Level 1 certificate, 1 or no courses can be Special Topics or Local Needs
- If AAS or CERT, all curriculum must align with licensing/accrediting authority (if applicable)
- Lecture/Lab Hours must fall into allowable contact ranges (See Table 4.1 on pg. 33 number at bottom or 37 pdf of GIPWE)
- For WECM, the course sequencing must be arranged so students cannot enroll in a course and its pre-requisite in same term unless both courses can be delivered in a compressed format without an overlap of the two courses.
- Semesters (16 weeks and shorter) should not award more than one SCH per week of instruction.

1st Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
ETWR	1302	Introduction to Technical Writing	WECM	2	2	0	3	3
ELPT	1311	Basic Electrical Theory	WECM					3
INMT	1305	Introduction to Industrial Maintenance	WECM					3
MCHN	1343	Machine Shop Mathematics	WECM					3
AUMT	1305	Introduction to Automotive Technology	WECM					3

2nd Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
AUMT	1310	Automotive Brake Systems						3
AUMT	1316	Automotive Suspension and Steering Systems						3
AUMT	1345	Automotive Climate Control Systems						3
AUMT	2317	Automotive Engine Performance Analysis I						3
AUMT	2337	Automotive Electronics						3

2nd Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
AUMT	1319	Automotive Engine Repair						3
AUMT	2313	Automotive Drive Train and Axles						3
AUMT	2325	Automotive Automatic Transmission and Transaxle						3
AUMT	2328	Automotive Service						3
AUMT	2334	Automotive Engine Performance Analysis II						3

2nd Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
ENGL	1301	English Composition I						3
Social/Behavioral		From List						3
Mathematics		From List						3
Culture/Creative Arts		From List						3
Speech		From List						3

Amarillo College Curriculum Committee Form

Program Changes – Revise Curriculum

Program Division: Technical Education
Department: Automotive Technology
Program Point of Contact: Brian Jacob, Program Coordinator (806-335-4219)
Date of Submission: 5/13/2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	WECM CIP 23.1303
Associated Study Area Identify primary program associated with course	Automotive Technology
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Automotive Technology – Advanced Automotive Certificate
Degree Audit Name (e.g. AERM.AAS)	AUMT.CERT.PTRN
Reason/Justification for Request: Removal of local needs course from curriculum.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: None	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Add/remove special topics/local needs courses

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM			PROPOSED CURRICULUM	
Degree Name:	**Automotive Technology – Advanced Automotive Certificate**		**Degree Name:**	**Automotive Technology – Advanced Automotive Certificate**
Total Credit Hours:	**45**		**Total Credit Hours:**	**45**
Total Clock Hours:	**1,152**		**Total Clock Hours:**	**1,152**

CURRENT Major Course Requirements Hours = INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS			**PROPOSED Major Course Requirements Hours = INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS**		
Course Prefix and Number	**Course Name**	**Credit Hours**	**Course Prefix and Number**	**Course Name**	**Credit Hours**
AUMT 1305	Introduction to Automotive Technology	3		MOVED TO RELATED COURSE REQUIREMENTS	
AUMT 1310	Automotive Brake Systems	3	AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension and Steering Systems	3	AUMT 1316	Automotive Suspension and Steering Systems	3
AUMT 1319	Automotive Engine Repair	3	AUMT 1319	Automotive Engine Repair	3
AUMT 1345	Automotive Climate Control Systems	3	AUMT 1345	Automotive Climate Control Systems	3
AUMT 2313	Automotive Drive Train and Axles	3	AUMT 2313	Automotive Drive Train and Axles	3
AUMT 2317	Automotive Engine Performance Analysis I	3	AUMT 2317	Automotive Engine Performance Analysis I	3
AUMT 2325	Automotive Automatic Transmission and Transaxle	3	AUMT 2325	Automotive Automatic Transmission and Transaxle	3
AUMT 2328	Automotive Service	3	AUMT 2328	Automotive Service	3
AUMT 2334	Automotive Engine Performance Analysis II	3	AUMT 2334	Automotive Engine Performance Analysis II	3
AUMT 2337	Automotive Electronics	3	AUMT 2337	Automotive Electronics	3

