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: June 25, 2015

SUBJECT: Approval of the Application for Focused Field of Career Study – Chisholm Trail Technology Center

The State Department of Education is requesting approval of the Chisholm Trail Technology Center's Application for Focused Field 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.

Career Technology Site: Chisholm Trail Technology Center

Partnering School District(s): Kingfisher, Lomega, Dover, Watonga

Partnering Higher Education Institutions(s): Southwestern Oklahoma State University

2500 North Lincoln Boulevard, Oklahoma City, OK 73105-4599 • (405) 521-3301 • Joy.Hofmeister@sde.ok.gov

careertech

Application for Focused Field of Career Study
Oklahoma State Board of Education

"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.

Date of Application: May 22, 2015

Career Technology Site Chisholm Trail Technology Center

Partnering School District(s) Kingfisher, Lomega, Dover, Watonga

Partnering Higher Education Institutions(s) Southwestern Oklahoma State University

Attachments Checklist

X___ Joint Program Agreement between the Career Technology Center and the participating school district(s).

X___ Signed Minutes evidencing local school board approval of focused field of career study by each participating partner school district(s).

X___ Documentation of Higher Education Involvement. (This may include but is not limited to meeting agendas and minutes.)

X___ Documentation of the mathematics and science courses meeting the *Oklahoma Academic Standards*. http://sde.state.ok.us

X___ Description of Plan of Study and Course Descriptions for the focused field of career study courses.

X___ Documentation that the mathematics and/or science teachers are certified in the secondary subject area they teach. (Copy of teacher certification.)

PRE-ENGINEERING ACADEMY

JOINT PROGRAM AGREEMENT

Dover High School and Chisholm Trail Technology Center, pursuant to 70 O.S. §5-117(c) enter into this Joint Program Agreement to provide the Pre-Engineering Academy to Dover students.

It is the intention of both parties to participate in the Pre-Engineering Academy, which will be taught at the Chisholm Trail campus. The Academy will provide an opportunity for sophomores, juniors and seniors from Dover High School to attend the Academy for the purpose of taking courses in mathematics, science and pre-engineering. Attached to this Agreement is a chart designating the grades of students and courses to be taught as part of the student's plan of study.

Students participating in the Academy will be jointly enrolled by Chisholm Trail Technology Center and Dover High School. Students who are admitted to the Academy will be required to follow the rules and regulations of Chisholm Trail Technology Center as outlined in the Student Handbook.

This Agreement, including Attachment 1, shall constitute the entire Agreement of the parties. This Agreement may only be modified or amended in writing and signed by both parties as representatives of the respective Boards of Education. This Agreement shall be subject to and interpreted according to Oklahoma law.

This Agreement shall become effective when approved by the Boards of Education of Chisholm Trail Technology Center and Dover Public Schools. A party may determine to terminate the Agreement at the end of the school year and shall provide written notification of such termination to the other party.

Chisholm Trail Technology Center, as the sponsoring organization, will:

- Provide students with rigorous, relevant, reality-based knowledge necessary to pursue engineering or engineering technology majors in college,
- Provide hands-on, project and problem-based teaching that adds rigor to technical learning and relevance to traditional academics,
- Meet state and national standards for mathematics, science and technology,

- Offer a complete career/technical concentration with emphasis on both mathematics and science, and
- Link demanding mathematics and science courses with quality academic/technical courses.

Dover Public Schools, as the cooperating partner, will:

- Permit qualified sophomores, juniors and seniors interested in the field of engineering to enroll in the Pre-Engineering Academy,
- Grant credit for mathematics, science and Pre-Engineering courses that meet the school's graduation and/or college preparatory requirements,
- Support a plan of study that allows sophomores, juniors and seniors to include academic standards and career education options that prepare the individual for the world of work and continuing education, and
- Inform students of the opportunity to receive high school college preparatory credit and college credit through participation in the Pre-Engineering Academy.

Approved by the Chisholm Trail Technology Board of Education
On the 13 day of April, 2015.

Mr. Max Thomas, Superintendent
Chisholm Trail Technology Center
283 State Highway 33
Omega, OK 73764

Approved by the Dover Public Schools Board of Education
On the 13th day of April, 2015.

Mr. Shannon Grimes, Superintendent
Dover Public Schools
201 N. Taylor
Dover, OK 73734

PRE-ENGINEERING ACADEMY

JOINT PROGRAM AGREEMENT

Watonga High School and Chisholm Trail Technology Center, pursuant to 70 O.S. §5-117(c) enter into this Joint Program Agreement to provide the Pre-Engineering Academy to Watonga students.

It is the intention of both parties to participate in the Pre-Engineering Academy, which will be taught at the Chisholm Trail campus. The Academy will provide an opportunity for sophomores, juniors and seniors from Watonga High School to attend the Academy for the purpose of taking courses in mathematics, science and pre-engineering. Attached to this Agreement is a chart designating the grades of students and courses to be taught as part of the student's plan of study.

Students participating in the Academy will be jointly enrolled by Chisholm Trail Technology Center and Watonga High School. Students who are admitted to the Academy will be required to follow the rules and regulations of Chisholm Trail Technology Center as outlined in the Student Handbook.

This Agreement, including Attachment 1, shall constitute the entire Agreement of the parties. This Agreement may only be modified or amended in writing and signed by both parties as representatives of the respective Boards of Education. This Agreement shall be subject to and interpreted according to Oklahoma law.

This Agreement shall become effective when approved by the Boards of Education of Chisholm Trail Technology Center and Watonga Public Schools. A party may determine to terminate the Agreement at the end of the school year and shall provide written notification of such termination to the other party.

Chisholm Trail Technology Center, as the sponsoring organization, will:

- Provide students with rigorous, relevant, reality-based knowledge necessary to pursue engineering or engineering technology majors in college,
- Provide hands-on, project and problem-based teaching that adds rigor to technical learning and relevance to traditional academics,
- Meet state and national standards for mathematics, science and technology,

- Offer a complete career/technical concentration with emphasis on both mathematics and science, and
- Link demanding mathematics and science courses with quality academic/technical courses.

Watonga Public Schools, as the cooperating partner, will:

- Permit qualified sophomores, juniors and seniors interested in the field of engineering to enroll in the Pre-Engineering Academy,
- Grant credit for mathematics, science and Pre-Engineering courses that meet the school's graduation and/or college preparatory requirements,
- Support a plan of study that allows sophomores, juniors and seniors to include academic standards and career education options that prepare the individual for the world of work and continuing education, and
- Inform students of the opportunity to receive high school college preparatory credit and college credit through participation in the Pre-Engineering Academy.

Approved by the Chisholm Trail Technology Board of Education
On the 13 day of April, 2015.

Mr. Max Thomas, Superintendent
Chisholm Trail Technology Center
283 State Highway 33
Omega, OK 73764

Approved by the Watonga Public Schools Board of Education
On the 13 day of April, 2015.

Mr. Bill Seitter, Superintendent
Watonga Public Schools
1020 N. Noble
Watonga, OK 73772

PRE-ENGINEERING ACADEMY

JOINT PROGRAM AGREEMENT

Kingfisher High School and Chisholm Trail Technology Center, pursuant to 70 O.S. §5-117(c) enter into this Joint Program Agreement to provide the Pre-Engineering Academy to Kingfisher students.

It is the intention of both parties to participate in the Pre-Engineering Academy, which will be taught at the Chisholm Trail campus. The Academy will provide an opportunity for sophomores, juniors and seniors from Kingfisher High School to attend the Academy for the purpose of taking courses in mathematics, science and pre-engineering. Attached to this Agreement is a chart designating the grades of students and courses to be taught as part of the student's plan of study.

Students participating in the Academy will be jointly enrolled by Chisholm Trail Technology Center and Kingfisher High School. Students who are admitted to the Academy will be required to follow the rules and regulations of Chisholm Trail Technology Center as outlined in the Student Handbook.

This Agreement, including Attachment 1, shall constitute the entire Agreement of the parties. This Agreement may only be modified or amended in writing and signed by both parties as representatives of the respective Boards of Education. This Agreement shall be subject to and interpreted according to Oklahoma law.

This Agreement shall become effective when approved by the Boards of Education of Chisholm Trail Technology Center and Kingfisher Public Schools. A party may determine to terminate the Agreement at the end of the school year and shall provide written notification of such termination to the other party.

Chisholm Trail Technology Center, as the sponsoring organization, will:

- Provide students with rigorous, relevant, reality-based knowledge necessary to pursue engineering or engineering technology majors in college,
- Provide hands-on, project and problem-based teaching that adds rigor to technical learning and relevance to traditional academics,
- Meet state and national standards for mathematics, science and technology,

- Offer a complete career/technical concentration with emphasis on both mathematics and science, and
- Link demanding mathematics and science courses with quality academic/technical courses.

Kingfisher Public Schools, as the cooperating partner, will:

- Permit qualified sophomores, juniors and seniors interested in the field of engineering to enroll in the Pre-Engineering Academy,
- Grant credit for mathematics, science and Pre-Engineering courses that meet the school's graduation and/or college preparatory requirements,
- Support a plan of study that allows sophomores, juniors and seniors to include academic standards and career education options that prepare the individual for the world of work and continuing education, and
- Inform students of the opportunity to receive high school college preparatory credit and college credit through participation in the Pre-Engineering Academy.

Approved by the Chisholm Trail Technology Board of Education
On the 13 day of April, 2015.

Mr. Max Thomas, Superintendent
Chisholm Trail Technology Center
283 State Highway 33
Omega, OK 73764

Approved by the Kingfisher Public Schools Board of Education
On the 6th day of April, 2015.

Mr. Jason Sternberger, Superintendent
Kingfisher Public Schools
602 W. Chisholm Dr.
Kingfisher, OK 73750

PRE-ENGINEERING ACADEMY

JOINT PROGRAM AGREEMENT

Lomega High School and Chisholm Trail Technology Center, pursuant to 70 O.S. §5-117(c) enter into this Joint Program Agreement to provide the Pre-Engineering Academy to Lomega students.

It is the intention of both parties to participate in the Pre-Engineering Academy, which will be taught at the Chisholm Trail campus. The Academy will provide an opportunity for sophomores, juniors and seniors from Lomega High School to attend the Academy for the purpose of taking courses in mathematics, science and pre-engineering. Attached to this Agreement is a chart designating the grades of students and courses to be taught as part of the student's plan of study.

Students participating in the Academy will be jointly enrolled by Chisholm Trail Technology Center and Lomega High School. Students who are admitted to the Academy will be required to follow the rules and regulations of Chisholm Trail Technology Center as outlined in the Student Handbook.

This Agreement, including Attachment 1, shall constitute the entire Agreement of the parties. This Agreement may only be modified or amended in writing and signed by both parties as representatives of the respective Boards of Education. This Agreement shall be subject to and interpreted according to Oklahoma law.

This Agreement shall become effective when approved by the Boards of Education of Chisholm Trail Technology Center and Lomega Public Schools. A party may determine to terminate the Agreement at the end of the school year and shall provide written notification of such termination to the other party.

Chisholm Trail Technology Center, as the sponsoring organization, will:

- Provide students with rigorous, relevant, reality-based knowledge necessary to pursue engineering or engineering technology majors in college,
- Provide hands-on, project and problem-based teaching that adds rigor to technical learning and relevance to traditional academics,
- Meet state and national standards for mathematics, science and technology,

- Offer a complete career/technical concentration with emphasis on both mathematics and science, and
- Link demanding mathematics and science courses with quality academic/technical courses.

