

# JAMES T. HUTCHISON HIGH SCHOOL

STUDENT PLANNER 2010-2011

Jeanette Hayden, Principal 3750 Geist Rd. Fairbanks, AK 99709

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The courses listed in this planner are those which Hutchison High School may offer. Inclusion of these courses in the planner does not necessarily guarantee that they will be offered during the 2010-2011 school year.

\*Fee Waivers: Fees are assessed for some elective courses. Students may be eligible for a fee waiver. If you have questions about a course fee, please consult your counselor.

# **Registration Information**



# For additional program information or to register as a student at Hutchison High School please contact:

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# JAMES T. HUTCHISON HIGH SCHOOL INSTITUTE OF TECHNOLOGY

- A school of choice for a student interested in a high quality technical career that will lead to employment, post secondary technical/trade school training, apprenticeships, or college.
- A school with a strong core academic program supporting the technical programs.
- Modern and up-to-date career and technical programs validated by national certification standards.
- A collaborative and team oriented work place.
- A school that actively works with business, industry, university systems (UAF/TVC), and parents/guardians to form partnerships that promote academic and career development.
- A school that integrates contextual, hands on, practical application of learning concepts across all curricular areas.
- A school where students apply for entrance and are interested in and motivated by their chosen course work.
- A school where classes are geared to smaller learning communities.
- A school that has extra-curricular activities and interscholastic sports.
- A school that has exceptional career and technical student organizations designed to develop leadership, problem solving, critical thinking, and specific employment skills for students. (i.e. Skills USA, HOSA, Academic Decathlon, Key Club, etc)

Applications are available on the district web site at <a href="http://hut.k12northstar.org">http://hut.k12northstar.org</a>
<a href="http://hut.k12northstar.org">www.hutchisonhighschool.com</a>
<a href="http://www.hutchisoncounseling.com">www.hutchisoncounseling.com</a>

### JAMES T. HUTCHISON HIGH SCHOOL

## **Our Mission Statement**

Career & Technical Education Advisory Council (FNSBSD 03/18/08)

James T. Hutchison High School, an integrated learning environment within a culturally diverse community, where academic and career-technical experiences facilitate success in continued education, skilled employment, civic responsibility, and personal integrity.

### **Core Values**

#### As a school we believe:

- Hutchison provides a secure and positive environment where students complete a challenging academic core and a career-technical concentration of their choosing.
- Honesty, Integrity and Respect set the tone that guides our decisions and our actions.
- Recognizing and seizing productive opportunities in a process of life-long learning.
- Developing employability skills such as reliability, creativity, productivity, and selfdetermination within the context of teamwork and professionalism is essential.
- Students, their families, and the community are active and responsible participants in the learning process.
- Regular attendance, a support network, adequate rest, proper nutrition, and an abuse-free lifestyle are imperative to success in life.

### **FNSBSD Class Standings-High School**

#### 983.5 <u>Class Standings – High School</u>

#### I. Purpose

To establish the policy of the School Board on classifying high school students' class standing for consistency across the district and compliance with state statue and regulations as this issue impacts the graduation rate and participation in standardized assessments.

#### II. Policy

A high school student's class standing for freshman, sophomore, and junior classification shall be determined by the number of years in high school. The number of years in high school and the number of credits earned shall be used to classify students as seniors.

Class Standing	Criteria
Freshman (9th grade)	A student in his/her first year of high school.
Sophomore (10th grade)	A student in his/her second year of high school.
Junior (11th grade)	A student in his/her third year of high school. Students who do not earn 16.5 credits by the end of their third year of high school remain classified as juniors.
Senior (12th grade)	A student in his/her fourth year or more of high school and has earned 16.5 or more credits.

Class standing shall be determined at the end of each semester. The administration will draft an administrative regulation to ensure appropriate notice to parents and students of their class standing.

Policy Adopted: July 5, 1983 Policy Revised: February 19, 1991

Policy Revised: December 21, 2004 (change effective August 2005)

Policy Revised: May 1, 2007 Policy Revised: May 6, 2008

## **FNSBSD Graduation Requirements**

To receive the regular high school diploma presented by the Board of Education, students will be required to satisfactorily and fully complete a course of study that meets those requirements established by the State Board of Education and the district. Students will be required to complete a minimum of 22.5 credits, and distributed within the following subject areas:

English4 credits						
Social Studies						
World History1 credit (2 semesters)						
U.S. History1 credit (2 semesters)						
American Government5 credit (1 semester)						
Economics5 credit (1 semester)						
Alaska Studies (Required)5 credit (1 semester)						
Science						
Life Science1 credit (2 semesters)						
Physical Science1 credit (2 semesters)						
Science Elective1 credit (2 semesters)						
Mathematics3 credits						
Algebra I (Required)						
Math Electives						
With Dicetives2 credits (4 seniesters)						
Physical Education						
One-quarter (.25) credit for the Physical Education requirement may be waived for each full season of participation in approved interscholastic or intramural athletic competition, retroactive to the beginning of time. The total credit waived shall not exceed one-full credit. Elective credit must be earned to replace the Physical Education requirement that is waived. A waiver of credit under this section does not affect the overall minimum requirements.						

One-half (.5) credit is awarded for satisfactorily completing a required or elective course which is one semester in length.