CURRENT Major Course Option Hours = INSERT HOUR NUMBER FOR MAJOR COURSE OPTION REQUIREMENTS			**PROPOSED Major Course Option Hours = INSERT HOUR NUMBER FOR MAJOR COURSE OPTION REQUIREMENTS**		
OPTION 1: CHOOSE X MANY OUT OF THESE CHOICES (Note: If multiple options exist, merge cells to indicate next option block)			**OPTION 1: CHOOSE X MANY OUT OF THESE CHOICES** (Note: If multiple options exist, merge cells to indicate next option block)		
Course Prefix and Number	**Course Name**	**Credit Hours**	**Course Prefix and Number**	**Course Name**	**Credit Hours**
None			None		

CURRENT Related Course Requirements Hours = INSERT HOUR NUMBER FOR TECHNICAL CORE REQUIREMENTS				PROPOSED Related Course Requirements Hours = INSERT HOUR NUMBER FOR TECHNICAL CORE REQUIREMENTS		
Course Prefix and Number	**Course Name**	**Credit Hours**		**Course Prefix and Number**	**Course Name**	**Credit Hours**
ELPT 1311	Basic Electrical Theory	3		ELPT 1311	Basic Electrical Theory	3
~~ETWR 1371~~	~~Technical Communication~~	~~3~~		ETWR 1302	Introduction to Technical Writing	3
INMT 1305	Introduction to Industrial Maintenance	3		INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3		MCHN 1343	Machine Shop Mathematics	3
				AUMT 1305	Introduction to Automotive Technology	3

Course Sequencing and Requirements Notes:

1st Year Second Semester and 2nd Year First Semester are interchangeable

NEW PROGRAM COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

1st Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM /WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
ETWR	1302	Introduction to Technical Writing	WECM	2	2	0	3	3
ELPT	1311	Basic Electrical Theory	WECM					3
INMT	1305	Introduction to Industrial Maintenance	WECM					3
MCHN	1343	Machine Shop Mathematics	WECM					3
AUMT	1305	Introduction to Automotive Technology	WECM					3

2nd Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM /WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
AUMT	1310	Automotive Brake Systems						3
AUMT	1316	Automotive Suspension and Steering Systems						3
AUMT	1345	Automotive Climate Control Systems						3
AUMT	2317	Automotive Engine Performance Analysis I						3
AUMT	2337	Automotive Electronics						3

2nd Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM /WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
AUMT	1319	Automotive Engine Repair						3
AUMT	2313	Automotive Drive Train and Axles						3
AUMT	2325	Automotive Automatic Transmission and Transaxle						3
AUMT	2328	Automotive Service						3
AUMT	2334	Automotive Engine Performance Analysis II						3

Amarillo College Curriculum Committee Form

Program Changes – Revise DEMR.CERT Curriculum

Program Division: Technical Education
Department: Diesel Technology
Program Point of Contact: Brian Jacob, Program Coordinator (806-335-4219)
Date of Submission: 5/13/2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	WECM CIP 23.1303
Associated Study Area Identify primary program associated with course	Diesel Technology
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Diesel Technology – Basic Mechanics
Degree Audit Name (e.g. AERM.AAS)	DEMR.CERT
Reason/Justification for Request: Removal of local needs course from curriculum.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: None	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Add/remove special topics/local needs courses

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM			PROPOSED CURRICULUM	
Degree Name:	**Diesel Technology – Basic Mechanics Certificate**		**Degree Name:**	**Diesel Technology – Basic Mechanics Certificate**
Total Credit Hours:	**29**		**Total Credit Hours:**	**29**
Total Clock Hours:	**672**		**Total Clock Hours:**	**672**

CURRENT Major Course Requirements Hours = INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS			**PROPOSED Major Course Requirements Hours = INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS**		
Course Prefix and Number	**Course Name**	**Credit Hours**	**Course Prefix and Number**	**Course Name**	**Credit Hours**
AUMT 1305		3		MOVED TO RELATED COURSE REQUIREMENTS	
DEMR 1329	Preventative Maintenance	3	DEMR 1329	Preventative Maintenance	3
DEMR 1406	Diesel Engine I	4	DEMR 1406	Diesel Engine I	4
DEMR 2346	Advanced Heating, Ventilation & Air Conditioning (HVAC)	3	DEMR 2346	Advanced Heating, Ventilation & Air Conditioning (HVAC)	3
DEMR 2412	Diesel Engine Testing & Repair II	4	DEMR 2412	Diesel Engine Testing & Repair II	4