Lomega Public Schools, as the cooperating partner, will:

- Permit qualified sophomores, juniors and seniors interested in the field of engineering to enroll in the Pre-Engineering Academy,
- Grant credit for mathematics, science and Pre-Engineering courses that meet the school's graduation and/or college preparatory requirements,
- Support a plan of study that allows sophomores, juniors and seniors to include academic standards and career education options that prepare the individual for the world of work and continuing education, and
- Inform students of the opportunity to receive high school college preparatory credit and college credit through participation in the Pre-Engineering Academy.

Approved by the Chisholm Trail Technology Board of Education
On the ___ day of _____, 20__.

Mr. Max Thomas, Superintendent
Chisholm Trail Technology Center
283 State Highway 33
Omega, OK 73764

Approved by the Lomega Public Schools Board of Education
On the 13 day of April, 2015

Mrs. Karen Castonuay, Superintendent
Lomega Public Schools
18319 N 2700 Rd
Omega, OK 73764

Dover Board of Education
Superintendent's Office, 201 North Taylor - Dover, OK
Monday, April 13, 2015
Regular Business Meeting

The April 13, 2015, regular meeting of the Dover Board of Education was called to order at 6:01 p.m. by Board President Nathan Guinn. Roll call was taken. Members present were: Guinn, Mike Moeller, Edith Preston and Larry Harviston. Shawn Walker was absent. Also present were: Shannon Grimes, Superintendent; Scott Cline, Elementary Principal; and Timberly Jech, Minutes Clerk.

Harviston made the motion, seconded by Preston to approve the minutes of the March 9, 2015 regular meeting. Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

Motion by Moeller, second by Harviston to approve the consent agenda. Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

No action for Activity Fund Transfers was necessary.

No Action needed to approve transfer of appropriated funds within the General Fund, Building Fund and/or Child Nutrition Fund in the original 2014-15 Temporary School Budget.

Motion by Moeller, second by Harviston to approve License Agreement with Employee Evaluation Systems, Inc for use of OKTLE web application for use with the teacher evaluation framework known as the Tulsa TLE Observation and Evaluation System for the 2015-16 school year. Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

Motion by Guinn, second by Preston to approve Contract with Precision Speech Therapy for speech pathology services for 2015-2016 school year. Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

Motion by Harviston, second by Moeller to approve Contract with Moore Therapy Services, Inc.for occupational therapy services for 2015-2016 school year. Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

Motion by Harviston, second by Moeller to approve Joint Program Agreement with Chisholm Trail Technology Center to provide the Pre-Engineering Academy to Dover Students for 2015-16 school year. Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

No action taken to approve School Calendar for 2015-16 school year.

Motion by Guinn, second by Moeller to adopt policy EGA on Curriculum Design. Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

Principal Cline gave his report.

Superintendent Grimes gave his report.

No New Business

Motion by Guinn, second by Harviston to convene into executive session at 6:37 p.m. to discuss the following: a. Hiring Robert Lancaster as a substitute bus driver at $13.75 per route for the 2014-15 school year b. Hiring an Elementary Teacher for the 2015-16 school year, so that the Board can return to open session to approve, not approve, or table the Superintendent's recommendation on the following: a. Hiring Robert Lancaster as a substitute bus driver at $13.75 per route for the 2014-15 school year b. Hiring an Elementary Teacher for the 2015-16 school year.

25 Oklahoma Statutes, Section 307 (B) (1).[25 O.S. Sec. 307 (B) (1)]

During the executive session the Board discussed the following: a. Hiring Robert Lancaster as a substitute bus driver at $13.75 per route for the 2014-15 school year b. Hiring an Elementary Teacher for the 2015-16 school year [25 O.S. Sec. 307 (B) (1) (B) (2)] The Board discussed these items and no other items. The President acknowledged the Board's return to open session at 7:21 p.m. All members were present except Shawn Walker during the executive session. This constitutes the minutes of the executive session.

Motion by Guinn, second by Harviston to accept letter of resignation with regret from Shavonn Heidlage.Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

Motion by Moeller, second by Preston to Hire Robert Lancaster as a substitute bus driver at $13.75 per route for the 2014-15 school year. Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

Motion by Guinn, second by Moeller to hire Leslie Helderich as an Elementary Teacher for the 2015-16 school year.Those voting were: Guinn, yes; Moeller, yes; Preston, yes; Harviston, yes; Motion carried 4-0.

Motion by Harvison, second by Moeller to adjourn at 7:25 p.m. Motion passed with Guinn, Moeller, Preston, and Harviston voting yes.

Respectfully submitted,

Nathan Guinn, Board President

Timberly Jech, Minutes Clerk

MINUTES
KINGFISHER BOARD OF EDUCATION
REGULAR MEETING- APRIL 6, 2015- 7:00 PM
BOARD OF EDUCATION BUILDING
602 W CHISHOLM DRIVE, KINGFISHER, OK 73750

PRESENT: Mike Copeland, Dana Golbek, David Diesselhorst, Mark Squires, Carly Franks, Jason Sternberger, Todd Overstreet, Stuart Purintun, Keith Campbell, Kathy Kadavy, Melissa Slezickey, A.J. Johnson, Jay Woods, Jeff Wegener of LWPB, Aarti Hartfield, William Hartfield, Scott Ulsaker, Pam Werner and Christine Reid of the Times and Free Press.

ABSENT: None

Meeting was called to order by President Mike Copeland at 7:00 p.m. The agenda was posted at the location of the meeting on Thursday, April 2, 2015 at 8:30 a.m. in accordance with file 25, O.S. Supplement 1978, Sec. 301-311 (open meeting act).

HONORS & RECOGNITIONS: Madison York received All State honors in Swimming, and Brett and Brady Smith received All State honors in Wrestling. Mr. Sternberger presented Scott Ulsaker with a plaque stating his appreciation for his dedication on serving on the Board.

MINUTES: Motion was made by David Diesselhorst to approve the minutes of March 2, 2015. Motion was seconded by Carly Franks and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

ENCUMBRANCES/REPORTS: Motion was made by Carly Franks to approve the following encumbrances and reports as attached: General Fund- #1902-#1937, Payroll- #70512-#70561, CO-OP Fund- #1251-#1252, Building Fund- #2134, Child Nutrition- #2216-#2217, Payroll- #70044-#70045, Insurance- #8610, Change Order Listings in General, CO-OP, Building, and Child Nutrition Funds, Treasurer's Report and Activity Fund Custodian's Report. Motion was seconded by Mark Squires and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

CONTRACTS: Motion was made by Dana Golbek to approve the following contracts as attached for the 2015-2016 school year: Employee Evaluation Systems, Moore Therapy Services, Youth & Family Services, and Clearwater Enterprises. Motion was seconded by David Diesselhorst and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

LWPB ARCHITECTS: Motion was made by Carly Franks to approve the architect plans as presented by Jeff Wegener for the QZAB projects. Motion was seconded by Mark Squires and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

BUS PURCHASE: Motion was made by Mark Squires to purchase a used 2013 bus and trade bus seven. Motion was seconded by David Diesselhorst and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

CHISHOLM TRAIL TECHNOLOGY PRE-ENGINEERING ACADEMY: Motion was made by David Diesselhorst to approve a contract as attached with Chisholm Trail Technology Center for a Pre-Engineering Academy. Motion was seconded by Dana Golbek and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

ANNUAL DROP OUT REPORT: Motion was made by Mark Squires to approve the annual drop out report as attached. Motion was seconded by Carly Franks and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

OUT OF STATE TRAVEL REQUEST: Motion was made by Carly Franks to approve an out of state travel request by Diann Magnus for vocal to travel to Branson, Missouri in the Spring of 2016. Motion was seconded by David Diesselhorst and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

FUNDRAISER REQUEST: Motion was made by Dana Golbek to approve the following fundraisers: Softball- Little League Tournament and MS Girls Basketball- Summer Camp. Motion was seconded by Mark Squires and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

SUPERINTENDENT'S REPORT: Mr. Sternberger reported that the school lunches have been well received by the students since starting with OPAA Food Services. He also stated there will be minor changes in the handbooks this year with a possibility of the high school students getting ID's. Mr. Overstreet stated that there might be changes to the Valedictorian and Salutatorian requirements. Pre-K enrollment is set for April 7th at Gilmour with transfers being reviewed at the June board meeting. The principals have attended three job fairs.

NEW BUSINESS: None

EXECUTIVE SESSION: None

RESIGNATIONS: Motion was made by Dana Golbek to accept the following resignations: Kim Conrady- Gilmour Secretary, Larry Hart- In School Detention, and Carmel Rose- Kindergarten Teacher. Motion was seconded by Carly Franks and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

EMPLOYMENT: Motion was made by Carly Franks to employ Makylah Endres and Allison Suttle. Motion was seconded by Mark Squires and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

Motion was made by Mark Squires to employ Micah Daugherty from part time to full time. Motion was seconded by Dana Golbek and carried. (Voting for: Copeland, Golbek, Squires and Franks- Abstained: David Diesselhorst- No: None).

ADJOURN: Motion was made by David Diesselhorst at 7:45 pm to adjourn. Motion was seconded by Mark Squires and carried. (Voting for: Copeland, Golbek, Diesselhorst, Squires, and Franks- No: None).

President

ATTEST:

Clerk

April 14, 2015

A quorum being established and the Open Meeting Law being complied with, the regular April meeting of the Lomega Board of Education was called to order at 7:00 p.m. on April 13, 2015 by President Marks with members Uhlenhake, Myers, Schnell and Freelander present. Also present were Superintendent Castonguay, Principal Mendell, and Minute Clerk Roberts.

A motion was made by Freelander, seconded by Uhlenhake to approve the agenda as part of the minutes. Motion carried 5-0.

A motion was made by Uhlenhake, seconded by Schnell to approve the March meeting minutes as read. Motion carried 5-0.

A motion was made by Schnell, seconded by Myers to review and approve General Fund encumbrances #246-276 and Payroll Encumbrances #70077-70078, Building Fund # 10-11 and Payroll Encumbrances #70005. Motion carried 5-0

A motion was made by Freelander, seconded by Schnell to approve the Treasurers, Budget, and Activity fund reports as presented. Motion carried 5-0.

A motion was made by Myers, seconded by Uhlenhake to employ Kevin Lewallen as summer driver's education instructor at a rate of $18.00 per hour (30 hours instruction and 6 hours driving per student) and charge $125.00 tuition per student. Motion carried 5-0.

A motion was made by Schnell, seconded by Uhlenhake to set the rate for reimbursable mileage at $.56/ per mile for fiscal year 2016. Motion carries 5-0.

A motion was made by Freelander, seconded by Uhlenhake to approve a summer remedial and reading program at the High School and Elementary. Motion carried 5-0.

A motion was made by Uhlenhake seconded by Schnell to accept a Contract with M.A.S.S. for student information service for FY 2015-2016. Motion carried 5-0.

There was no action taken to accept a Vocational Agriculture contract for 2015-2016 with the Oklahoma Department of Career and Technology as the contract was not available for review and vote.