Students must also pass the Alaska High School Graduation Qualifying Examination per AS 14.03.075.

\*\* Beginning with the class of 2011, the Alaska Studies requirement is in addition to the previous 3 credits of social studies, raising the social studies requirement to 3.5 and the total number of credits required for graduation to 22.5.



### **Hutchison High School Credit Worksheet**

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English (4 credits	s)		Litera .5		Compositi .5	on	Literature .5		oosition .5	Amer Litero	ature	Elect		Britis Literat .5		Elective .5		
Math (3 credit	ts)		Algebr 51 .5		Algebra 52 .5	I	51 .5	,	52 .5	5		.52		51 .5		<b>52</b> .5		
Science (3 credit	ts)		Physi Scier S1	ice	Physica Science S2 .5		Life Science S1 .5	Sc	ife ience 52 .5	Elec S	1	Elect S2	2	Electi S1 .5	ve	Elective 52 .5		
Social S (3 credit		5			Alaska Studies .5		World History S1 .5	His	orld story 52 .5	U: Hist S:	ory 1	US Histo S2	ory	Governn S1 .5	nent	Economic S2 .5	ne:	
P.E. (1.! Health (		-	Heal .5		PE .5		PE .5		PE .5			PE Cre	edit co	in be tak nroughou 11, or 1	t	.3	Name:	
Electives (7 credits)	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5

<sup>\*22</sup> Credits Required. To receive a diploma, students must pass all sections of the High School Graduation Qualifying Exam. (Note: Taking additional credits is encouraged and students with 24+ credits wear a medallion at the graduation ceremony).

Total Credits to Date:	H.S.G.Q.E.		
	Reading	Y	N
Credits Needed if current classes are passed:	Writing	Y	N
-	Math	Y	

<sup>\*22.5</sup> Credits Required – Starting with the Class of 2011



# Focus on the Future



# James T. Hutchison High School Career Technical Courses

**School Year 2010 – 2011** 



# <u>Certification Opportunities</u> (Certification requires successful program completion & testing)

(\*Some programs may require additional training beyond high school)

Career Cluster	Certification	<b>Issuing Organization</b>			
Architecture & Construction					
CORE	National Registry	NCCER (Natl. Center for Const. Ed. & Research)			
Carpentry 1A, 1B	National Registry	NCCER			
Carpentry 2A, 2B	National Registry	NCCER			
Carpentry 3A, 3B	National Registry	NCCER			
*Welding	National Registry	NCCER S.E.N.S.E. Program (Schools Excelling Through National Skills Standards)			
Business Management & Adm	inistration				
Computer Literacy Computer Application	IC3 International Computer Core Certification	CERTIPORT			
Health Science					
Certified Nursing Assistant	Certified Nurse Asst. (CNA)	AK Dept. of Community & Economic Development (Division of Occupational Licensing)			
Emergency Medical Technician	Emergency Medical Tech I (EMT)	AK Dept. of Community & Economic Development (Division of Occupational Licensing)			
Information Technology (IT)					
IT Essentials 1A & 2B	A+ Certification	Comp TIA (Computing Technology Industry Association)			
Computer Networking	CCNA (Cisco Certification Network Association)	CISCO Systems			
Transportation, Distribution &	& Logistics				
*Automotive Technician	ASE/NATEF Certification	ASE/NATEF (National Automotive Technician Education Foundation)			
*Collision Repair Technician	ICAR Certification	ICAR			
Small Engines	EETC – Equipment & Engine Training Council	OPEESA (Outdoor Power Equipment & Engine Service Association)			





# **TECH PREP PROGRAM**

The articulated courses currently being offered at HHS and the corresponding UAF/TVC credits are:

Architecture & Constructi	<u>on</u>	12 Credits				
3 Credits	Drafting 1A and 1B					
3 Credits	CAD Drafting 1A and 1B					
3 Credits	Architectural Drafting 1A and 1B	3				
3 Credits	Welding 1A & 2B (must pass pro					
	(	3				
Business Management & A	<u>Administration</u>	18 Credits				
3 Credits	Accounting 1A & Accounting 2B	(2 Semesters)				
3 Credits	Accounting 3C & Accounting 4D	(2 Semesters)				
3 Credits	Computer Literacy					
3 Credits	Computer Applications					
3 Credits	Graphic Design & Multimedia					
3 Credits	Web Design					
Arts, Audio/Video Techno	logy Communication	3 Credits				
3 Credits	Graphic Design & Publishing					
<b>Heath Science</b>		18 Credits				
2 Credits	Introduction to Health Careers					
4 Credits	Clinical Procedures					
3 Credits	Math in Health Care					
3 Credits	Medical Terminology 1A & 1B					
6 Credits	<b>Emergency Medical Technician 1</b>	A & 1B				
Information Technology		22 Credits				
3 Credits	IT Essentials 1A					
3 Credits	IT Essentials 1B					
4 Credits	Computer Networking 1A					
4 Credits	Computer Networking 2B					
4 Credits	Computer Networking 3C					
4 Credits	Computer Networking 4D					
Transportation, Distributi	on & Logistics	2 Credits				

**Small Engines 1A** 

**Small Engines 2B** 

1 Credit

1 Credit



# Annual Update for Current Tech Prep Agreement 2009/2010 Academic Year

University of Alaska Fairbanks Tanana Valley Campus 604 Barnette Street Fairbanks, Alaska 99701 Fairbanks North Star Borough School District 520 Fifth Avenue Fairbanks, AK 99701

#### Purpose:

This is the annual review to the general Tech Prep Agreement between the University of Alaska Fairbanks Tanana Valley Campus and the Fairbanks North Star Borough School District.