CURRENT Major Course Option Hours = INSERT HOUR NUMBER FOR MAJOR COURSE OPTION REQUIREMENTS			**PROPOSED Major Course Option Hours = INSERT HOUR NUMBER FOR MAJOR COURSE OPTION REQUIREMENTS**		
OPTION 1: CHOOSE X MANY OUT OF THESE CHOICES (Note: If multiple options exist, merge cells to indicate next option block)			**OPTION 1: CHOOSE X MANY OUT OF THESE CHOICES (Note: If multiple options exist, merge cells to indicate next option block)**		
Course Prefix and Number	**Course Name**	**Credit Hours**	**Course Prefix and Number**	**Course Name**	**Credit Hours**
None			None		

CURRENT Related Course Requirements Hours = INSERT HOUR NUMBER FOR RELATED COURSE REQUIREMENTS				PROPOSED Related Course Requirements Hours = INSERT HOUR NUMBER FOR RELATED COURSE REQUIREMENTS		
Course Prefix and Number	**Course Name**	**Credit Hours**		**Course Prefix and Number**	**Course Name**	**Credit Hours**
ELPT 1311	Basic Electrical Theory	3		ELPT 1311	Basic Electrical Theory	3
~~ETWR 1371~~	~~Technical Communication~~	~~3~~		ETWR 1302	Introduction to Technical Writing	3
INMT 1305	Introduction to Industrial Maintenance	3		INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3		MCHN 1343	Machine Shop Mathematics	3
				AUMT 1305	Introduction to Automotive Technology	3

Course Sequencing and Requirements Notes:

NEW PROGRAM COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

1st Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
ETWR	1302	Introduction to Technical Writing	WECM	2	2	0	3	3
ELPT	1311	Basic Electrical Theory	WECM					3
INMT	1305	Introduction to Industrial Maintenance	WECM					3
MCHN	1343	Machine Shop Mathematics	WECM					3
AUMT	1305	Introduction to Automotive Technology	WECM					3

2nd Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
DEMR	1329	Preventative Maintenance						3
DEMR	1406	Diesel Engine I						4
DEMR	2346	Advanced Heating, Ventilation & Air Conditioning (HVAC)						3
DEMR	2412	Diesel nEgine Testing & Repair II						4

Amarillo College Curriculum Committee Form

Program Changes – Revise DEMR.CERT.DT Curriculum

Program Division: Technical Education
Department: Diesel Technology
Program Point of Contact: Brian Jacob, Program Coordinator (806-335-4219)
Date of Submission: 5/13/2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	WECM CIP 23.1303
Associated Study Area Identify primary program associated with course	Diesel Technology
Planned Effective Date:	Term: Fall Year: 2016
Current Program Title (Written Out): (e.g. Aviation Maintenance Technology)	Diesel Technology – Advanced Mechanics
Degree Audit Name (e.g. AERM.AAS)	DEMR.CERT.DT
Reason/Justification for Request: Removal of local needs course from curriculum.	
Potential Impact on Current Students Enrolled in Certificate or Degree Programs: None	

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	
Has a substantial increase or decrease in the number of clock or credit hours awarded for successful completion of a program occurred (substantial defined as noticeable impact on time to completion)?	• No
Does this change involve a move from clock to credit hours?	• No
This change relates to the following items	• Add/remove special topics/local needs courses

COURSE SEQUENCING AND REQUIREMENTS – For Catalog

- ☐ On "Old" side, use Strikethrough to indicate course(s) no longer in curriculum
- ☐ On "New" side, use bold/red font to indicate new courses
- ☐ Remove blocks that do not apply (e.g. if there are no general education requirements for your major, you may delete that table).

CURRENT CURRICULUM	
Degree Name:	**Diesel Technology – Advanced Certificate**
Total Credit Hours:	**42**
Total Clock Hours:	**992**

PROPOSED CURRICULUM	
Degree Name:	**Diesel Technology – Advanced Certificate**
Total Credit Hours:	**42**
Total Clock Hours:	**992**

CURRENT Major Course Requirements Hours =
INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS

Course Prefix and Number	Course Name	Credit Hours
AUMT 1305		3
DEMR 1321	Power Train I	3
DEMR 1329	Preventative Maintenance	3
DEMR 1347	Power Train II	3
DEMR 1406	Diesel Engine I	4
DEMR 2331	Advanced Brake Systems	3
DEMR 2346	Advanced Heating, Ventilation & Air Conditioning (HVAC)	3
DEMR 2412	Diesel nEgine Testing & Repair II	4
DEMR 2432	Electronic Controls	4

PROPOSED Major Course Requirements Hours =
INSERT HOUR NUMBER FOR MAJOR REQUIREMENTS