A motion was made by Schnell, seconded by Myers to enter in a joint program agreement with Chisholm Trail Technology Center to provide pre-engineering academy offering HS math credit to students enrolled. Motion carried 5-0

Mr. Mendell gave the Elementary Principal's report, end of year calendar, end of year testing, and Fine Arts. The elementary had skating and it went well, they have a spring program coming up and upcoming student enrollment count.

Mrs. Castonguay gave the High School report on SWIM Meet Results, Raider Report, SR Play, JR Supper, testing, Sports Banquet, Track, Baseball, FFA Plant sales and attending State Convention and end of school activities.

A motion was made by Schnell, seconded by Uhlenhake to re-hire certified career teachers; Sandra Kramer, Gayla Hunt, LaRita Sipe, Donna Waters(elem tech director), Karen Gerber, Lisa Meier, Shannon Tisdale, Kevin Lewallen, Stephanie Guinn, Sara Lewallen, Racheal Lawrence, Ronnie Fry, and Margaret Stangl for FY 2015-2016. Motion carried 5-0

A motion was made by Myers, seconded by Freelander to re-hire probationary teachers; Lacey Meder, Justin Edsall, Stephanie Hansen, Amber Ramer, Brandi Mendell, and Alecia Duffy.

A motion was made by Schnell, seconded by Freelander to convene in executive session for review and possible vote to hire a 2nd Grade Teacher. Motion carried 5-0

Acknowledgement the Boards return to open session.

President Marks stated that only matters concerning the hiring of a 2nd Grade Teacher were discussed.

A motion was made by Freelander, seconded by Uhlenhake to hire Tiffany Landreth as 2nd Grade teacher. Motion carried 5-0

A motion was made by Freelander, seconded by Uhlenhake to accept the resignation of Danny Glover. Motion carried 5-0

A motion was made by Freelander, seconded by Schnell to convene in executive session for review and possible vote to hire a Maintenance/Janitor and a HS Janitor. Motion carried 5-0

Acknowledgement the Boards return to open session.

President Marks stated that only matters concerning the hiring of maintenance/ janitor were discussed.

A motion was made by Schnell, seconded by Freelander to hire Terry McGraw as Maintenance/Janitor. Motion carried 5-0

A motion was made by Myers, seconded by Freelander to hire Terry Wahling as HS Janitor. Motion carried 5-0

There was no new business to discuss.

A motion was made by Freelander, seconded by Uhlenhake to adjourn at 9:20 p.m. Motion carried 5-0.

Terry Marks

Brad Uhlenhake

Mike Myers

David Schnell

Nathan Freelander

WATONGA BOARD OF EDUCATION

MINUTES

APRIL 13, 2015

The Watonga Board of Education met in regular session on Monday, April 13, 2015 in the Board of Education Office located at 10th & N. Weigle, Watonga, OK. President Joyce Lucas called the meeting to order at 7:00 p.m. Board members answering roll call were Lane Edsall, Juan Valenzuela, Dwight McGee and Aaron Clewell. Also attending were Mr. Seitter, Bryan Pope, Robin Roof, David Smith, Jeanne Karns, Marcy Roof, Tonya Payne, Gwendolyn Poteat, Eric Warsinskey, Susan Brickman and Doris Ware. President Lucas declared a quorum in attendance to conduct business for the Watonga Public School.

Dwight McGee made the motion, seconded by Juan Valenzuela to approve minutes of the regular March 9, 2015 meeting. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried 5-0.

A motion was made by Dwight McGee, seconded by Juan Valenzuela to approve minutes of the Special Meeting of March 19, 2015. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried 5-0.

The Treasurer's report and budget information was presented by Mr. Seitter and also an up date on the construction projects. Mr. Seitter informed the Board of the following changes: Andrea Parker will move to the central office replacing Susan Brickman and Amber Shiplett will replace Andrea Parker as secretary at the Elementary and Debbie Cox will replace Amber Shiplett as a Teacher Assistant.

A motion was made by Aaron Clewell, seconded by Dwight McGee that the Consent Agenda as follows be approved:

a. General Fund Encumbrances #264-#283 - $41,201.52
b. Coop Fund Encumbrance #9 - $176.69
c. Activity Fund Report
d. Treasurer Report
e. Acknowledge Superintendent Receipt of the following Resignations:
    i. Dale Ortega
    ii. David Smith

Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes, The motion carried 5-0.

A motion was made by Lane Edsall, seconded by Aaron Clewell to approve the change in the WESPO Negotiated Agreement (copy attached) Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried 5-0.

Lane Edsall made the motion, seconded by Aaron Clewell to approve a new activity account #804 for the Three Rivers Basketball Conference. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried 5-0.

Juan Valenzuela made the motion, seconded by Lane Edsall to approve the Life Wize Program for the Middle School. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried 5-0.

A motion was made by Aaron Clewell, seconded by Dwight McGee to approve a contract with Moore Therapy Services for the 2015-16 school year. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. The motion carried 5-0.

Lane Edsall made a motion, seconded by Juan Valenzuela to approve an agreement with CTTC for a Pre-Engineering Academy. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried 5-0.

A motion was made by Lane Edsall, seconded by Aaron Clewell to approve a contract with OKTLE for online teacher evaluation. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. The motion carried 5-0.

Aaron Clewell made the motion, seconded by Dwight McGee to approve the change in the 2014-15 school calendar to determine make up of missed school days and to authorize compensation for hours worked by Doyle Phillips, LeeAnn Tindell, and Richard Trumbley on inclement weather days. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried 5-0.

The following School Board Policies were presented for approval:

i. BD-School Board Internal Organization
ii. BEA-School Board Meetings Agenda Preparation and Dissemination
iii. CKC-R2 Tornado Drills, Rules and Regulations

A motion was made by Aaron Clewell, seconded by Juan Valenzuela that the policies be approved. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. The motion carried 5-0.

At 8:12 p.m. Aaron Clewell made the motion, seconded by Dwight McGee that the Board convene in Executive Session to discuss compensation for assistant principal. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried 5-0.

At 8:34 p.m. President Lucas declared the Board had returned to open session.

Executive Minutes:

The following were in attendance in the Executive Session: Board members Lane Edsall, Juan Valenzuela, Dwight McGee, Aaron Clewell and Joyce Lucas. Also Mr. Seitter and Doris Ware. Discussion was on compensation for an assistant principal - no action was taken.

Aaron Clewell made a motion, seconded by Dwight McGee that the meeting adjourn. Edsall-yes; Valenzuela-yes; McGee-yes; Clewell-yes; Lucas-yes. Motion carried. The meeting adjourned at 8;35 p.m.

Aaron Clewell

Dwight McGee

Juan Valenzuela

Joyce Lucas

SWOSU
Southwestern Oklahoma State University
Department of
Engineering Technology

May 18, 2015

To Whom It May Concern,

I am writing on behalf of the Pre-Engineering program at Chisolm Trail Technology Center. I have known one of their instructors since he was a student here at SWOSU, and I have also been on their advisory board for two years.

During this time I have observed their hard work to serve students and encourage them in STEM disciplines. I am aware that this has resulted in several students moving on to major in engineering in college.

I support the expansion of this program to include a wider range of high school students into STEM programs.

Respectfully,

Mr. Brad Bryant
Instructor and Chair
Department of Engineering Technology
Southwestern Oklahoma State University

Documentation of CTTC Geometry course meeting the Oklahoma Academic Standards:

Essentials of Geometry

Identify Points, Lines, Planes, Rays, and Segments (5.1)
Use Midpoint and Distance Formulas (5.1)
Measure and Classify Angles- acute, right, obtuse, straight, congruent (2.1)
Constructions- congruent angles and segments; angle and segment bisectors (2.1)
Describe Angle Pair Relationships- complementary, supplementary, adjacent, linear, and vertical (2.2c)
Classify Polygons- convex, concave, equilateral, equiangular, regular, triangle, quadrilateral...n-gon (2.3a)
Find Perimeter, Circumference, and Area- use to determine unknown values using correct units of measure (2.3d)
Euclidean vs. non-Euclidean geometries (1.3)

Reasoning Proof

Use Inductive Reasoning- conjectures, counterexamples, logical arguments (1.1)
Analyze Conditional Statements- if-then forms, hypothesis, conclusion, negation, converse, inverse, contrapositive, biconditional (1.1, 1.2)
Use Deductive Reasoning (1.1)
Use Postulates and Diagrams (1.1, 1.2)

Parallel and Perpendicular Lines

Identify Pairs of Lines and Angles- parallel and skew lines; corresponding, alternate interior, alternate exterior, and consecutive angles (2.2a, 2.2c)
Use Pairs of Lines and Angles- prove lines are parallel deductively and algebraically (2.2a, 2.2c)
Use Parallel Lines, Transversals, and Angles- solve various real-life problems
Find and Use Slopes of Lines (2.2b, 2.2c, 5.1, 5.2a)
Write and Graph Equations of Lines (2.2b, 2.2c, 5.1, 5.2a)

Congruent Triangles

Apply Triangle Sum Properties- use interior and exterior sums to solve problems (2.3b)
Apply Congruence and Triangles- determine and verify relationships using algebraic and deductive methods (2.5a)
Prove Triangles Congruent by SSS, SAS, ASA, AAS, and HL (2.5a)
Use Congruent Triangles- determine unknown values such as angles, side lengths, perimeter or circumference, and area (2.5b)
Use Isosceles and Equilateral Triangles (2.3a, 2.3b, 2.3d)
Perform Congruence Transformations (5.2b)

Relationships within Triangles

Midsegment Theorem and Coordinate Proof (5.2a)
Construct and Use Perpendicular Bisectors (2.1. 2.3d)
Construct and Use Angle Bisectors of Triangles (2.1, 2.3d)
Construct and Use Medians and Altitudes (2.1, 2.3d)

Similarity

Ratios, Proportions, and the Geometric Mean (2.4a)
Use Proportions to Solve Geometry Problems (2.4b)
Problem Solving with Similar Polygons (2.4b)
Prove Triangles Similar by AA, SSS, SAS- use algebraic and deductive proofs (2.4a, 2.4b)
Perform Similarity Transformations (5.2b)

Right Triangles and Trigonometry

Apply the Pythagorean Theorem- use to find missing side lengths (3.1)
Use the Converse of the Pythagorean Theorem- use to determine acute, right and obtuse triangles and verify using algebraic and deductive proofs (3.1, 3.2)
Use Similar Right Triangles (2.4a)

Special Right Triangles - use 45-45-90 and 30-60-90 right triangles to solve problems and verify using algebraic and deductive proofs (3.2)
Apply the Sine, Cosine, and Tangent Ratio- use to solve real-world problems (3.3)

Quadrilaterals

Find Angle Measures in Polygons- use to solve problems and verify using algebraic and deductive proofs (2.3a, 2.3b, 2.3c, 2.3d)
Use Properties of Parallelograms- use to solve real-world problems (2.3a, 2.3c)
Show that a Quadrilateral is a Parallelogram (2.3a, 2.3c)
Properties of Rhombuses, Rectangles, and Squares- use to solve various problems (2.3a, 2.3c)
Use Properties of Trapezoids and Kites (2.3a, 2.3c)
Identify Special Quadrilaterals (2.3a, 2.3c)

