



JOY HOFMEISTER

STATE SUPERINTENDENT OF PUBLIC INSTRUCTION
OKLAHOMA STATE DEPARTMENT OF EDUCATION

MEMORANDUM

TO: The Honorable Members of the State Board of Education

FROM: Joy Hofmeister

DATE: April 26, 2018

SUBJECT: Canadian Valley (Cowan and Yukon Campus) Technology Center Requesting Approval of Applications for Focus Fields of Study

The State Department of Education is requesting approval of the Canadian Valley (Cowan and Yukon Campus) Technology Center Requesting Approval of Application for Focus Fields of Career Study.

“Technology centers may offer programs designed in cooperation with institutions of higher education which have an emphasis on a focused field of career study upon approval of the State Board of Education and the independent district board of education. Students in the tenth grade may be allowed to attend these programs for up to one-half (1/2) of a school day and a credit for the units or sets of competencies required in paragraphs 2 and 3 of subsection B of this section shall be given if the courses are taught by a teacher certified in the secondary subject area.”
70 O.S § 11-103.6

Based on Title 70 §11-103.6.G.1, the State Board of Education shall “ensure that rigor is maintained in the content, teaching methodology, level of expectations for student achievement, and application of learning in all the courses taught to meet the graduation requirements.” The submitted application for Canadian Valley (Cowan and Yukon Campus) Technology Centers were reviewed based on three primary considerations to address this mandate:

1. the extent to which the course addresses the **necessary and appropriate content**
 - a. Evidence Reviewed: Alignment Study of Course Materials and Competencies to Oklahoma Academic State Standards
2. the extent to which the instructor is certified to provide **rigorous instruction** and ensures a **high level of expectations** for students
 - a. Evidence Reviewed: Course Description, Course Syllabus and Identification of

Properly Certified Instructor

3. the extent to which there is **application of learning**
 - a. Evidence Reviewed: Joint Program Agreements

For courses that provided all necessary documentation, each component was reviewed based on the submitted materials and has been rated as demonstrating either Insufficient Evidence or Sufficient Evidence. Where possible and appropriate, recommendations are provided to increase supporting evidence. Otherwise, an account of the provided evidence is summarized.

The attached reports indicate that the application has **Sufficient Evidence** across all three considerations. It is, therefore, our recommendation that **this Field of Study should be approved.**

The Oklahoma State Department of Education is thankful for the time and dedication of the applicant and especially to the guidance and support offered by Tina Fugate of the Oklahoma State Department of Career Technology.

RG/tr

attachment

Review of Canadian Valley Technology Center - Cowan and Yukon Campus' Academy Application

Date: April 26, 2018

Reviewed By: Robbyn Glinsmann, Director of Elementary Mathematics Education, and Megan Cannon, Director of Science and Engineering Education

Summary of Findings

The reviewed courses listed below were identified in the Application for Focused Field of Career Study in Pre-Engineering/Bio-Med as required or available to students at the Canadian Valley Technology Center - Cowan and Yukon Campus. Only those that are not offered exclusively in Career Technology centers or in conjunction with Redlands Community College were reviewed.

The application has provided sufficient evidence to satisfy all considerations and is approved to provide the mathematics and science content required by the identified Focus Field of Study to sophomores, juniors, and seniors of the cooperating partner schools. In particular, the following courses are approved: Algebra 2, Pre-Calculus, AP Calculus BC, AP Statistics, Pre-AP Chemistry, Anatomy & Physiology, AP Biology, AP Physics C - Electricity and Magnetism, AP Physics C - Mechanics, and General Physics.

Course Identified in Field of Study	Oklahoma Academic Standards Assurance	Syllabus	College Board Approval Letter ¹	Result
Algebra 2	Sufficient	Sufficient	-	Sufficient
Pre-Calculus	-	Sufficient	-	Sufficient
AP Calculus BC	-	Sufficient	Sufficient	Sufficient
AP Statistics	-	Sufficient	Sufficient	Sufficient
Pre-AP Chemistry	Sufficient	Sufficient	-	Sufficient
Anatomy & Physiology	-	Sufficient	-	Sufficient
AP Biology	-	Sufficient	Sufficient	Sufficient
AP Physics C - Electricity and Magnetism	-	Sufficient	Sufficient	Sufficient

¹ Applicable for College Board Advanced Placement courses only.