Course Prefix and Number	Course Name	Credit Hours
	MOVED TO RELATED COURSE REQUIREMENTS	
DEMR 1321	Power Train I	3
DEMR 1329	Preventative Maintenance	3
DEMR 1347	Power Train II	3
DEMR 1406	Diesel Engine I	4
DEMR 2331	Advanced Brake Systems	3
DEMR 2346	Advanced Heating, Ventilation & Air Conditioning (HVAC)	3
DEMR 2412	Diesel nEgine Testing & Repair II	4
DEMR 2432	Electronic Controls	4

CURRENT Major Course Option Hours =
INSERT HOUR NUMBER FOR MAJOR COURSE OPTION REQUIREMENTS

OPTION 1: CHOOSE X MANY OUT OF THESE CHOICES
(Note: If multiple options exist, merge cells to indicate next option block)

Course Prefix and Number	Course Name	Credit Hours
None		

PROPOSED Major Course Option Hours =
INSERT HOUR NUMBER FOR MAJOR COURSE OPTION REQUIREMENTS

OPTION 1: CHOOSE X MANY OUT OF THESE CHOICES
(Note: If multiple options exist, merge cells to indicate next option block)

Course Prefix and Number	Course Name	Credit Hours
None		

CURRENT Related Course Requirements Hours = INSERT HOUR NUMBER FOR RELATED COURSE REQUIREMENTS				PROPOSED Related Course Requirements Hours = INSERT HOUR NUMBER FOR RELATED COURSE REQUIREMENTS		
Course Prefix and Number	**Course Name**	**Credit Hours**		**Course Prefix and Number**	**Course Name**	**Credit Hours**
ELPT 1311	Basic Electrical Theory	3		ELPT 1311	Basic Electrical Theory	3
~~ETWR 1371~~	~~Technical Communication~~	~~3~~		ETWR 1302	Introduction to Technical Writing	3
INMT 1305	Introduction to Industrial Maintenance	3		INMT 1305	Introduction to Industrial Maintenance	3
MCHN 1343	Machine Shop Mathematics	3		MCHN 1343	Machine Shop Mathematics	3
				AUMT 1305	Introduction to Automotive Technology	3

Course Sequencing and Requirements Notes:
1st Year Second Semester and 2nd Year First Semester are interchangeable

NEW PROGRAM COURSE SEQUENCING AND REQUIREMENTS – For WECM Submission/Advising

1st Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
ETWR	1302	Introduction to Technical Writing	WECM	2	2	0	3	3
ELPT	1311	Basic Electrical Theory	WECM					3
INMT	1305	Introduction to Industrial Maintenance	WECM					3
MCHN	1343	Machine Shop Mathematics	WECM					3
AUMT	1305	Introduction to Automotive Technology	WECM					3

2nd Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
DEMR	1329	Preventative Maintenance						3
DEMR	1406	Diesel Engine I						4
DEMR	2346	Advanced Heating, Ventilation & Air Conditioning (HVAC)						3
DEMR	2412	Diesel nEgine Testing & Repair II						4

2nd Year

1st Semester

Prefix (e.g. ENGL)	Number (e.g 1301)	Course Name	Course Type (ACGM/WECM)	Weekly Lecture Hrs.	Weekly Lab Hrs.	Weekly External Hours	Contact Hours (If Applicable)	Credit Hours
DEMR	1321	Power Train I						3
DEMR	1347	Power Train II						3
DEMR	2331	Advanced Brake Systems						3
DEMR	2432	Electronic Controls						4

Amarillo College Curriculum Committee Form

Course Changes – Delete a Course from the Inventory

Program Division: Academic Success Division
Department: English as a Second Language
Program Point of Contact: Carol B. Summers
Date of Submission: May 16, 2016

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): • ACGM – Use first 6 of "Approval Number" • WECM – Course Inventory CIP Number	**NOT APPLICABLE**
Associated Study Area Identify primary program associated with course	
Planned Effective Date:	**Term: ___Fall_____** **Year: ___2016_____**
Course Title (Written Out):	**ESL 0311 Speaking and Listening I** **ESL 0312 Grammatical Structure I** **ESL 0314 Reading I** **ESL 0315 Composition I** **ESL 0321 Speaking and Listening II** **ESL 0322 Grammatical Structure II** **ESL 0324 Reading II** **ESL 0325 Composition II** **ESL 0331 Speaking and Listening III** **ESL 0332 Grammatical Structure III** **ESL 0334 Reading III** **ESL 0335 Composition III**
Course Prefix and Number:	**See attached course listing**
Course Description:	**See attached courses listing**

Reason/Justification for Request:
(Considerations may include lack of transferability, lack of enrollment, ACGM/WECM changes, etc.)
These courses are no longer offered as academic or CE courses. These courses are offered under the Adult Education and Literacy department as non-funded courses. The ESL department will retain its Level 4 academic credit and continuing education course offerings and add developmental ESL courses for contact hour reimbursement for 2017. The Level IV ESL courses are paired with Level I certificate courses as co-requisites. Academic Success is seeking to clean-up its ESL course offerings and only retain those courses that directly support ESL students in Level 1 certificate programs linked to guided pathways and satisfy TSI requirements.