The FNSBSD will follow a curriculum coordinated with the administration and faculty of the University of Alaska Fairbanks Tanana Valley Campus pertaining to the following courses:

UAF Course Title	UAF Credit	FNSBSD Course Title
ABUS F101 Principles of Financial Accounting I	3	CTEJ109 Accounting 1A and CTEJ110 Accounting 2B
ABUS F201 Principles of Financial Accounting II	3	CTEJ111 Accounting 3C and CTEJ112 Accounting 4D
ABUS F267 Transportation and Logistics Management	3	CTEI102 Alaska Railroad Tour Guide Program
AFPM F148 Aircraft Drawing	1	Any Semester of Drafting
AUTO F100 Introduction to Small Engine Repair	1	CTEE301 Small Engines 1A
AUTO F170 Snowmachine Maintenance and Repair	1	CTEE302 Small Engines 2B
CIOS F105 Computer Software Applications	3	CTEJ103 Computer Literacy
CIOS F130 Microcomputer Word Processing	3	CTEJ104 Advanced Microsoft Word
CIOS F150 Computer Business Applications	3	CTEJ105 Computer Applications
CIOS F233 Desktop Publishing	3	CTEJ106 Graphic Design and Publishing
CIOS F257 Digital Video	3	CTEM103 Digital Cinema Productions 1A and CTEM104 Digital Cinema Productions 2B
CIOS F258 Digital Photography	3	CTEM401 Digital Photography 1A and CTEM402 Digital Photography 1B
CITS F201 Microcomputer Hardware Support*	3	CTEF203 IT Essentials 1A-PC Hardware & Software*
CITS F202 Microcomputer Operating Systems Support*	3	CTEF204 IT Essentials 2B-PC Operating Systems*
CITS F205 Introductions to Microcomputer Programming	3	MA 232 and 233 Computer Programming

UAF Course Title	UAF Credit	FNSBSD Course Title
CITS F222 Internet Authorizing & Design	3	CTEJ108 Web Design
CITS F221 Graphics and Multimedia for the Web	3	CTEJ107 Graphic Design and Multimedia
CITS F241 Network and LAN Infrastructure Basics **	4	CTEF301 Computer Networking 1A**
CITS F242 Routers and Routing Concepts**	4	CTEF302 Computer Networking 2B**
CITS F243 Intermediate Network and LAN Infrastructure**	4	CTEF303 Computer Networking 3C**
CITS F244 Advanced Network Infrastructure Services**	4	CTEF304 Computer Networking 4D
DRT F101 Introduction to Drafting	3	CTEC101 Drafting 1A and CTEC102 Drafting 1B
DRT F140 Architectural Drafting I	3	CTEC105 Architectural Drafting 1A and CTEC106 Architectural Drafting 1B
DRT F170 Beginning Auto CAD	3	CTEC103 Computer-Aided Drafting 1A and CTEC104 Computer-Aided Drafting 1B
EMS F152 Emergency Trauma Training First Responder	3	CTEK109 Emergency Trauma Technician
EMS F170 EMT: Emergency Medical Technician I	6	CTEK901 Emergency Medical Technician I 1A and CTEK902 Emergency Medical Technician I 1B
HLTH F100 Medical Terminology	3	CTEK102 Medical Terminology 1A and CTEK103 Medical Terminology 1B
HLTH F105 Intro to Health Careers	2	CTEK101 Introduction to Health Careers
HLTH F116 Mathematics in Health Care	3	CTEK112 Math in Health Care
HLTH F132 Administrative Procedures I	2	CTEK113 Medical and Dental Administrative Procedures
HLTH F142 Clinical Procedures I	4	CTEK105 Clinical Procedures
HUMS F105 Personal Awareness and Growth	3	CTEL104 Personal Relationships
HUMS F120 Cultural Diversity in Human Services	3	CTEL102 Cultural Diversity
WMT F103 Welding I	3	CTEC501 Welding 1A and CTEC502 Welding 2B

- 2. FNSBSD will teach courses with the agreed upon outcomes.
- 3. The UAF grade posted will be the grade earned in FNSBSD course in that semester.

If there are changes to your course offerings (titles, content, outcomes, or faculty), please contact Amy Bristor at 455-2858 or <a href="mailto:albristor@alaska.edu">albristor@alaska.edu</a> to coordinate changes to ensure these courses can articulate as designed.

<sup>\*</sup>Completion of both IT Essentials 1A and IT Essentials 2B are required before tech prep credit can be requested for both CITS F201 and CITS F202.

<sup>\*\*</sup>Completion of Computer Networking 1A, Computer Networking 2B, Computer Networking 3C, and Computer Networking 4D are required before tech prep credit can be requested for CITS F241, CITS F242, CITS F243, and CITS F244.