AP Physics C - Mechanics	-	Sufficient	Sufficient	Sufficient
General Physics	Sufficient	Sufficient	-	Sufficient
PLTW Principles of Biomedical Science	-	-	-	Review Not Required
PLTW Biomedical Innovation	-	-	-	Review Not Required
PLTW Human Body Systems	-	-	-	Review Not Required
PLTW Engineering Design and Development	-	-	-	Review Not Required
PLTW Medical Interventions	-	-	-	Review Not Required
PLTW Digital Electronics	-	-	-	Review Not Required <i>Previously approved for math credit if taught by a certified math instructor</i>
PLTW Introduction to Engineering Design	-	-	-	Review Not Required
PLTW Principles of Engineering	-	-	-	Review Not Required
PLTW Aerospace Engineering	-	-	-	Review Not Required
PLTW Computer Integrated Manufacturing	-	-	-	Review Not Required

Process

Based on Title 70 §11-103.6.G.1, the State Board of Education shall “ensure that rigor is maintained in the content, teaching methodology, level of expectations for student achievement, and application of learning in all the courses taught to meet the graduation requirements.” The submitted application for Canadian Valley Technology Center - Cowan and Yukon Campus was reviewed based on three primary considerations to address this mandate:

- 1) the extent to which the course addresses the **necessary and appropriate content**

- a) Evidence Reviewed: Oklahoma Academic Standards Assurance
- 2) the extent to which the instructor is certified to provide **rigorous instruction** and ensures a **high level of expectations** for students
 - a) Evidence Reviewed: Course Description, Syllabus and Identification of Certified Instructor
- 3) the extent to which there is **application of learning**
 - a) Evidence Reviewed: Joint Program Agreements

For courses that provided all necessary documentation, each component was reviewed based on the submitted materials and has been rated as demonstrating either *Insufficient Evidence* or *Sufficient Evidence*. Where appropriate, recommendations are provided to increase supporting evidence. Further, possible revisions are provided to indicate that they are not required but may be useful in increasing supporting evidence.

Consideration 1: Necessary and Appropriate Content

Algebra 2

- **Findings for Algebra 2:** The Oklahoma Academic Standards Assurance provides Sufficient Evidence regarding the coverage of necessary and appropriate content found in the new Oklahoma Academic Standards for Mathematics.

General Physics

- **Findings for General Physics:** The Oklahoma Academic Standards Assurance provides Sufficient Evidence regarding the coverage of necessary and appropriate content found in the new Oklahoma Academic Standards for Science.

Pre-AP Chemistry

- **Findings for General Pre-AP Chemistry:** The Oklahoma Academic Standards Assurance provides Sufficient Evidence regarding the coverage of necessary and appropriate content found in the new Oklahoma Academic Standards for Science.

Consideration 2: Rigorous Instruction and High Level of Expectations

Algebra 2

- **Findings for Algebra 2:** The Algebra 2 course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructors for Algebra 2 are certified appropriately in the state of Oklahoma.

Pre-Calculus

- **Findings for Pre-Calculus:** The Pre-Calculus course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructors for Pre-Calculus are certified appropriately in the state of Oklahoma.

AP Calculus BC

- **Findings for College Algebra:** The AP Calculus BC course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructors for AP Calculus BC are certified appropriately in the state of Oklahoma.
- **Considerations for AP Calculus AB:** Consider listing prerequisite courses on syllabus.

AP Statistics

- **Findings for AP Statistics:** The AP Statistics course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructors for AP Statistics are certified appropriately in the state of Oklahoma.

Pre-AP Chemistry

- **Findings for Physics 1:** The Pre-AP Chemistry course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructor for Pre-AP Chemistry is certified appropriately in the state of Oklahoma.

Anatomy & Physiology

- **Findings for College Physics:** The Anatomy & Physiology course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructor for Anatomy & Physiology is certified appropriately in the state of Oklahoma.

AP Biology

- **Findings for College Physics:** The AP Biology course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructor for AP Biology is certified appropriately in the state of Oklahoma.

AP Physics C- Electricity & Magnetism

- **Findings for College Physics:** The AP Physics C- Electricity & Magnetism course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructor for AP Physics C-Electricity & Magnetism is certified appropriately in the state of Oklahoma.

AP Physics C- Mechanics

- **Findings for College Physics:** The AP Physics C- Mechanics course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructor for AP Physics C-Mechanics is certified appropriately in the state of Oklahoma.

General Physics

- **Findings for College Physics:** The General Physics course description, syllabus, and teacher certification provides Sufficient Evidence regarding the expectation of rigorous instruction and ensures a high level of expectations for students. The proposed instructor for General Physics is certified appropriately in the state of Oklahoma.

Consideration 3: Application of Learning

- **Findings for Canadian Valley Technology Center - Cowan and Yukon Campus:** The copies of the Joint Program Agreements provide Sufficient Evidence regarding the expectation of application of learning.