Potential Impact on Certificate or Degree Programs and Teach-Out Plan Related to Course Deletion:
No Impact. AC has not offered these courses since 2014.

Requested Information	Information Response
On this section, please delete out the options in the right column that do not apply. The answers you leave will be your response.	

Is this a core curriculum course?	• No • No
If you answered "No" above, do not answer this question. If you answered "Yes" above, identify the foundational component area.	

ESL 0311 - Speaking and Listening I

Add to Portfolio
Shhare
Print Course

ESL 0311 - Speaking and Listening I

Develop everyday conversational skills. Emphasis placed on vocabulary, pronunciation and simple sentence patterns.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0312 - Grammatical Structure I

Add to Portfolio
Shhare
Print Course

ESL 0312 - Grammatical Structure I

Emphasis placed on identifying parts of speech, capitalization and punctuation. Grammar usage practice through writing complete sentences

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0314 - Reading I

Add to Portfolio
Shhare
Print Course

ESL 0314 - Reading I

Study word attack using phonics. Emphasis placed on vocabulary building and reading comprehension of simple stories.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0315 - Composition I

Add to Portfolio
Shhare
Print Course

ESL 0315 - Composition I

Write and recognize simple sentences. Emphasis placed on correct subject-verb agreement, punctuation and capitalization.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0321 - Speaking and Listening II

Add to Portfolio
Shhare
Print Course

ESL 0321 - Speaking and Listening II

Develop and expand conversational and listening skills. Emphasis placed on vocabulary, pronunciation and the use of tenses.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0322 - Grammatical Structure II

Add to Portfolio
Shhare
Print Course

ESL 0322 - Grammatical Structure II

Emphasis placed on capitalization, punctuation and identification of the parts of speech. Grammar usage will be practiced through writing and proofreading.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0324 - Reading II

Add to Portfolio
Shhare
Print Course

ESL 0324 - Reading II

Continue to study phonics. Emphasis placed on comprehension and increasing vocabulary through usage.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0325 - Composition II

Add to Portfolio
Shhare
Print Course

ESL 0325 - Composition II

Write simple and compound sentences on a variety of subjects. Emphasis placed on adding details to sentences, subject-verb agreement and proofreading.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0331 - Speaking and Listening III

Add to Portfolio
Shhare

Print Course

ESL 0331 - Speaking and Listening III

Practice conversational and listening skill through class activities and practice. Emphasis placed on idioms and listening comprehension.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0332 - Grammatical Structure III

Add to Portfolio
Shhare

Print Course

ESL 0332 - Grammatical Structure III

Emphasis placed on identifying parts of speech in simple, compound and complex sentences. Grammar usage will be practiced through paragraph writing and proofreading.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0334 - Reading III

Add to Portfolio
Shhare

Print Course

ESL 0334 - Reading III

Emphasis placed on vocabulary building, word analysis skills and reading comprehension.

Hours (3 sem hrs; 3 lec, 2 lab)

ESL 0335 - Composition III

Add to Portfolio
Shhare
Print Course

ESL 0335 - Composition III

Write expanded simple, compound and complex sentences to create a paragraph. Emphasis placed on organizing major points and details, writing and recognizing topic sentences, and proofreading.

Hours (3 sem hrs; 3 lec, 2 lab)

0

Amarillo College Curriculum Committee Form

Other Issues

Program Division: Office of VPAA
Department:
Program Point of Contact: Becky Burton
Date of Submission: 5/9/16

Requested Information	Information Response
Associated 6-digit CIP (If Applicable): Use the CIP for the majority of the courses within the program • ACGM – varies • WECM – varies	
Associated Study Area General Studies Pathways	
Planned Effective Date:	Term: Fall Year: 2016
Please Explain Your Issue (include any prefixes, program titles, etc. in narrative): Add pathways to the catalog under general education degree plan	
Reason/Justification for Request:	