# **INTRODUCTORY & CAPSTONE COURSES**

#### **CAREER INVESTIGATIONS 101**

(9) CTEX001 Elective Length: 1 Semester = .5 Credit

Prerequisite: None

Course Description: Career Investigations 101 will provide students with the tools needed to evolve into independent learners, facilitate their transition from the middle school environment, and provide them an opportunity to explore options in each of the five career clusters offered at Hutchison High School. As students rotate through each cluster area they will be encouraged to identify their interests and aptitudes and investigate how they relate to success in that particular Career Cluster through a "hands on" experience. By examining their own individual personalities and values, they can begin planning for the future through the development of effective decision-making, communication, and conflict-resolution skills. Each student will develop fundamental goal setting and career planning skills. All ninth grade students participate in this course.

#### INDEPENDENT RESEARCH

(10-12) CTEJ580

**Length:** 1 Semester = .5 Credit

Prerequisite: Completion of all course offerings in a specific career cluster; Teacher recommendation

**Course Description:** This course is designed to meet the learning needs of a student who has completed all the course offerings in a specific career cluster. The area of study in this course will be selected by the student and instructor. A contract will be developed stating the type of work to be done and listing a timeline to be followed for completion of the work.

## **DISTRICT WIDE COURSE**

#### ALASKA TOURISM

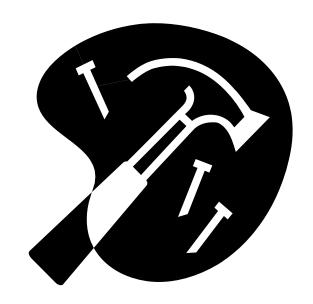
#### ALASKA RAILROAD TOUR GUIDE

(11-12) CTEI102 Elective Length: 1 Semester = .5 Credit Prerequisite: Admission by interview

**Course Description:** This course prepares students for a job in the visitor industry, specifically a job as a tour guide for the Alaska Railroad. Students acquire knowledge useful for most aspects of the visitor industry in Alaska, particularly the following areas: Knowledge of the state's history, geography, native cultures, flora, fauna, natural resources, current events, agencies, parks, recreation, agriculture, and customer service.

This class is offered after school 2nd Semester at Lathrop High School.





# ARCHITECTURE & CONSTRUCTION CAREER CLUSTER

# **Career Cluster Sequence**

#### **ARCHITECTURE & CONSTRUCTION CAREER CLUSTER**

#### **Residential & Commercial Construction**

- Carpenter
- Painter
- Welder
- Drafter

#### CARPENTRY/WELDING/DRAFTING

#### Year 1

S1 or S2 - Career Investigations

and

S1 - CORE 1A Introduction to Carpentry

S2 - CORE 1B Introduction to Carpentry

or

S1 - Drafting 1A

S2 - Drafting 1B (Completion of 1A & 1B = 3 College Tech Prep Credits)

#### Year 2

S1 - Carpentry 1A

S2 - Carpentry 1B

or

S1 - Computer Assisted Drafting (CAD) 1A

S2 - Computer Assisted Drafting (CAD) 1B (Completion of 1A & 1B = 3 College Tech Prep Credits)

or

S1 - Welding 1A

S2 - Welding 2B (Completion of 1A & 2B = 3 College Tech Prep Credits)

#### Year 3

S1 - Carpentry 2A

S2 - Carpentry 2B

or

S1 - Architectural Drafting 1A

S2 - Architectural Drafting 1B (Completion of 1A & 1B = 3 College Tech Prep Credits)

or

S1 - Welding 3C

S2 - Welding 4D

#### Year 4

S1 - Carpentry 3A

S2 - Carpentry 3B

Minimum grade of "C" must be achieved in order to move to the next level of class and be eligible for Tech Prep Credits.

## **ARCHITECTURE & CONSTRUCTION**

#### **CORE 1A INTRODUCTION TO CARPENTRY**

(9-12) CTEC301 Elective Length: 1 Semester = .5 Credit

Fees: \$20 (Materials) Prerequisite: None

**Course Description:** This introduction to National Center for Construction Education and Research (NCCER) *CORE* is for students interested in learning the principles and skills necessary to become a professional craftsperson. The emphasis in *CORE 1A* will be on the importance of basic math and communication skills as well as the role that safety plays in construction crafts. Employability skills, construction terminology, equipment safety inspections, and proper equipment use will be stressed. Basic hand tools will be introduced. Basic *CORE* skills will be reinforced with hands-on experiences.

#### **CORE 1B INTRODUCTION TO CARPENTRY**

(10-12) CTEC302 Elective Length: 1 Semester = .5 Credit

Fees: \$20 (Materials) Prerequisite: CORE 1A

**Course Description:** This course is a continuation of *CORE 1A* for students interested in learning the principles and skills necessary to become a professional craftsperson. The importance of basic math and communication skills as well as the role that safety plays in the construction crafts will be re-emphasized. Employability skills, equipment safety inspections, and proper equipment use will be stressed. A continuation of skills learned in *Core 1A* with emphasis on building a small project with proper layout techniques.



