

Tri-County Technical College
Mechatronics Technology Program
Technical Advanced Placement (TAP)

Competency Verification and Teacher Recommendation Form

TCTC Course: IMT 161 (Mechanical Power Operations)

SECTION I (For the student)

Please read this form completely, including Section III, TAP Policies and Disclosure Information. Also, please note that a score of 80% or higher is required for successful completion of the TAP exam.

Please complete this section of the form and give it to your Mechatronics teacher.

Your Name (PLEASE PRINT): _____ Phone: _____

Address: _____ SSN: _____

City: _____ State: _____ Zip: _____

High School: _____ Grade: _____

SECTION II (For the teacher)

By placing my initials next to the appropriate competency statement listed on the back of this form, I verify that this student has mastered major competencies of IMT 161 (*Mechanical Power Operations*), as defined in the approved syllabus. I understand that in order to progress in the validation process for Technical Advanced Placement credit, *a minimum of 75 percent of the competencies must be verified*. Having met this requirement, I recommend this student be permitted to continue the validation process by completing the TAP exam, which I understand will be arranged through the Mechatronics Technology Program at Tri-County Technical College.

Teacher Name (PLEASE PRINT): _____

Signature: _____ Date: _____

Name of high school course(s) in which this student gained the required competencies for possible TAP credit:

Date of course completion or expected completion: _____

Comments (if applicable): _____

SECTION III - Technical Advanced Placement (TAP) Policies and Disclosure Information

1. It is the student's responsibility to provide the appropriate Tri-County Technical College curriculum program coordinator with all materials and documentation necessary to verify completion of TAP procedures.
2. The Tri-County Technical College program coordinator will keep accurate records to ensure that all College forms and processes associated with the awarding of academic credit are completed appropriately, and to ensure that the student's academic advisor is informed of his/her progress in completing TAP procedures.
3. The student will receive a copy of the Tri-County Technical College Advanced Standing Credit Form showing the courses for which he/she will receive credit.
4. When a student works with a College advisor to register for Tri-County Technical College courses, it is the student's responsibility to inform the advisor of any credit earned through TAP.
5. TAP credit earned will be documented as a grade of "E" on the student's official Tri-County Technical College transcript after he/she has been formally admitted to the College, has satisfactorily completed all TAP procedures, and has registered for one or more Tri-County Technical College courses. TAP credit will appear on his/her TCTC

transcript at the end of the first term in which the previous three conditions have been met. "E" grades earn credit hours but do not affect the grade point average.

6. TAP credit earned may apply to a required course(s) or an elective course(s) depending on whether or not the course is listed as required for a specific curriculum in the College catalog. If a student enters a program at Tri-County Technical College for which that course is not required, the student may use the credit as elective credit, with the program coordinator's permission.
7. TAP credit earned at Tri-County Technical College does not imply or guarantee that such credit will be honored by other institutions of higher education.
8. A high school student will have one year following the time of his/her high school graduation to complete TAP procedures.
9. A high school student who successfully completes TAP exams but who does not successfully complete all the other procedures will have one year to complete the procedures and receive credit.
10. The program coordinator (or designee) may decide whether or not a student who does not successfully complete a TAP exam is eligible to retake the exam.
11. A high school student who takes a TAP exam will have his/her score kept on file in the appropriate department office for one year following the test date. A student who has completed TAP but who has not been admitted or enrolled will have his/her Advanced Standing Credit Form kept on file for one year.
12. All TAP exams will be developed, administered, and scored by Tri-County Technical College faculty and/or staff.

COMPETENCIES (please initial each one)

- _____ 1. Identify different types of bearings and the functions of each type.
- _____ 2. Demonstrate the proper application and installation of bearings.
- _____ 3. Identify different types of belt drives and the functions of each type.
- _____ 4. Demonstrate the proper application and installation of belt drives.
- _____ 5. Identify different types of chain drives and the functions of each type.
- _____ 6. Demonstrate the proper application and installation of chain drives.
- _____ 7. Identify different types of gears and the functions of each type.
- _____ 8. Demonstrate the proper application and installation of gears.
- _____ 9. Identify different types of clutches and brakes and the functions of each type.
- _____ 10. Demonstrate the proper application and installation of clutches and brakes.
- _____ 11. Identify different types of conveyors and the functions of each type.
- _____ 12. Identify specific pumps (centrifugal, reciprocating and rotary), their function and how each works.
- _____ 13. Explain basic hydraulic principles as they apply to pumps.
- _____ 14. Calculate the capacity, pressure and head values of a given pump.
- _____ 15. Identify special-purpose pumps (flexible tube pumps, progressive cavity pumps and seal-less magnetic-drive pumps) and how each operates.
- _____ 16. Remove and replace packing, gaskets and mechanical seals used in installed pumps.
- _____ 17. Perform alignment of installed pumps and correct coupling alignment procedures.
- _____ 18. Perform actions needed to order new pumps and new pump parts.

Please make a copy of this form for your records and mail the original to Ms. Tonia McClain, Engineering and Industrial Technology Division Office Manager, Tri-County Technical College, PO Box 587, Pendleton, SC 29670. (Questions regarding TAP procedures for IMT 161 should be directed to Mr. Bobby Watt, Mechatronics Instructor 646-1413.)