Sample Changes

- General education degree will be changed to reflect the following pathways
  - Arts & Humanities
  - STEM
  - Business & Industry
  - Healthcare

GEN ED BLOCK – (STEM) – 60 hrs. AS –	
1ST Semester – 14-hrs	**2nd Semester** – 13 hrs.
8-weeks class Social/Behavioral Science (3 hrs.) EDUC 1100 (if not completed) 16-week classes MATH 1414 2nd 8-weeks class ENGL 1301 CA (3hrs)	1st 8-weeks class MATH 1316 16-week class ENGL 2311 HIST 1301 2nd 8-weeks class CHEM 1311 CHEM 1111
3rd Semester – 16 Hrs.	**4th Semester** – 18 hrs.
1st 8-weeks class HIST 1302 16-week class CHEM 1312 CHEM 1112 MATH 2413 2nd 8-weeks class LPC 3 hr	1st 8-weeks class GOVT 2305 16-week class 12 hrs STEM electives in emphasis area 2nd 8-weeks class GOVT 2306

The Multidisciplinary Endorsement
AS pathway – STEM focused

- Course options built for MATH or SCIENCE focus (traditional MATH or BIOLOGY majors)
- Optimized for transferability to AC 4 top

GEN ED BLOCK – (BUSINESS & INDUSTRY) – 60 hrs. AS –	
1st Semester – 13 hrs.	**2nd Semester** – 15 hrs.
1st 8-weeks class BCIS 1305** EDUC 1100 (if not completed) 16-week classes MATH 1324 ECON 2301** (Social/Behavioral) 2nd 8-weeks class SPCH 1321 **Marketable Skills Certificate in Business & Industry** Articulated Credit from High School (BUSG 1315, ACNT 1303) + Dual Credit** (BCIS 1305, ECON 2301)	1st 8-weeks class ENGL 1301 HIST 1301 16-week class MATH 1325 ACCT 2301 2nd 8-weeks class BUSI 2301 **Level One Certificate in Business & Industry (28 hrs.)** Jobs – bookkeeper, receptionist, office manager for small business, etc.
3rd Semester – 16 hrs.	**4th Semester** – 16 hrs.
1st 8-weeks class ENGL 1302 or ENGL 2311 HIST 1302 16-week class BIOL 1408 ACCT 2302 2nd 8-weeks class GOVT 2305	1st 8-weeks class LPC (3 hrs.) Creative Arts (3 hrs.) 16-week class BIOL 1409 ECON 2302 2nd 8-weeks class GOVT 2306

The Multidisciplinary Endorsement AS pathway – Business & Industry focused

- Course options built with BUSI focus, leading to a BBA degree
- Course options build from high school articulated/ dual credit options
- MSC may be completed while in high school or at end of 1st college semester
- Level One Certificate may be completed at end of 2nd

GEN ED BLOCK – HEALTH SCIENCES - AAS	
1st Semester – 18 hrs.	**2nd Semester**
1st 8-weeks class ENGL 1301 SPCH 1318 16-week class MATH 1314 and/or BIOL 2401 (program specific) 2nd 8-weeks class PSYC 2301 HUMA 1315 (Lang/Phil/Culture)	Apply for programs….

Health Science pathway

- Guided pathways from CMA/CNA to AAS degrees is currently under

GEN ED BLOCK –(ARTS & HUMANITIES) – 60- AS –	
1ST Semester – 13 hrs.	**2nd Semester** – 16 hrs.
1st 8-weeks class Social/Behavioral Science (3 hrs.) EDUC 1100 (if not completed) 16-week classes MATH 1332 2nd 8-weeks class ENGL 1301 HIST 1301	1st 8-weeks class SPCH 1318 ENGL 1302 or ENGL 2311 16-week class BIOL 1408 Elective (3 hr.) 2nd 8-weeks class HIST 1302
3rd Semester – 16-17 hrs.	**4th Semester** – 15-16 hrs.
1st 8-weeks class GOVT 2305 16-week class BIO Elective (3 hr.) Elective (3 hr.) 2nd 8-weeks class Creative Arts (3 hrs.)	1st 8-weeks class Elective (3 hr.) 16-week class ENGL 2322 (LPC credit) Elective (3 hr.) Elective (3 hr.) 2nd 8-weeks class GOVT 2306

The Multidisciplinary Endorsement
AA or AS pathway – Arts & Humanities focused

- **Currently under discussion:** students could complete 3-4 electives in a specific discipline and graduate with a degree + MSC which may serve as an "endorsement" or "specialization" for future employment. For example business/office skills, digital skills, etc.