#### **CARPENTRY 1A**

(10-12) CTEC303 Elective Length: 1 Semester = .5 Credit

Fees: \$20 (materials)

Prerequisite: CORE; Algebra 1 (may be concurrent)

Course Description: This course is for students interested in learning the principles and skills necessary to become carpenters. History and stages of progress within the carpentry trade will be addressed. Professional responsibilities and the importance of safety will be emphasized. This course will introduce students to basic skills and knowledge related to residential and commercial carpentry. Topics covered include: careers; safety; equipment use; wood, metal and concrete building materials; fasteners, hand and power tools; fabrication based on construction plans; and the process for framing platform and post-and-beam structures in both wood and metal. Note: Assessments are given both in the lab and classroom on all curriculum material covered.

#### **CARPENTRY 1B**

(10-12) CTEC304 Elective Length: 1 Semester = .5 Credit

Fees: \$20 (materials)

Prerequisite: CORE; Algebra 1 (may be concurrent), Carpentry 1A

Course Description: This course is for students interested in learning the principles and skills necessary to become carpenters. History and stages of progress within the carpentry trade will be addressed. Professional responsibilities and the importance of safety will be emphasized. This course will introduce students to basic skills and knowledge related to residential and commercial carpentry. Topics covered include: careers; safety; equipment use; wood, metal and concrete building materials; fasteners, hand and power tools; fabrication based on construction plans; and the process for framing platform and post-and-beam structures in both wood and metal. Note: Assessments are given both in the lab and classroom on all curriculum material covered.

#### **CARPENTRY 2A**

(10-12) CTEC305 Elective Length: 1 Semester = .5 Credit

Fees: \$20 (materials)

Prerequisite: CORE; Carpentry 1A & 1B or Instructor Approval

**Course Description:** Carpentry 2A is designed to continue training students in the fundamentals of the building trades. Carpentry 2A will emphasize basic carpentry skills in reading plans, determining elevations, site layout, foundations and flatwork, types of concrete forms, concrete and reinforcing materials, and handling and placing concrete. The application of algebraic and geometric principles to construction problems will be emphasized.

#### **CARPENTRY 2B**

(10-12) CTEC306 Elective Length: 1 Semester = .5 Credit

Fees: \$20 (materials)

Prerequisite: CORE; Carpentry 1A, 1B, and 2A or Instructor Approval

**Course Description:** Carpentry 2B is designed to continue training students in the fundamentals of the building trades. Carpentry 2B will emphasize basic carpentry skills in reading plans, determining elevations, site layout, foundations and flatwork, types of concrete forms, concrete and reinforcing materials, and handling and placing concrete. The application of algebraic and geometric principles to construction problems will be emphasized.

#### **CARPENTRY 3A**

(11-12) CTEC307 Elective Length: 1 Semester = .5 Credit

Fees: \$20 (materials)

Prerequisite: CORE and Carpentry 1 & 2

**Course Description:** This is the third in a series of carpentry courses designed to extend students' knowledge and skills related to residential and commercial carpentry. There will be a continued emphasis on equipment selection, use and safety, employability skills, applied academics, and careers. *Carpentry 3A* will focus on different types and parts of stair systems and the procedures for planning, cutting, and installing a type of stairs. The application of algebraic and geometric principles to construction problems will be emphasized.

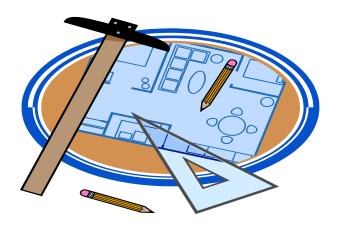
#### **CARPENTRY 3B**

(11-12) CTEC308 Elective Length: 1 Semester = .5 Credit

Fees: \$20 (materials)

Prerequisite: CORE and Carpentry 1, 2 and 3A

**Course Description:** This is the third in a series of carpentry courses designed to extend students knowledge and skills related to residential and commercial carpentry. There will be a continued emphasis on equipment selection, use and safety, employability skills, applied academics, and careers. *Carpentry 3B* will focus on stairs and the procedures for planning, cutting, and installing a variety of type of stairs.



#### **DRAFTING 1A**

(9-12) CTEC101 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)
Prerequisite: None

**Course Description:** *Drafting 1A* will introduce students to basic skills of drafting, including lettering, layout, and use of drawing tools including computer assisted drafting (CAD). The students will focus on illustrating 2-dimensional working drawings as well as 3-dimensional isometric and oblique drawings, including proper dimensions. This course is a prerequisite to all other drafting courses and provides a foundation for reading and drawing plans in the construction and manufacturing industry.

#### **DRAFTING 1B**

(9-12) CTEC102 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)
Prerequisite: *Drafting 1A* 

#### Completion of Drafting 1A & 1B = 3 College Tech Prep Credits

**Course Description:** *Drafting 1B* will allow students to gain experience in illustrating advanced pictorial drawings such as isometric, oblique pictorials auxiliary views, and perspective drawings. The students will also learn basic architectural drafting skills and use the skills to draw multiple views of a residential home. The students will also complete an advanced introduction unit in *Computer Assisted Drafting*.

#### **CAD DRAFTING 1A**

(10-12) CTEC103 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)
Prerequisite: *Drafting 1A* 

**Course Description**: Computer Assisted Drafting 1A provides an understanding of the features, limitations, and considerations associated with the operation of a computer based drafting system. Students will gain experience using CAD software and associated plotters, printers, etc. Students will progress in a self-paced curriculum incrementally developing CAD competency as demonstrated by drawings that are produced throughout the course.