Properties of Transformation

Translate Figures- use to solve problems in coordinate geometry (5.2b)
Perform Reflections and Rotations- use to solve problems in coordinate geometry (5.2b)
Apply Compositions of Transformations (5.2b)

Properties of Circles

Properties of Tangents- use to solve problems (2.6a, 2.6b)
Find Arc Measures (2.6a, 2.6b)
Apply Properties of Chords (2.6a, 2.6b)
Use Inscribed Angles and Polygons (2.6a, 2.6b)
Apply Other Angle Relationships in Circles (2.6a, 2.6b)
Find Segment Lengths in Circles (2.6a, 2.6b)
Write and Graph Equations of Circles (5.2a)

Measuring Length and Area

Areas of Triangles and Parallelograms- use to determine unknown values and identify appropriate unit of measure (2.3c, 2.3d)
Areas of Trapezoids, Rhombuses, and Kites- use to determine unknown values and identify appropriate unit of measure (2.6a, 2.6b)
Perimeter and Area of Similar Figures (2.6a, 2.6b)
Circumference and Arc Length- use to determine unknown values and identify appropriate unit of measure (2.6a, 2.6b)
Areas of Circles and Sectors- use to determine unknown values and identify appropriate unit of measure (2.6a, 2.6b)
Areas of Regular Polygons- use to determine unknown values and identify appropriate unit of measure (2.6a, 2.6b)

Surface Area and Volume of Solids

Explore Models- use model of a 3D figure from a 2D drawing; nets, blueprints, perspective drawings (4.3)
Explore Solids- identify, describe, and analyze polyhedra (4.1a)
Surface Area of Prisms and Cylinders- use to determine unknown values and correctly identify appropriate unit of measure (4.1a, 4.1b)
Surface Area of Pyramids and Cones- use to determine unknown values and correctly identify appropriate unit of measure (4.1a, 4.1b)
Volume of Prisms and Cylinders- use to determine unknown values and correctly identify appropriate unit of measure (4.1a, 4.1b)
Volume of Pyramids and Cones- use to determine unknown values and correctly identify appropriate unit of measure (4.1a, 4.1b)
Surface Area and Volume of Spheres- use to determine unknown values and correctly identify appropriate unit of measure (4.1a, 4.1b)
Explore Similar Solids- use ratios to determine unknown values such as angles, side lengths, perimeter or circumference of a face, area of a face, and volume (4.2)

Documentation of CTTC Algebra 2 course meeting the Oklahoma Academic Standards:

Systems of Linear Equations and Inequalities

Use a scatter plot to identify the correlation shown by a linear set of data. (3.1a, 3.2b)
Approximate the best-fitting line for a set of data. (3.1, 3.1b)
Use algebraic methods to solve linear systems using elimination and substitution. (2.2b)
Use linear systems to model real-life situations. (2.2a)
Use matrices to solve linear systems. (2.2b)
Graph linear inequalities in two variables. (3.1, 3.1b)
Graph a system of linear inequalities to find the solutions of the system. (2.2b)
Use systems of linear inequalities to solve real-life problems. (2.2a)
Use matrices (including Cramer's rule, inverse matrices, and row operations with augmented matrices) to solve linear systems. (2.2b)
Use graphing calculator to solve linear systems. (2.2b)
Solve systems of linear equations in three variables. (2.2b)
Use linear systems in three variables to model real-life situations. (2.2a)

Quadratic Functions

Use a scatter plot to identify the correlation shown by a quadratic set of data. (3.1a, 3.2b)
Approximate the best-fitting graph for a set of data. (3.1, 3.1b)
Find domain and range of quadratic functions using algebraic, interval, and set notations. (2.1d)
Graph quadratic functions and identify intercepts and extrema. (2.1a, 2.3a, 2.3b)
Factor quadratic expressions and solve quadratic equations by factoring. (2.3a)
Find zeros of quadratic functions. (2.3a, 2.3b)
Solve quadratic equations by finding square roots. (2.3a)
Use quadratic equations to solve real-life problems. (2.3c)
Solve quadratic equations with complex solutions and perform operations with complex numbers. (1.3a, 1.3b, 2.3a)
Solve quadratic equations by completing the square. (2.3a)
Solve quadratic equations using the quadratic formula. (2.3a)
Write quadratic functions given characteristics of their graphs. (2.3)
Use technology to find quadratic models for data. (2.3)

Polynomials and Polynomial Functions

Find domain and range of polynomial functions using algebraic, interval, and set notations. (2.1d)
Use properties of exponents to evaluate and simplify expressions involving powers. (2.6, 2.1b, 2.1c)
Use exponents and scientific notation to solve real-life problems. (2.6d)
Graph a polynomial function and identify intercepts extrema. (2.1a, 2.6b, 2.6c)
Add, subtract, and multiply polynomials. (2.1b, 2.1c, 2.6a)
Use polynomial operations in real-life problems. (2.6d)
Factor polynomial expressions. (2.6a)
Use factoring to solve polynomial equations. (2.6a, 2.6d)
Divide polynomials and relate the result to the remainder theorem and the factor theorem. (1.2a, 2.1b, 2.1c)
Find the rational zeros of a polynomial function. (2.6a, 2.6b, 2.6c)
Use polynomial equations to solve real-life problems. (2.6d)
Use the fundamental theorem of algebra to determine the number of zeros of a polynomial function. (2.6a, 2.6b).
Use the graph of a polynomial function to answer questions about real-life situations. (2.6d)
Use technology to find polynomial models for real-life data. (2.6d, 3.1a, 3.1b)

Powers, Roots, and Radicals

Evaluate *n*th roots of real numbers using both radical notation and rational exponent notation. (1.1a)
Use *n*th roots to solve real-life problems. (1.1a, 1.1b)
Use properties of rational exponents to evaluate and simplify expressions. (1.1a, 1.1b)
Use properties of rational exponents to solve real-life problems. (1.1a, 1.1b)
Perform operations with functions including power functions. (1.1a, 1.1b, 2.1b, 2.1c)
Find inverses of linear functions and graph. (2.1e)
Find inverses of nonlinear functions and graph. (2.1e)
Graph square root and cube root functions. (2.1a)
Use square root and cube root functions to find real-life quantities. (1.1a)
Solve equations containing radicals/rational exponents. (1.1a, 1.1b, 1.2b)
Use measures of central tendency and measures of dispersion to describe data sets. (3.2a, 3.2b, 3.2c, 3.2d)

Exponential and Logarithmic Functions

Use a scatter plot to identify the correlation shown by an exponential set of data. (3.1a, 3.2b)
Approximate the best-fitting graph for a set of data. (3.1, 3.1b)
Find domain and range of exponential and logarithmic functions using algebraic, interval, and set notations. (2.1d)
Graph exponential growth functions. (2.1a, 2.5a)
Use exponential growth functions to model real-life situations. (2.5a, 2.5c)
Graph exponential decay functions. (2.1a, 2.5a)
Use exponential decay functions to model real-life situations. (2.5a, 2.5c)
Use the number *e* as the base of exponential functions. (2.5a, 2.5b)
Use the natural base *e* in real-life situations. (2.5a, 2.5c)
Evaluate logarithmic functions. (2.5a, 2.5b, 2.5c)
Graph logarithmic functions. (2.1a, 2.5a)
Use properties of logarithms. (2.5c)
Use properties of logarithms to solve real-life problems. (2.5c)
Solve exponential equations. (1.1a, 1.1b, 2.1a, 2.5c)
Solve logarithmic equations. (1.1a, 1.1b, 2.1a, 2.6c)
Model data with exponential functions. (2.5c)
Model data with power functions. (2.5c)

Rational Equations and Functions

Find domain and range of rational functions using algebraic, interval, and set notations. (2.1d)
Write and use inverse variation models. (2.7d)
Write and use joint variation models. (2.7d)
Graph rational functions and identify intercepts and asymptotes. (2.7a, 2.7b, 2.7c)
Use the graph of a rational function to solve real-life problems. (2.7a, 2.7b, 2.7c, 2.7d)
Multiply and divide rational expressions. (1.2a, 1.2b)
Use rational expressions to model real-life quantities. (2.7d)
Add and subtract rational expressions. (1.2b)
Simplify complex fractions. (1.2b)
Solve rational equations. (2.7a, 2.7d)
Use rational equations to solve real-life problems. (2.7a, 2.7d)

Quadratic Relations and Conic Sections

Graph and write equations of parabolas. (2.4)
Use parabolas to solve real-life problems. (2.4)
Graph and write equations of circles. (2.4)
Use circles to solve real-life problems. (2.4)
Graph and write equations of ellipses. (2.4)
Use ellipses in real-life situations. (2.4)
Graph and write equations of hyperbolas. (2.4)
Use hyperbolas to solve real-life problems. (2.4)
Write and graph an equation of a parabola with its vertex at (h, k) and an equation of a circle, ellipse, or hyperbola with its center at (h, k). (2.4)
Classify a conic using its equation. (2.4)
Solve systems of quadratic equations. (2.2a, 2.2c)
Use quadratic systems to solve real-life problems. (2.2a, 2.2c)

Sequences and Series

Use and write sequences. (3.3)
Use the summation notation to write series and find sums of series. (3.3)
Write rules for arithmetic sequences and find sums of arithmetic series. (3.3)
Use arithmetic series in real-life problems. (3.3)
Write rules for geometric sequences and find sums of geometric series. (3.3)
Use geometric sequences and series to model real-life quantities. (3.3)
Find sums of infinite series. (3.3)
Use infinite geometric series as models of real-life quantities. (3.3)
Evaluate and write recursive rules for sequences. (3.3)
Use recursive rules to solve real-life problems. (3.3)

Statistics

Evaluate samples and calculate mean, median, mode, weighted average, range variance, and standard deviation. (3.2a, 3.2b)
Use Gaussian distribution to solve problems (3.2c)

Chisholm Trail Technology Center

PLTW PRE-ENGINEERING CAREER PLAN OF STUDY

Science, Technology, Engineering, Mathematics (SC) – SC001 Engineering and Technology

Name of Student: _____ High School: _____

Courses listed within this plan are options for recommended coursework. The student's plan should be individualized to meet his/her educational and career goals.

Educational levels to be considered (check all that apply): ___ *Work-based Learning* ___ *Apprenticeship* ___ *Military Training* ___ *Certificate/License* ___ *Associate Degree* ___ *Bachelor Degree* ___ *Professional Degree*

High School Component

HIGH SCHOOL / TECHNOLOGY CENTER *Indicates required for High School Graduation - 23 (*Local board policy may exceed 23.*)
**Indicates required for College Preparatory/Work Ready High School Graduation – 23. Meets Oklahoma's Promise Requirements.