Amarillo College

Amarillo College Dual Credit Handbook

A Policies and Procedures Manual for

Amarillo College Faculty

And Area School Districts

Contact:

Becky Burton
806-371-5122
bkburton@actx.edu
PO BOX 447
Amarillo, TX 79178

Program Description and General Information

The Dual-Credit Program is a cooperative partnership between a high school and Amarillo College through which a student may be awarded both college and high school credit in courses that meet the requirements of both institutions. Students who meet specific eligibility requirements of both the high school and Amarillo College will be permitted to enroll in those Amarillo College courses specified in the dual-credit agreement and to simultaneously earn credit toward high school graduation and college credit.

Dual Credit is governed by rules of the Texas Higher Education Coordinating Board, the Texas Education Agency and Amarillo College.

Dual credit courses may be offered at the high school by qualified high school teachers, or may be taken online with an Amarillo College faculty member. Regardless of delivery method all instructors of record must meet the minimum requirements of the Southern Association of Colleges and Schools Accrediting Agency. This is usually defined as a master's degree that includes 18 graduate hours in the specific discipline being taught.

Before courses are offered to students a dual credit agreement must be place. This agreement will be approved by the Superintendent of the ISD and the Vice-President of Academic Affairs of Amarillo College based on the recommendations of the appropriate departmental individuals in each institution.

Amarillo College Dual Credit Guidelines

A dual credit program presents unique opportunities and challenges. The high school and Amarillo College will work together to provide an optimum learning experience for dual credit students.

There are two basic models for delivery of dual credit content:

I. Option 1- The course is taught at the high school by a qualified high school faculty. The instructor must meet all the qualifications for a faculty teaching each respective course and be approved by the appropriate Amarillo College department.

The Amarillo College dual credit coordinator for each discipline will work with the appropriate high school faculty to determine the learning outcomes necessary to meet the essential requirements to ensure a college level curriculum is delivered. The dual credit coordinator will also make yearly visits to the classroom

High school teachers will:

use a departmental approved syllabus,
follow all departmental guidelines provided to them by the dual credit coordinator,
participate in the same instructor/course evaluation procedures as all Amarillo College Faculty,
attend the yearly dual credit meeting,
use the agreed upon accountability measures,
use the Amarillo College grading scale, and
comply with all reporting requirements as directed by the Office of the Registrar.

In addition, all Amarillo College course must have an online presence. Blackboard training is available in CTL at 371-5993. Every course must at a minimum have an online course syllabus and grade book. All final grades are submitted to the registrar through Blackboard.

II. Option 2- The course is taught online by a qualified Amarillo College faculty with a high teacher who acts as a facilitator for the students. The majority of the course is taught online, with supplemental support given by the high school facilitator.

The AC faculty will:

attend the Annual Dual Credit meeting held in July or August and meet with facilitators of your course. Be prepared to address their questions and explain expected level of involvement,
work with the facilitator throughout the semester as needed,
develop and deliver all course content online (course should function as any other online course at Amarillo College), and
assign grades to all college level work to be used in determining the college grade.

The High School Facilitator of an Amarillo College Dual Credit course is responsible for supporting the teaching of an online course. The facilitator is highly beneficial to the success of the dual credit program. You are the daily personal contact, the face of Amarillo College, for the dual credit students.

The Facilitator will:

Provide students contact information to the instructor of record,
assist students in accessing their courses through BlackBoard,
support the instructor of record when dealing with students,
discuss school holiday and school closure dates with the instructor of record.

Additional information for the facilitator

1. The Instructor of Record is responsible for grading all student work that is to be used to establish the college grade in the course. (If there is an exception you will be informed.)
2. Facilitators may give supplemental assignments. These assignments are to be graded by the facilitator. Supplemental assignments will only count toward the high school grade in the course.
3. The facilitator is to follow the guidelines set by the instructor of record when providing assistance to students.
4. The facilitator is Amarillo College's quality control person. The facilitator can maintain college level quality by reporting any cheating or plagiarism to the college instructor. And by not providing excessive coaching or proofing of assignments.

III. Another option for college credit is concurrent enrollment. Concurrent enrollment allows qualified students to enroll at Amarillo College and take courses outside of their high school courses. Students earn college credit, but no high school credit is awarded. Concurrent enrollment tuition and fees follow the regular fee chart and are not offered at the reduced dual credit rate.