#### **CAD DRAFTING 1B**

(10-12) CTEC104 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: CAD Drafting 1A

#### Completion of CAD Drafting 1A & 1B = 3 College Tech Prep Credits

**Course Description**: Computer Assisted Drafting 1B emphasizes CAD techniques such as 3-D applications, rendering and working drawings. Projects are self-paced and require a high degree of self-motivation and discipline in order to attain the completion of the course.

#### **ARCHITECTURAL DRAFTING 1A**

(10-12) CTEC105 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)
Prerequisite: *Drafting 1A* 

**Course Description**: Architectural Drafting 1A exposes students to the basic elements of architectural design, including history of design, building code, site considerations, and mechanical considerations involved in drafting multiple representations of residential and commercial structures.

#### **ARCHITECTURAL DRAFTING 1B**

(10-12) CTEC106 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: Architectural Drafting 1A

#### Completion of Architectural Drafting 1A & 1B = 3 College Tech Prep Credits

**Course Description:** This course continues and completes an introductory program in architectural designs and drafting. The students will complete a large project pertaining to construction of a residence including multiple design drawings.

#### **WELDING 1A**

(9-12) CTEC501 Elective Length: 1 Semester = .5 Credit

Fees: \$25 (Materials)
Prerequisite: None

**Course Description:** Welding 1A follows the guidelines set forth by the American Welding Society standards for an entry level welder. Throughout the course safety will be the primary consideration as the students gain basic knowledge of shielded metal arc welding, oxyfuel welding, oxyfuel cutting, plasma cutting, and electrical tools and equipment. The students will also be introduced to basic shop drawings, weld symbols, and basic visual inspections of welds.

#### WELDING 2B

(9-12) CTEC502 Elective Length: 1 Semester = .5 Credit

Fees: \$25 (Materials)
Prerequisite: Welding 1A

# Completion of 1A & 2B AND Successfully Complete the Welding Competency Exam = 3 College Tech Prep

**Course Description:** Welding 2B is a continuation of Welding 1A and will follow the guidelines set forth by the American Welding Society for entry level welder. Throughout the course safety will be the primary consideration when students continue to use shielded metal arc welding, oxyfuel welding, oxyfuel cutting, plasma cutting, and electrical equipment. The students will also learn to read shop drawings, weld symbols, and advanced visual inspection of welds. The students will also perform Gas Metal Arc Welding and Flux Core Arc welding as well as learn the basics of Gas Tungsten Arc welding.

#### **WELDING 3C**

(10-12) CTEC503 Elective Length: 1 Semester = .5 Credit

Fees: \$25 (Materials)
Prerequisite: Welding 2B

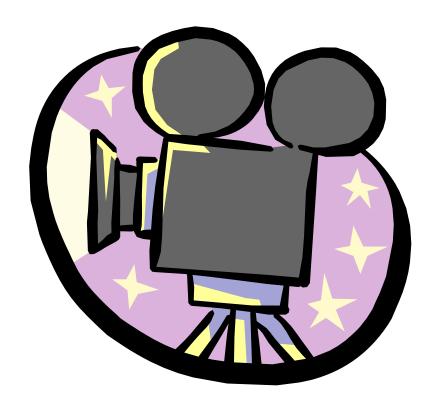
Course Description: Welding 3C is a continuation of Welding 2B and will follow the guidelines set forth by the American Welding Society standards for an entry-level welder. Throughout the course safety will be the primary consideration when students continue to use shielded metal arc welding, oxyfuel welding, oxyfuel cutting, plasma cutting, gas metal arc welding, gas tungsten arc welding and related electrical tools and equipment. The students will also learn to read shop drawings, weld symbols, and advanced visual inspection of welds. The students will also perform gas metal arc welding and flux core arc welding as well as learn the basics of gas tungsten arc welding.

#### **WELDING 4D**

(10-12) CTEC504 Elective Length: 1 Semester = .5 Credit

Fees: \$25 (Materials)
Prerequisite: Welding 3C

Course Description: Welding 4D is a continuation of Welding 3C and will follow the guidelines set forth by the American Welding Society standards for an entry-level welder. Throughout the course safety will be the primary consideration when students continue to use shielded metal arc welding, oxyfuel welding, oxyfuel cutting, plasma cutting, gas metal arc welding, gas tungsten arc welding and related electrical tools and equipment. The students will also learn metal fabrication skills and learn to read shop drawings, weld symbols, and advanced visual inspection of welds. The students will also perform gas metal arc welding and flux core arc welding as well as learn the basics of gas tungsten arc welding.



# ARTS, AV/TECHNOLOGY & COMMUNICATIONS CAREER CLUSTER



#### ARTS, AUDIO/VISUAL TECHNOLOGY & COMMUNICATIONS CLUSTER

#### **Journalism & Broadcasting**

- Broadcast Journalism
- Reporter
- Desktop Publishing

#### Year 1

S1 or S2 - Career Investigations

and

S1 - Digital Photography 1A

S2 - Graphic Design & Publishing (3 College Tech Prep Credits)

or

S1 - Computer Literacy (3 College Tech Prep Credits)

**S2 - Computer Applications (3 College Tech Prep Credits)** 

#### Year 2

S1 - Video Productions 1A

S2 - Video Productions 1B

or

S1 - Graphic Design & Multimedia (3 College Tech Prep Credits)

S2 - Web Design (3 College Tech Prep Credits)

#### Year 3

S1 - Broadcast Journalism 1A

S2 - Broadcast Journalism 1B

#### Year 4

S1 - Radio/Audio Production

S2 - Video Documentary Production

Minimum grade of "C" must be achieved in order to move to the next level of class and be eligible for Tech Prep Credits.