Academic/Career Advisement Provided	Grade Level	English/ Language Arts * ** 4 units required	Math * 3 units required ** 3 units upper division math required	Laboratory Science * 3 units required ** 3 units upper division laboratory science required	History and Citizenship Skills/Social Studies * ** 3 units required	Other Elective and Required Courses * *2 units required of same Foreign or non-English Language, or 2 units of Computer Technology	Fine Arts/The Arts * 2 units required **1 unit required	Additional Unit *8 electives to total 23 units **7 electives to total 23 units	*Sample Occupations*
SECONDARY	9 ↓ 10 ↓ 11 ↓ 12	□ English/LA I* ** □ English/LA II* ** □ English/LA III* ** □ English/LA IV* ** □ _____ □ _____	□ Algebra I* □ Geometry □ Algebra II □ Trigonometry □ Pre-Calculus □ Calculus/AP Calculus □ Statistics Course - content and/or rigor equal to or above Algebra I & approved for college admission requirements: □ _____ □ _____	□ Biology I* □ Chemistry □ Physics Laboratory science course - content and/or rigor equal to or above Biology & approved for college admission requirements □ _____ □ _____	□ American History** (1 unit) □ Oklahoma History** (1/2 unit) □ U.S. Government** (1/2 unit) □ History □ Government □ Geography □ Economics □ Civics Course in Non-Western Culture & approved for college admission requirements □ _____	□ Computer Technology or Foreign Language □ Fine Arts or Speech	□ Music _____ □ Art _____ □ Drama _____ □ Speech _____ □ _____ □ _____	Previous courses or related career/tech education courses: □ Technology Education □ TechConnect □ Anatomy and Physiology □ Chemistry of Food □ Health Careers I – III and Capstone □ Nutrition & Wellness □ Additional math & science	■ Aerospace Engineer ■ Agricultural Engineer ■ Agricultural Technician ■ Application Engineer ■ Architectural Engineer ■ Biomedical Engineer ■ Biotech Engineer ■ CAD Technician ■ Chemical Engineer ■ Civil Engineer ■ Computer Engineer ■ Computer Programmer ■ Construction Engineer ■ Electrical Engineer ■ Electronics Technician ■ Geothermal Engineer ■ Manufacturing Engineer ■ Marine Engineer ■ Nuclear Engineer ■ Petroleum Engineer ■ Survey Technician ■ Systems Engineer

Technology Center Component

*Name of Student*_____

Career Cluster: Science, Technology, Engineering, Math
Career Pathway: SC001 Engineering and Technology

*Date of Change*_____ *(If Applicable)*

PLTW Pre-Engineering Career Major	Courses	Course Hours Possible	Course Hours Completed	Date Completed	Instructor's Initials
	Year 1				
Recommended Course Sequence	Introduction to Engineering Design (IED)	120			
	Principles of Engineering (POE)	120			
	College Preparatory Math Course*	120			
	College Preparatory Science Course*	120			
	Year 2				
	Digital Electronics (DE)	120			
	Engineering Design and Development (EDD)	120			
	College Preparatory Math Course*	120			
	College Preparatory Science Course*	120			
	Total Career Major Hours	960			

*These courses may be taken at CTTC or at sending high school. See CTTC Career Majors Booklet for qualifying courses.

Chisholm Trail Technology Center Career Major Certificate of Completion Earned: _____ **Date:** _____

Certifications:

		Date Passed:
☐ *Certification Test:*	_____	_____
☐ *Certification Test:*	_____	_____
☐ *Certification Test:*	_____	_____
☐ *Certification Test:*	_____	_____
☐ *Certification Test:*	_____	_____
☐ *Certification Test:*	_____	_____

NOTE: Interest Inventory Administered and Interpreted. Plan of Study Initiated for all learners.

Colleg omponent

COLLEGE/ UNIVERSITY

Cooperative Alliance – **Primary Partner:** Northern Oklahoma College (NOC);
Secondary Partners: Redlands Community College (RCC) and Oklahoma State University (OSU) Institute of Technology

Technology Center Alliance Credit

Technology Center Courses	Northern Oklahoma College Courses	Credit Hours	Semester Completed	Initialed by Instructor

POSTSECONDARY

COLLEGE/ UNIVERSITY – Note Semester Completed

13	☐ English Comp I _____ ☐ English Comp II _____ ☐ _____ ☐ _____	☐ College Algebra _____ ☐ _____ ☐ _____	☐ Chemistry _____ ☐ _____ ☐ _____	☐American Government _____ ☐Psychology _____ ☐ _____ ☐ _____ ☐ _____	General Ed Electives: ☐General Psychology _____ ☐Principles of Sociology _____ ☐Microbiology _____ ☐General Chemistry _____ ☐ _____ ☐ _____
14	☐Speech/Oral _____ ☐Communications _____ ☐Technical Writing _____ ☐ _____ ☐ _____	☐Computer Concepts _____ ☐ _____ ☐ _____	☐Biological Science _____ ☐ _____ ☐ _____	☐American History _____ ☐ _____ ☐ _____	Continue Courses in the Area of Specialization: ☐ _____ ☐ _____
15	Continue courses in your area of specialization				
16	Complete Major (4-Year Degree Program)				

Additional I. .rmation

This career plan should be updated on a continuous basis by both the student and the instructor. Initials and dates of achievements or comments should be included on all information.

Awards/Honors:

Organizations/Offices/Community Service:

Additional Certifications Earned:

Comments:

Opportunities for experience/training for high school or postsecondary learner:

____Career and Technology Education student organization ____ Internship/work study ____Job shadowing ____ Part-time employment
____Volunteer work in charitable/community organizations ____Work based/work site learning ____Mentorship

(Student Signature) (Parent/Guardian Signature – High School Students Only) (Tech Center Instructor/Advisor Signature)

Dates: Freshman review_____ Sophomore review_____ Junior review_____ Senior review_____ Grade 13 review_____ Grade 14 review_____

Revised: 2014

Science Course Offerings

Students in the Pre-Engineering Academy at Chisholm Trail Technology Center

Take their Science Courses at their Home School at this time.

In the future, Chisholm Trail Technology Center will be hiring a Science Instructor in

Order for those courses to be offered on their campus.

Introduction to Engineering Design (IED)

Syllabus

Instructor: Mr. Randy Overton
roverton@cttc.edu
405-729-8324

Course Description: Introduction to Engineering Design™ (IED) is a high school level, one semester course intended for students who are interested in design and engineering. The major focus of the IED course is to expose students to design processes, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation.

Students will employ engineering and scientific concepts in the solution of engineering design problems. In addition, students will use a state of the art 3D solid modeling design software package to help them design solutions to solve proposed problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course. Students will also learn how to document their work and communicate their solutions to their peers.

Units of Study:

Design Process
Technical Sketching and Drawing
Measurement and Statistics
Modeling Skills
Geometry Design
Reverse Engineering
Documentation
Advanced Computer Modeling
Design Team
Design Challenges

CTTC Grading Scale:

A	Excellent	100- 90
B	Superior	89 - 80
C	Average	79 - 70
D	Below Average	69 - 60
F	Failing	59 - 0

I Incomplete
WP Withdrew Passing—Withdrew with a grade of 60 or better
WF Withdrew Failing—Withdrew with a grade of 59 or below

Overall student grade for IED will be computed in the following manner:
Tests- 30% Projects- 30% Daily Work- 40%

Classroom Procedures

Positive classroom behavior is expected at all times as outlined in the student handbook.

- **Tardiness and Absences-** (See student handbook pages 33-34 for school policy.) After being absent, it is the responsibility of the student to find out what assignments were missed and to make these assignments up. Assignments can be found on the CTTC Pre-Engineering website:

sites.google.com/site/cttcoverton Students have one week to make up assignments that were missed before a zero is entered into the gradebook and late days begin being counted.

- **Late work**- Work handed in late will be penalized at a rate of 10% per day late.

- **Cheating**- Anyone caught cheating on an assignment or test will receive a zero for the assignment and a parent will be called. If this problem persists the student will be sent to the Site Director for further disciplinary action.

  Important note: Except for group-work situations, lending someone else your paper to copy off of falls under the definition of cheating. If this occurs, both that student and yourself will be punished.

- **Sleeping**- Do not sleep during my class. If you are sleeping I'll give you one warning. After that I'm going to take your chair from you and make you stand up for the remainder of the class.

- **Food/Drink**- I allow food and drinks in my class as long as they do not cause a distraction. Be careful with noisy wrappers please.

- **Cell phones**- The rules as of today: Make sure your cell phone is turned off or put on silent before class begins. Phone calls are only allowed during class breaks. Otherwise, you are allowed to use your cell phone in my class as long as I feel it is not distracting you from keeping on task. If I ask you to put your phone away, do so immediately. I reserve the right to take your cell phone from you and even turn it into the site director if you are not compliant. I also reserve the right to change my classroom cell phone policy at any time during the year.

- **Vandalism:** Students caught vandalizing equipment/computers/furniture will be charged the full amount to replace/repair the equipment.

Materials Needed

You will need to bring the following materials every day. If you fail to have any of these during class you will lose points from your *responsibility grade* discussed below.

- Engineering Notebook
- Engineering Binder (in which you will keep handouts, assignments, etc.)
- Pen/Pencil
- Paper
- Almost all other items needed in IED will be provided by the teacher.

  *Note: your **responsibility grade** counts as one test grade. Ways to lose points from your responsibility grade include but are not limited to the following: not having needed materials in class (discussed above) or being late to class.*

Grade checks

I will do my best to supply you with your average frequently, but anytime you would like to know your average you may ask me for it at the end of class.

Extra Help:

If you feel that you need extra help on any assignments or test preparation come talk to me and I will do my best to schedule a time we can meet. It is your responsibility to ask for help if you need it. Please do not be afraid or embarrassed to do so.

Principles of Engineering (POE)

Syllabus

Instructor: Mr. Randy Overton
roverton@cttc.edu
405-729-8324

Course Description: This survey course exposes students to major concepts they'll encounter in a post-secondary engineering course of study. Topics include mechanisms, energy, statics, materials, and kinematics. Students develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, document their work, and communicate solutions. See "Principles of Engineering Detailed Outline" for a more exhaustive listing of POE concepts.

Units of Study:

1) Energy and Power
2) Materials and Structures
3) Control Systems
4) Statistics and Kinematics

CTTC Grading Scale:

A	Excellent	100- 90
B	Superior	89 - 80
C	Average	79 - 70
D	Below Average	69 - 60
F	Failing	59 - 0

I Incomplete
WP Withdrew Passing—Withdrew with a grade of 60 or better
WF Withdrew Failing—Withdrew with a grade of 59 or below

Overall student grade for IED will be computed in the following manner:
Tests- 30% Projects- 30% Daily Work- 40%

Classroom Procedures
Positive classroom behavior is expected at all times as outlined in the student handbook.

- **Tardiness and Absences**- (See student handbook pages 33-34 for school policy.) After being absent, it is the responsibility of the student to find out what assignments were missed and to make these assignments up. Assignments can be found on the CTTC Pre-Engineering website: **sites.google.com/site/cttcoverton** Students have one week to make up assignments that were missed before a zero is entered into the gradebook and late days begin being counted.

- **Late work**- Work handed in late will be penalized at a rate of 10% per day late.

- **Cheating**- Anyone caught cheating on an assignment or test will receive a zero for the assignment and a parent will be called. If this problem persists the student will be sent to the Site Director for further disciplinary action.
  Important note: Except for group-work situations, lending someone else your paper to copy off of falls under the definition of cheating. If this occurs, both that student and yourself will be punished.

- **Sleeping**- Do not sleep during my class. If you are sleeping I'll give you one warning. After that I'm going to take your chair from you and make you stand up for the remainder of the class.

- **Food/Drink**- I allow food and drinks in my class as long as they do not cause a distraction. Be careful with noisy wrappers please.