Dual Credit Process

To enter the Dual Credit Program with Amarillo College, a student must go through several steps. They are as follows:

1. Determine if the high school's requirements for dual credit are met by talking to the high school counselor.
2. Determine the Texas Success Initiative (TSI) Guidelines for admission into the Dual Credit program are met. This measure is based on testing. Students may be eligible for dual credit based on TAKS, EOC, PLAN, PSAT, ACT, or SAT. If these tests do meet TSI Guidelines, a student may take the TSI Assessment. See "Testing Requirements." The test used for eligibility must be on file with Amarillo College.
3. Complete a Texas Common Application for admission to Amarillo College. See "Apply for Admission." Completing an Application for admission **does not** enroll/register students for classes.
4. Register/Enroll for classes online.
5. Pay for classes. Dual Credit classes cost $50 per credit hour. Most dual credit classes are 3 hours, costing $150.

Dual Credit Registration

1. Log on to www.actx.edu.
2. Click on "AC Connect," left hand side of the page.
3. Enter your user name (ACNetID) and password. If you have never logged in to the site, or have forgotten your ACNetID and/or password, click on the red "HELP" button. Enter the required information, create a password, and answer the security questions. Once you get into AC Connect, look at the Self-Serve menu on the lower right side of the screen. Select the Current Student bar.
4. Click on "Registration", select Register for Sections.
5. Select Express Registration.
6. Input the 6 digit course ID/Synonym in the first column. Leave all other columns blank. Your high school should provide you with the ID numbers for your courses or go to Course Offerings by School on the Dual Credit Webpage, www.actx.edu/dualcredit.
7. Click Submit at the bottom of the page.
8. On the next screen, Register and Drop, click on the drop down menu in the Action column. Click on the Register option. Do this for each class.
9. Click Submit at the bottom of the page.
10. The "Registration Results" screen will appear. If the classes listed are correct, click "Okay" at the bottom of the page.
11. **Registration is complete.**
12. Classes must be paid for. You may go back to the "Current Student" page and select "Financial Information + Make a Payment" to pay by credit card or check. Or, you may call 806-371-5000 to pay by phone, credit card only. Or, you may pay in person on any of the Amarillo College campuses.

Dropping a Course

It is the responsibility of the student to officially drop or withdraw from a course. A grade of "W" will be given for student-initiated withdrawals that are submitted on or before the withdrawal deadline. Students must request a withdrawal from their instructor of record. Students may not withdraw themselves from a course. Withdrawal requests will not be accepted by telephone. Failure to withdraw by the deadline may result in a grade of "F" for the course. (Please refer to ACconnect, Self-Service, Current Student tab for "My Important Course Section Dates" to obtain withdrawal deadlines.)

Tuition/Fee Refunds

If a class does not materialize and is canceled by the College, 100 percent of all tuition and fees charged will be refunded. Students who officially withdraw from Amarillo College prior to the sixth day of class for full-length courses and by third class day for summer will be refunded 100 percent of their mandatory tuition and fees. If a transcript received by Amarillo College after a student has completed enrollment shows that the student is suspended at the last college attended, the student is subject to being withdrawn with forfeiture of all tuition and fees. Likewise, any student who provides false information regarding TSI testing or scores will be subject to withdrawal and forfeiture of tuition and fees.

Dual Credit Probation

A dual credit student whose semester grade-point average falls below a 2.0 will be placed on academic probation. Academic probation is effective for one semester. During that semester dual credit students will not be allowed to enroll in/take Amarillo College (AC) classes. After the probation semester, the student is eligible to once more take AC classes.

Scholastic Dishonesty

Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by Board policies. Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion. "Cheating on a test" shall include:

a. Copying from another student's test paper.
b. Using test materials not authorized by the person administering the test.
c. Collaborating with or seeking aid from another student during a test without permission from the test administrator.
d. Knowingly using, buying, selling, stealing, or soliciting, in whole or in part, the contents of an unadministered test.
e. The unauthorized transporting or removal, in whole or in part, of the contents of the unadministered test.
f. Substituting for another student, or permitting another student to substitute for one's self, to take a test.
g. Bribing another person to obtain an unadministered test or information about an unadministered test.

"Plagiarism" shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own written work. "Collusion" shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements.
Taken from the *"Students Rights and Responsibilities"*

Any student caught violating the Scholastic Dishonesty policy is subject to punishment.

Textbooks

Dual Credit students are responsible for obtaining the required textbooks for the course taken. Some schools provide certain textbooks. It is advised that students check with the high school teacher or facilitator before they purchase any books.