# ARTS, AV TECHNOLOGY & COMMUNICATIONS

#### **DIGITAL PHOTOGRAPHY 1A**

(10-12) CTEM401 Elective Length: 1 Semester = .5 Credit

Fees: \$60 + Deposit for use of district camera

**Prerequisite: None** 

Course Description: This course introduces students to digital photography and its significance in a wide variety of occupations. Students will study the concepts of composition and learn about pixels, file formats, resolution, quality, and compression techniques. Students will learn to shoot high quality photographs using both the automatic and manual controls of a digital camera. Adobe Photoshop will replace the traditional darkroom, and students will learn to download, adjust, crop, and print photos to fulfill a variety of assignments. Techniques for effectively using both natural and artificial light will be emphasized. Students will learn how to prepare and export photos for web sites, pdf files, page layout documents, service bureaus, and electronic communication. All students will create a CD portfolio of their best work.

#### **GRAPHIC DESIGN & PUBLISHING**

(10-12) CTEJ106 Elective Length: 1 Semester = .5 Credit

Prerequisite: Computer Literacy, Computer Applications, or teacher recommendation

#### Completion of Graphic Design & Publishing = 3 College Tech Prep Credits

**Course Description:** *Graphic Design and Publishing* introduces students to the most commonly used desktop publishing features including graphic design techniques, principles of page layout and typography terminology used in the industry. Students will be taught skills needed to integrate text and graphics using graphic design and electronic page assembly software to produce professional quality publications. Critical thinking skills are applied through real-life topics and career-oriented applications.

#### **VIDEO PRODUCTION 1A**

(9-12) CTEM101 Elective Length: 1 Semester = .5 Credit

Fees: \$25 + Deposit for use of district camera

Prerequisite: None

Course Description: This course consists of extensive hands-on instruction in many aspects of video production. Students will view and critically analyze a variety of film and video productions and be able to identify their basic ingredients and how they shape and influence our society and culture. Preproduction planning techniques, including developing basic scripts and storyboards, will be developed. Students will learn how to use field and studio cameras, tripods, lights, and microphones, working alone and in small groups, to produce progressively more sophisticated productions throughout the semester. Students will learn how to use digital-editing software to record and edit narration, add music, adjust sound levels, create titles, insert transitions and effects, and add photos. Self-motivation and good time management skills are important. Out-of-class work is required for some projects.

#### **VIDEO PRODUCTION 1B**

(9-12) CTEM102 Elective Length: 1 Semester = .5 Credit

Fees: \$25 + Deposit for use of district camera

Prerequisite: Video Productions 1A

Course Description: This course builds on skills mastered in *Video Productions 1A*. Students will work independently and in small groups to produce, direct, shoot, and edit a variety of broadcast-quality video productions including short instructional/how-to videos, music videos, dramas, documentaries, and sport/recreational videos. Students will set up and operate studio cameras, lights, microphones, and equipment in order to assist effectively with the daily broadcast of school announcements. Professional digital editing skills will be developed including the use of digital effects, character generators, scale and motion techniques, and video and audio layering. Students will communicate and work with a local non-profit agency to produce a broadcast-quality public service announcement. In addition, students will shadow a professional videographer, director, or editor and work cooperatively on a real assignment. Significant out-of-class work is required for some projects. Students will create a CD of their best work.

#### **BROADCAST JOURNALISM 1A**

(10-12) CTEM201 Elective Length: 1 Semester = .5 Credit

Fees: \$25

Prerequisite: Video Production 1A and 1B

Course Description: This course features extensive hands-on instruction in producing, shooting, and editing news and feature stories for broadcast audiences. Students will work independently and in small groups to record stories using field and studio cameras, tripods, microphones, and lights. Students will frequently view and critically analyze local and national news stories/broadcasts. Basic interviewing and newsgathering techniques are a key component of the course. Students will learn how to prepare effective interview questions, find and contact sources, research background information, script voice-over and anchor narration, and meet strict deadlines. Groups of students will rotate through different crew positions including director, camera operator, audio engineer, and anchor. All students will use Final Cut Pro to edit stories. Students will assist in broadcasting daily school announcements and contribute news packages for a student television program. Significant out-of-class time will be required for some projects. Students will create a DVD containing all of their news stories.

#### **BROADCAST JOURNALISM 1B**

(10-12) CTEM202 Elective Length: 1 Semester = .5 Credit

Fees: \$25

Prerequisite: Broadcast Journalism 1A

**Course Description:** This course builds on skills mastered in *Broadcast Journalism 1A*. Students will work independently and in small groups to produce, record, and edit news and feature stories for broadcast audiences. Advanced newsgathering techniques will be developed, and field trips to television and production facilities will be offered. Students will independently operate all control room and studio equipment and be familiar with all production jobs including director, camera operator, audio engineer, and anchor. Students will be in charge of broadcasting daily school announcements and produce a monthly student television program. Significant out-of-class time will be required for some projects. Students will create a DVD containing all of their news stories.