- **Cell phones**- The rules as of today: Make sure your cell phone is turned off or put on silent before class begins. Phone calls are only allowed during class breaks. Otherwise, you are allowed to use your cell phone in my class as long as I feel it is not distracting you from keeping on task. If I ask you to put your phone away, do so immediately. I reserve the right to take your cell phone from you and even turn it into the site director if you are not compliant. I also reserve the right to change my classroom cell phone policy at any time during the year.

- **Vandalism:** Students caught vandalizing equipment/computers/furniture will be charged the full amount to replace/repair the equipment.

Materials Needed
You will need to bring the following materials every day. If you fail to have any of these during class you will lose points from your *responsibility grade* discussed below.

- Engineering Notebook
- Engineering Binder (in which you will keep handouts, assignments, etc.)
- Pen/Pencil
- Paper
- Almost all other items needed in POE will be provided by the teacher.
  *Note: your **responsibility grade** counts as one test grade. Ways to lose points from your responsibility grade include but are not limited to the following: not having needed materials in class (discussed above) or being late to class.*

Grade checks
I will do my best to supply you with your average frequently, but anytime you would like to know your average you may ask me for it at the end of class.

Extra Help:
If you feel that you need extra help on any assignments or test preparation come talk to me and I will do my best to schedule a time we can meet. It is your responsibility to ask for help if you need it. Please do not be afraid or embarrassed to do so.

CTC
CHISHOLM TRAIL TECHNOLOGY CENTER

DIGITAL ELECTRONICS
Course Syllabus

283 State Highway 33
Omega, OK, 73764
www.CTTC.edu

Instructor: **Jason B. Wallace**
Office: "The Cave" – Come through Mrs. Naifeh's Classroom
Office Hours: Monday & Friday: 7:30 AM – 4:00 PM T, W, & TR: Out of office
Office Phone 405-729-7324 **Email Address:** Jwallace@cttc.edu **Web:** www.CTTC.edu

Course Number: ST00021 **OCAS Code:** 00021
Career Cluster: Science, Technology, Engineering, & Math (STEM)
Career Pathway: Engineering
Career Major: Variable Upon Student Interest
Pre-Requisite: Introduction to Engineering Design & Principles of Engineering

DESCRIPTION

This course involves a careful examination of digital electronics; a tool of technical communication for learning electrical components and how they work. Emphases are on development of basic electronic skills, visualization, and ability to diagnose electrical/component issues from a student's own creation. This course meets the needs of many students with other interests as well as a tool to be used to solve their own needs, a course for Pre-Engineering students training to be ready for college based curriculum, or a course that provides students with a general "feel" for the subject of Digital Electronics.

ORGANIZATION

This is a lecture-lab course in which topics are presented by the instructor, practice problems are explained, and assigned subjects are completed by students both during lab periods and outside of class.
All course material will have quizzes given periodically, and will conclude the course with a comprehensive final exam.
This Digital Electronics course assumes no previous electrical experience or training, so the initial emphases are on the use of equipment and basic procedures.
Students will be expected to work independently and in teams to complete projects
Students assessment will be based on individual as well as group work and tests.

COURSE OBJECTIVES

1. To introduce students to the use of Digital Electronic tools, digital procedures, and to prepare them with general knowledge for a future electronics course.
2. To introduce students to various forms of electrical components and to selection of representations appropriate to specific needs.
3. To introduce students to time and quality of creating electrical production requirements.
4. To orient students to the range of electrical methods, topics, and occupations characterizing the future field.
5. To provide students with opportunities to develop basic electronic skills in respect to sheet composition (SIM), working neatly and accurately (SIM labeling), and basic component recognition.

CTTC GRADING SCALE:

A	Excellent	100- 90
B	Superior	89 - 80
D	Below Average	69 - 60
F	Failing	59 - 0
I	Incomplete	
WP	Withdrew Passing—Withdrew with a grade of 60 or better	
WF	Withdrew Failing—Withdrew with a grade of 59 or below	

ASSESSMENT PLAN (Weighted as follows)
Homework/Quizzes- 30% Labs/Designs- 30% Tests- 30% Engineering Notebook- 10%

283 State Highway 33
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www.CTTC.edu

CLASSROOM RULES OF CONDUCT

1. No music is allowed in class unless operated only with headphones and only during teacher instructed periods (Typically labs).
2. Food and beverages are not permitted in the classroom. This includes plate lunches, drinks, candy, etc. whether opened or not (Leave it in your bag).
3. Class lab time is expected to be spent in lab work. Lab time is not free time. Work at home could be required ***in addition to*** work during lab times (work at home should not *substitute for* work during lab periods).
4. Tardiness and Absences- (See student handbook pages 33-34 for school policy.) After being absent, it is the responsibility of the student to find out what assignments were missed and to make these assignments up
5. Cheating- Anyone caught cheating on an assignment or test will receive a zero for the assignment and a parent will be called. If this problem persists the student will be sent to the Site Director for further disciplinary action.
   Important note: Except for group-work situations, lending someone else your paper to copy off of falls under the definition of cheating. If this occurs, both that student and yourself will be punished.
6. Vandalism: Students caught vandalizing equipment/computers/furniture will be charged the full amount to replace/repair the equipment
7. Cell Phones-- Make sure your cell phone is turned off or put on silent before class begins. If I ask you to put your phone away, do so immediately. I reserve the right to take your cell phone from you and even turn it into the site director if you are not compliant. I also reserve the right to change my classroom cell phone policy at any time during the year
8. Late Work -- Handing in late work will be penalized at a rate of 10% per day late.

Grade Checks

I will do my best to supply you with your average frequently, but anytime you would like to know your average you may ask me for it at the end of class.

Extra Help

If you feel that you need extra help on any assignments or test preparation come talk to me and I will do my best to schedule a time we can meet. It is your responsibility to ask for help if you need it. Please do not be afraid or embarrassed to do so.

Required Materials

1) Calculator 2) 1.5" 3-Ring Binder 3) Pen & Pencil 4) Good Attitude 5) One 5x7 Notecard

EMERGENCY PROCEDURES

1. Evacuation procedures -- See instructions posted in the classroom.
2. First aid kit – By ice machine
3. Emergency ambulance -- from any instructor's office, phone "9" to get an outside line, and then dial "911".
4. Other Occurrences: Contact Ronda Simpson or Max Thomas

CHISHOLM TRAIL TECHNOLOGY CENTER

DIGITAL ELECTRONICS
Course Syllabus

283 State Highway 33
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COURSE TOPICS --

EN – Engineering Notebook
CS – MultiSim
HW – Hard Wire
CB – Course Binder

1.1.1 General Safety Test
1.1.3 Scientific & Engineering Notation - CB
1.1.4 Component Identification Analog – CB
1.1.5A Circuit Theory – Hand Calculations – CB
1.1.5B Circuit Theory Simulation (SIM) – CB CS
1.1.5C Circuit Theory – Breadboarding (Visual)
1.1.6 Component Identification Digital– CB
1.1.7 Introduction to Logic & Datasheets - CB
1.1.9 Soldering & De-Soldering (HW)
1.1.9 Board Game Counter (HW)
1.2.1 Combinational Logic - CB CS
1.2.2 Analog and Digital Signals – CB CS
1.2.3 Binary Numbers & Conversion – CB
1.2.4 Sequential Logic - CB CS
1.2.5 The 555 Timer - CB CS
1.2.6 Board Game Counter: Analog - CB CS
1.2.7 Board Game Counter: Digital - CB CS
1.2.9 Electron Theory - CB
Should be finished with Unit 1 around Week 3
2.1.1 Truth Tables & Logic Expressions - CB
2.1.2 AOI Logic Analysis - CB
2.1.3 AOI Logic Implementation – CB CS
2.1.4 Boolean Algebra EN - CB
2.1.5 DeMorgan's Theorems – CB
2.1.6 Majority Vote - HW
2.2.1 K-Mapping - CB
2.2.2 Universal Gates – NAND – CB CS
2.2.3 Universal Gates – NOR – CB CS
2.2.4 Logic Converter - CS
2.2.5 Fireplace Control Circuit – CS CB
2.3.1 Octal and Hex. Dec. Number Systems CB
2.3.2 Seven Segment Displays CS CB
2.3.2A Date of Birth CB CS HW
2.3.2B EngInEEr CB CS HW
2.3.3 Multiplexers and De-Multiplexers – CB CS
2.3.4 Two's Complement Arithmetic – CB
2.3.5 XOR, XNOR, and Binary Adders – CB CS
2.4.1A Date of Birth with DLB – CS
2.4.2 Programming Tutorial - CS
2.5.3V Copier Jam Detector – CS CB HW
Should be finished with Unit 2 around week 9
3.1.1 Introduction to Flip-Flops – CB CS
3.1.2 Flip-Flop Applications – CB CS
3.2.1 SSI Asynchronous Counters – CB CS
3.2.2 SSI Async. Modulus Counters – CB CS
3.2.3 PLD AsynC. Counter Design – CB CS
3.2.4 MSI Asynchronous Counters – CB CS
3.2.4B Now Serving Display – CB CS HW
3.3.1 SSI Synchronous Counters – CB CS
3.3.2 MSI '163 Synchronous Counters – CB CS
3.3.3 MSI '193 Synchronous Counters – CB CS
3.3.4 Sixty-Second Timer – CB CS HW
3.4.1 Intro to State Machines – CB CS
3.4.2V State machine Design: Toll Booth – CB CS HW **(COMPLETE!)**

CTC
CRIMSON TRAIL TECHNOLOGY CENTER

ENG. DESIGN AND DEVELOPMENT
Course Syllabus

283 State Highway 33
Omega, OK, 73764
www.CTTC.edu

Instructor: **Jason B. Wallace**
Office: "The Cave" – Come through Mrs. Naifeh's Classroom
Office Hours: Monday & Friday: 7:30 AM – 4:00 PM T, W, & TR: Out of office
Office Phone 405-729-7324 **Email Address:** Jwallace@cttc.edu **Web:** www.CTTC.edu

Course Number: ST00021 **OCAS Code:** 00021
Career Cluster: Science, Technology, Engineering, & Math (STEM)
Career Pathway: Engineering
Career Major: Variable Upon Student Interest
Pre-Requisite: IED & POE & DE

DESCRIPTION

Engineering Design and Development (EDD) gives students an opportunity to exercise the skills they have developed not only in their PLTW classes, but in other classes and in their personal experiences in general. Students will work in teams to solve a problem of their choosing. EDD is not focused on producing a marketable process or product, though this can and does happen using the design process. EDD is not intended to be an "invention class" or a "patent generating class" but rather a class that centers on using, documenting, and working through the engineering design process to address a problem. The end result should always be driven by the process rather than an individual or team's skill sets, opinions, or personal preferences. Because the focus is on the problem and using the design process, the topic choices for students are infinite.

ORGANIZATION

This is a lecture-lab course in which topics are presented by the instructor, practice problems are explained, and assigned subjects are completed by students both during lab periods and outside of class.
All course material will be grades mostly around the Engineering Notebook.
This EDD course has pre-requisites for full comprehension of the Design Process.
Students will be expected to work independently as well as in teams to complete the project.
Student's assessment will be based on individual and group work.

COURSE OBJECTIVES

- Apply ethical standards recognized by the engineering community in all aspects of design.
- Use an engineering design process to help guide them through an open ended design problem.
- Create documentation to support understanding of a design process that captures critical waypoints in the design process.
- Develop professional and project planning skills to complete a design process successfully.
- Identify a problem and justify development of a solution from an academic, ethical, or market perspective.
- Identify and evaluate current and past solution attempts.
- Develop multiple possible solutions ideas.
- Create a prototype with a valid testing plan.
- Interpret testing results and summarize.
- Present the design process to a technical group with an understanding of the design process or the identified problem. Students will present their findings and defend process decisions.

CTTC GRADING SCALE:

A	Excellent	100- 90
B	Superior	89 - 80
D	Below Average	69 - 60
F	Failing	59 - 0
I	Incomplete	
WP	Withdrew Passing—Withdrew with a grade of 60 or better	
WF	Withdrew Failing—Withdrew with a grade of 59 or below	

CHISHOLM TRAIL TECHNOLOGY CENTER

ENG. DESIGN AND DEVELOPMENT
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ASSESSMENT PLAN (Weighted as follows)
Homework- **20%** Quiz – **10%** Labs/Designs- **30%** Test- **15%** Engineering Notebook- **55%**

CLASSROOM RULES OF CONDUCT

1. No music is allowed in class unless operated only with headphones and only during teacher instructed periods (Typically labs).
2. Food and beverages are not permitted in the classroom. This includes plate lunches, drinks, candy, etc. whether opened or not (Leave it in your bag).
3. Class lab time is expected to be spent in lab work. Lab time is not free time. Work at home could be required ***in addition to*** work during lab times (work at home should not *substitute for* work during lab periods).
4. Tardiness and Absences- (See student handbook pages 33-34 for school policy.) After being absent, it is the responsibility of the student to find out what assignments were missed and to make these assignments up
5. Cheating- Anyone caught cheating on an assignment or test will receive a zero for the assignment and a parent will be called. If this problem persists the student will be sent to the Site Director for further disciplinary action.
   Important note: Except for group-work situations, lending someone else your paper to copy off of falls under the definition of cheating. If this occurs, both that student and yourself will be punished.
6. Vandalism: Students caught vandalizing equipment/computers/furniture will be charged the full amount to replace/repair the equipment
7. Cell Phones-- Make sure your cell phone is turned off or put on silent before class begins. If I ask you to put your phone away, do so immediately. I reserve the right to take your cell phone from you and even turn it into the site director if you are not compliant. I also reserve the right to change my classroom cell phone policy at any time during the year.
8. Late Work -- Handing in late work will be penalized at a rate of 10% per day late.

Grade Checks

I will do my best to supply you with your average frequently, but anytime you would like to know your average you may ask me for it at the end of class.

Extra Help

If you feel that you need extra help on any assignments or test preparation come talk to me and I will do my best to schedule a time we can meet. It is your responsibility to ask for help if you need it. Please do not be afraid or embarrassed to do so.

Required Materials

1) Calculator 2) 3" 3-Ring Binder 3) Pen & Pencil 4) Good Attitude

EMERGENCY PROCEDURES

1. Evacuation procedures -- See instructions posted in the classroom.
2. First aid kit -- By ice machine or front desk
3. Emergency ambulance -- from any instructor's office, phone "9" to get an outside line, and then dial "911".
4. Other Occurrences: Contact Ronda Simpson or Max Thomas
5. Chisholm Trail Technology Center is making a good faith effort to comply with the provisions and responsibilities of the Americans With Disabilities Act of 1990 (ADA). Services are available to students with disabilities, including accommodations in facilities, programs, and services. Students who need this assistance should contact the ADA Coordinator on their respective campus. Chisholm Trail Technology Center does not discriminate on the basis of race, color, national origin, gender, age, qualified disability or veteran status in any of its practices, policies, or procedures. CTTC is an Equal Opportunity Educational Institution.

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COURSE TOPICS --

(Estimated Time)

Week 1~2

EDD Project Management

Design Process Overview

Setting up Documentation

Contacting Experts Opportunities

Define Teams

Introduce Process Evaluations

Intellectual Property

Week 3~4

Research

Brainstorm Possible Problems

Develop Problem Statement

Draft Problem Statement

Finalize Problem Statement

Identify Stakeholders

Justify Problem

Analyze Prior Solution Attempts

Identify Preliminary Design Goals

Present Project Proposal

Week 4~8

Design

Identify Critical Design Goals

Application of STEM

Generate Multiple Solutions

Select Solution Path

Design Viability Analysis

Prototype and Test

Prepare to Build

Create Drawings/Schematics

Identify Expert Craftsman

Identify Materials and Tools

Develop a Testing Plan

Incremental Testing Plan

Preliminary Design Review

Week 8~12

Prototype

Create Prototype - Refine

Test

Test Prototype

Week 12~14

Analysis

Testing Analysis

Critical Design Review

Evaluate and Reflect

External Evaluation

Designer Reflection

Designer Recommendations

Week 14~16

Project Presentation

Writing Like an Engineer

Prepare Final Presentation

Final Defense of Project Steps

Portfolio Completion

Next Steps - Beyond EDD

Geometry

Mr. Randy Overton

Classroom Procedures

Positive classroom behavior is expected at all times as outlined in the student handbook.

- **Tardiness and Absences-** (See student handbook pages 33-34 for school policy.) After being absent, it is the responsibility of the student to find out what assignments were missed and to make these assignments up. Students have one week to make up assignments that were missed before a zero is entered into the gradebook and late days begin being counted. Assignments that were missed can be found at www.sites.google.com/site/cttcoverton

- **Late work-** Work handed in late will be penalized at a rate of 10% per day.

- **Cheating-** Anyone caught cheating on an assignment or test will receive a zero for the assignment and a parent will be called. If this problem persists the student will be sent to the Site Director for further disciplinary action.

  Important note: Lending someone else your paper to copy off of falls under the definition of cheating. If this occurs, both that student and yourself will be punished.

- **Sleeping-** Do not sleep during my class. If you are sleeping I'm going to take your chair from you and make you stand up for the remainder of the class.

- **Food/Drink-** I allow food and drinks in my class as long as they do not cause a distraction. Be careful with noisy wrappers please!

- **Cell phones-** Make sure your cell phone is turned off or put on silent (**not** vibrate, but silent!) before class begins. Do not use your phone during my class. I reserve the right to take your cell phone from you and turn it into the site director if you are using it during my class.

Materials Needed

You will need to bring the following materials every day. If you fail to have any of these during class you will lose points from your *responsibility grade.*

- Pencil/eraser
- Notebook paper
- Textbook
- Calculator
- Compass
- Protractor
- Straightedge

You may also want to purchase a folder or three ring binder to keep graded assignments and handouts in. (Consider this "insurance" in case the teacher fails to record a grade.)

Grades

Your final grade will be based on the following:

- Homework/Quizzes/Projects- (50% of final grade) We will have a homework assignment almost every day. Unless I inform you otherwise, the homework assignments are always due the next class period. Do not let yourself fall behind on assignments for it is hard to get caught up in math. Make sure you complete all assignments. **Zeros and incomplete assignments absolutely ruin your average!**

- Tests- (50% of final grade) Tests will be given at the end of each textbook chapter to make sure you have correctly mastered the skills and obtained the proper knowledge covered in the text.

  *Note: your **responsibility grade** counts as one test grade. Ways to lose points from your responsibility grade include but are not limited to the following: not having needed materials in class (discussed above) or being late to class.*

- *Extra Credit* assignments will be offered occasionally throughout the year so take advantage of these opportunities as they arise. One way you may receive extra credit on a *weekly* basis, however, is by coming to tutoring sessions in the KHS cafeteria on Tuesdays after school.

Grade checks- I will do my best to supply you with your average each Tuesday, but anytime you would like to know your average you may ask me for it at the end of class.

Extra Help:

If you feel that you need extra help beyond this on any assignments or test preparation come talk to me and I will do my best to schedule a time we can meet. It is your responsibility to ask for help if you need it. Please do not be afraid or embarrassed to do so.

You can also find extra help on my website www.sites.google.com/site/cttcoverton under the "lesson helps" tab. I will post teaching videos and other helpful material here from time to time.

Algebra 2 Syllabus

Mr. Randy Overton

Classroom Procedures

Positive classroom behavior is expected at all times as outlined in the student handbook.

- **Tardiness and Absences-** (See student handbook pages 34-36 for school policy.) After being absent, it is the responsibility of the student to find out what assignments were missed and to make these assignments up. Students have one week to make up assignments that were missed before a zero is entered into the gradebook and late days begin being counted. Assignments that were missed can be found at www.sites.google.com/site/cttcoverton

- **Late work-** Work handed in late will be penalized at a rate of 10% per day.

- **Cheating-** Anyone caught cheating on an assignment or test will receive a zero for the assignment and a parent will be called. If this problem persists the student will be sent to the Site Director for further disciplinary action.

  Important note: Lending someone else your paper to copy off of falls under the definition of cheating. If this occurs, both that student and yourself will be punished.

- **Sleeping-** Do not sleep during my class. If you are sleeping I'm going to take your chair from you and make you stand up for the remainder of the class.

- **Food/Drink-** I allow food and drinks in my class as long as they do not cause a distraction. Be careful with noisy wrappers please!

- **Cell phones-** The rules as of today: Make sure your cell phone is turned off or put on silent before class begins. Phone calls are only allowed during class breaks. Otherwise, you are allowed to use your cell phone in my class as long as I feel it is not distracting you from keeping on task. If I ask you to put your phone away, do so immediately. I reserve the right to take your cell phone from you and even turn it into the site director if you are not compliant. I also reserve the right to change my classroom cell phone policy at any time during the year.

Materials Needed

You will need to bring the following materials every day. If you fail to have any of these during class you will lose points from your *responsibility grade* discussed below.

- Textbook
- Pencil or Pen
- Notebook paper
- Calculator

You may also want to purchase a folder or three ring binder to keep graded assignments and handouts in. (Consider this insurance in case the teacher fails to record a grade.)

Grades

Your final grade will be based on the following:

- Homework/Quizzes/Projects- (50% of final grade) We will have a homework assignment almost every day. Unless I inform you otherwise, the homework assignments are always due

the next class period. Do not let yourself fall behind on assignments for it is hard to get caught up in math. Make sure you complete all assignments. **Zeros and incomplete assignments absolutely ruin your average!**

- Tests- (50% of final grade) Tests will be given at the end of each textbook chapter to make sure you have correctly mastered the skills and obtained the proper knowledge covered in the text.

  *Note: your **responsibility grade** counts as one test grade. Ways to lose points from your responsibility grade include but are not limited to the following: not having needed materials in class (discussed above) or being late to class.*

- *Extra Credit* assignments will be offered occasionally throughout the year so take advantage of these opportunities as they arise.

Grade checks- I will do my best to supply you with your average frequently, but anytime you would like to know your average you may ask me for it at the end of class.

Extra Help:

If you feel that you need extra help on any assignments or test preparation come talk to me and I will do my best to schedule a time we can meet. It is your responsibility to ask for help if you need it. Please do not be afraid or embarrassed to do so.

Pre-Calculus Syllabus

Mr. Randy Overton

Classroom Procedures

Positive classroom behavior is expected at all times as outlined in the student handbook.

- **Tardiness and Absences**- (See student handbook pages 34-36 for school policy.) After being absent, it is the responsibility of the student to find out what assignments were missed and to make these assignments up. Students have one week to make up assignments that were missed before a zero is entered into the gradebook and late days begin being counted. Assignments can be found at www.sites.google.com/site/cttcoverton

- **Late work**- Work handed in late will be penalized at a rate of 10% per day.

- **Cheating**- Anyone caught cheating on an assignment or test will receive a zero for the assignment and a parent will be called. If this problem persists the student will be sent to the Site Director for further disciplinary action.

  Important note: Lending someone else your paper to copy off of falls under the definition of cheating. If this occurs, both that student and yourself will be punished.

- **Sleeping**- Do not sleep during my class. If you are sleeping I'm going to take your chair from you and make you stand up for the remainder of the class.

- **Food/Drink**- I allow food and drinks in my class as long as they do not cause a distraction. Be careful with noisy wrappers please!

- **Cell phones**- The rules as of today: Make sure your cell phone is turned off or put on silent before class begins. Phone calls are only allowed during class breaks. Otherwise, you are allowed to use your cell phone in my class as long as I feel it is not distracting you from keeping on task. If I ask you to put your phone away, do so immediately. I reserve the right to take your cell phone from you and even turn it into the site director if you are not compliant. I also reserve the right to change my classroom cell phone policy at any time during the year.

Materials Needed

You will need to bring the following materials every day. If you fail to have any of these during class you will lose points from your *responsibility grade* discussed below.

- Textbook
- Pencil or Pen
- Notebook paper
- Calculator

You may also want to purchase a folder or three ring binder to keep graded assignments and handouts in. (Consider this insurance in case the teacher fails to record a grade.)

Grades

Your final grade will be based on the following:

- Homework/Quizzes/Projects- (50% of final grade) We will have a homework assignment almost every day. Unless I inform you otherwise, the homework assignments are always due

the next class period. Do not let yourself fall behind on assignments for it is hard to get caught up in math. Make sure you complete all assignments. **Zeros and incomplete assignments absolutely ruin your average!**

- Tests- (50% of final grade) Tests will be given at the end of each textbook chapter to make sure you have correctly mastered the skills and obtained the proper knowledge covered in the text.

  *Note: your **responsibility grade** counts as one test grade. Ways to lose points from your responsibility grade include but are not limited to the following: not having needed materials in class (discussed above) or being late to class.*

- *Extra Credit* assignments will be offered occasionally throughout the year so take advantage of these opportunities as they arise.

Grade checks- I will do my best to supply you with your average frequently, but anytime you would like to know your average you may ask me for it at the end of class.

Extra Help:

If you feel that you need extra help on any assignments or test preparation come talk to me and I will do my best to schedule a time we can meet. It is your responsibility to ask for help if you need it. Please do not be afraid or embarrassed to do so.

AP Calculus Syllabus

Mr. Randy Overton

Course Overview

My primary goal in all of my math classes is to promote a love and an appreciation for mathematics. The path to this view is not completed without a cost, however, especially in calculus. Most AP Calculus students must overcome obstacles along the way such as confusion and frustration, and therefore must learn to humble themselves and ask for direction from both the teacher and their peers when the path becomes unclear.

This will be the most difficult math class you have taken up to this point in your education experience, for *it is a college-level course.* As such, you will be required to put in more time completing homework assignments, preparing for tests/quizzes, and conducting math-based projects for this math class than for any you've taken previously. However, if you stick it out and put in the time and effort needed, it will also be a very rewarding experience.

The question that you have probably asked your math teacher at some point, 'When will I ever use this?" will be answered in calculus as you use knowledge gained from all of your previous math classes to understand and master the concepts of calculus in a graphical, analytical, numerical, and verbal manner.

The major calculus topics we will cover fall under 5 main headings:

1. Limits and Continuity
2. Derivatives
3. Applications of Derivatives
4. Integrals
5. Applications of Integrals

Course Objectives

Although scoring well on the AP test is of utmost importance, the primary purpose of this course is to prepare you for collegiate level mathematics courses. In doing so, the following goals will be incorporated into this course:

1. Demonstrate and have students discover how math topics from algebra, geometry, and trigonometry all converge in calculus.
2. Provide real-life application problems for students to use their calculus skills to solve. These problems may be assigned in calculus and/or pre-engineering classes at our school.
3. Teach and encourage students to discover how to use calculator capabilities when solving calculus problems. Not all assignments and test questions will be calculator based, however.
4. A variety of questioning types, such as free response and multiple-choice, will be used on tests to prepare students for both the AP test and collegiate courses.
5. Students will be exposed to all topics that would normally be covered in a collegiate Calculus 1 course. If they choose to take a Calculus 1 course in college (whether they pass the AP Calculus AB test or not), they will do so knowing it will be primarily to review and solidify topics they have already been exposed to in my class.

Utilizing Technology

Calculators have changed the way mathematics is approached in the classroom. If students are not equipped to use the latest technology (i.e. calculators, math software, etc.) when they arrive on a college campus, they will be at a huge disadvantage. Therefore, students will utilize the Texas Instruments TI-83 plus, TI-84 plus, and at times the TI-92 calculator in this class. However, I also assign homework in which they are not allowed to use this technology to make sure they understand the concepts and not just plugging in numbers to arrive at an answer.

Homework and Assessments

I am a firm believer that repetition is key to learning. Consider a basketball player, a sport that is very popular in our region, shooting free throws for hours on end in order to train his muscles. We train our brains by doing the same; hours of practice. Be ready for hours of math practice.

Assessments are given at the end of each unit. A combination of multiple choice, free-response, true/false, and other types of questioning are used. Tests count for half a student's overall grade in my class.

Classroom Procedures

Positive classroom behavior is expected at all times as outlined in the student handbook.

- **Tardiness and Absences-** (See student handbook pages 33-34 for school policy.) After being absent, it is the responsibility of the student to find out what assignments were missed and to make these assignments up. Students have one week to make up assignments that were missed before a zero is entered into the gradebook and late days begin being counted. Assignments can be found at www.sites.google.com/site/cttcoverton

- **Late work-** Work handed in late will be penalized at a rate of 10% per day.

- **Cheating-** Anyone caught cheating on an assignment or test will receive a zero for the assignment and a parent will be called. If this problem persists the student will be sent to the Site Director for further disciplinary action.

  Important note: Lending someone else your paper to copy off of falls under the definition of cheating. If this occurs, both that student and yourself will be punished.

- **Sleeping-** Do not sleep during my class. If you are sleeping I'm going to take your chair from you and make you stand up for the remainder of the class.

- **Food/Drink-** I allow food and drinks in my class as long as they do not cause a distraction. Be careful with noisy wrappers please!

- **Cell phones-** The rules as of today: Make sure your cell phone is put on silent before class begins. Phone *calls* are only allowed during class breaks. Otherwise, you are allowed to use your cell phone in my class as long as I feel it is not distracting you from keeping on task. If I ask you to put your phone away, do so immediately. I reserve the right to take your cell phone from you and even turn it into the site director if you are not compliant. I also reserve the right to change my classroom cell phone policy at any time during the year.

Materials Needed

You will need to bring the following materials every day. If you fail to have any of these during class you will lose points from your *responsibility grade* discussed below.

- Textbook
- Worksheets binder
- Pencil or Pen
- Notebook paper
- Calculator

You may also want to purchase a folder or three ring binder to keep graded assignments and handouts in. (Consider this insurance in case the teacher fails to record a grade.)

Grades

Your final grade will be based on the following:

- Homework/Quizzes/Projects- (50% of final grade) We will have homework assignments frequently. Unless I inform you otherwise, the homework assignments are always due the next class period. Do not let yourself fall behind on assignments for it is hard to get caught up in math. Make sure you complete all assignments. *Zeros and incomplete assignments absolutely ruin your average!*
- Tests- (50% of final grade) Tests will be given at the end of each textbook chapter to make sure you have correctly mastered the skills and obtained the proper knowledge covered in the text.

  *Note: your **responsibility grade** counts as one test grade. Ways to lose points from your responsibility grade include but are not limited to the following: not having needed materials in class (discussed above) or being late to class.*

- *Extra Credit* assignments will be offered occasionally throughout the year so take advantage of these opportunities as they arise.

Grade checks- I will do my best to supply you with your average frequently, but anytime you would like to know your average you may ask me for it at the end of class.

Extra Help:

If you feel that you need extra help on any assignments or test preparation come talk to me and I will do my best to schedule a time we can meet. It is your responsibility to ask for help if you need it. Please do not be afraid or embarrassed to do so.

Although the information below is a little dated, it still shows the difficulty that students (even engineering majors) have with college-level calculus. It is my job to keep you from being a statistic in the lower 64%. In order for you to succeed in calculus, however, you must be prepared to put in some serious study time.

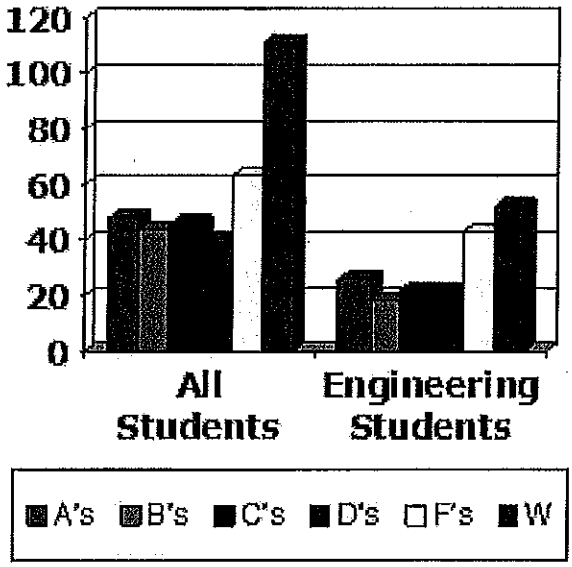
Oklahoma State University

Calculus I

Analysis by Dr. Virgil Nichol, CEAT Student Services Director, 2003-2004

- 7 sections
- 352 Total Students enrolled in Calculus I
- 182 of those students were Engineering Majors
  - 14% A
  - 10% B
  - 12% C
  - **12% D**
  - **24% F**
  - **28% W**

64% D,F, or W



Oklahoma State Department of Education Teaching Certificate

Janet C. Barresi
State Superintendent of Public Instruction

The State Board of Education certifies and authorizes Randy E. Overton to serve in the accredited schools of Oklahoma as indicated below.

Teacher # 216110 | Degree: Master's Degree | Class: Standard | Certification Background Clearance: 7/4/2002

Area Description	Level	Valid	Expire
5550 ADVANCED MATHEMATICS	6-12	9/1/2012	6/30/2017
5555 MID-LEVEL MATH: FOR HIGH SCHOOL CREDIT	5-8	9/1/2012	6/30/2017

**********NO ENTRIES BELOW THIS LINE**********

Area Description	Level	Valid	Expire
5552 INTERMEDIATE MATHEMATICS	6-12	9/1/2012	6/30/2017

**********NO ENTRIES BELOW THIS LINE**********

RANDY E. OVERTON
POST OFFICE BOX 74
OKARCHE, OK 73762

pdf_date1/2/2013 C

Certificate Above for Personal Records

Submit Certificate Below to School District

Oklahoma State Department of Education Teaching Certificate

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