#### **RADIO/AUDIO PRODUCTION**

(10-12) CTEM302 Elective Length: 1 Semester = .5 Credit

Fees: \$25

Prerequisite: Video Production 1B

Course Description: This course examines the history of radio and the evolution of analog and digital audio production. Hands-on instruction in audio production are featured, with students learning how to script, record, and digitally edit a variety of audio productions including news reports, oral histories, ads, audio books, features, and narration/music soundtracks for video productions. Students will be introduced to basic radio announcing and the skills necessary to operate a variety of control room and studio sound equipment. Media literacy and critical examination skills are developed through written analysis and discussions of radio and audio programs. Self-motivation is a must since much of the work is independent in nature. All students will create a CD portfolio of best work. Out-of-class work is required for some projects.

#### **VIDEO DOCUMENTARY PRODUCTION**

(10-12) CTEM301 Elective Length: 1 Semester = .5 Credit

Fees: \$25 + Deposit for use of district camera

Prerequisite: Video Productions 1B and Radio/Audio Production

Course Description: This course builds on skills mastered in *Video Production 1A & 1B*, as well as *Radio/Audio Production*. Designed for advanced students, this course gives participants a voice by allowing them to produce, direct, and edit broadcast-quality video documentaries. Students will work independently or in small groups and will be encouraged to focus on local issues, service-learning experiences, non-profit agencies, and projects that satisfy/complement a requirement in other classes. A variety of film, television, and independent and student documentaries will be screened and critically analyzed. Students will demonstrate mastery of advanced field and studio camera operation, digital editing, scriptwriting, and interviewing skills. Significant out-of-class work is required for some projects. All students will create a DVD portfolio of all completed projects.



# BUSINESS MANAGEMENT & ADMINISTRATION

#### BUSINESS MANAGEMENT & ADMINISTRATION SUPPORT CLUSTER

#### Year 1

S1 or S2 - Career Investigations

and

S1 - Computer Literacy (3 College Tech Prep Credits)

S2 - Computer Applications (3 College Tech Prep Credits)

#### Year 2

S1 - Graphic Design & Multimedia (3 College Tech Prep Credits)

S2 - Web Design (3 College Tech Prep Credits)

#### Year 3

S1 - Accounting 1A = .5 Math Credit

S2 - Accounting 2B (Completion of 1A & 1B = 3 College Tech Prep Credits)

#### Year 4

S1 - Accounting 3C

S2 - Accounting 4D (Completion of 3C & 4D = 3 College Tech Prep Credits)

Minimum grade of "C" must be achieved in order to move to the next level of class and be eligible for Tech Prep Credits.

# **BUSINESS, MANAGEMENT & ADMINISTRATION**

#### **COMPUTER LITERACY**

(9-12) CTEJ103 Elective Length: 1 Semester = .5 credit

**Prerequisite: None** 

#### Completion of Computer Literacy = 3 College Tech Prep Credits

**Course Description:** Students will develop and/or refine touch-keyboarding skills for documentation production. Along with keyboarding skills, students may successfully complete the Internet and Computing Core Certification (IC³) program which provides guidelines for the knowledge and skills required for basic use of computer hardware, software, networks, and the Internet. IC³ is a global, validated, standards-based training and certification program for basic computing and Internet literacy.

#### **COMPUTER APPLICATIONS**

(9-12) CTEJ105 Elective Length: 1 Semester = .5 credit Prerequisite: Computer Literacy

#### Completion of Computer Applications = 3 College Tech Prep Credits

**Course Description:** Students will produce a variety of personal and business documents. An emphasis is placed on increased speed with accuracy using correct touch keyboarding techniques to produce the documents. This class provides students the opportunity to practice introductory word processing, database, spreadsheet, Internet, and multimedia presentations. MOS testing is available.

#### **GRAPHIC DESIGN AND MULTIMEDIA**

(10-12) CTEJ107 Elective Length: 1 Semester = .5 Credit

Prerequisite: Computer Literacy or Computer Applications or Instructor Approval

#### Completion of Graphic Design and Multimedia = 3 College Tech Prep Credits

**Course Description**: Students will use industry-standard multimedia and web-authoring software to create computer presentations and learn business-style presentation techniques. This project-based class begins with software basics and progresses to blend text, computer graphics or illustrations, audio, animation, and Internet research into a variety of business and cross-curricular presentations.

#### **WEB DESIGN**

(10-12) CTEJ108 Elective Length: 1 Semester = .5 Credit

Prerequisite: Computer Literacy or Computer Applications and Graphic Design & Multimedia, or Instructor

**Approval** 

#### Completion of Web Design = 3 College Tech Prep Credits

**Course Description:** Students will learn appropriate web site design techniques to include graphics, layout, text, layers, tables, framesets, and appropriate scripting [HTML and XHTML tags, Cascading Style Sheets (CSS), java scripts, and applets].

#### **ACCOUNTING 1A**

(10-12) CTEJ109 Elective or .5 Math Credit

**Length:** 1 **Semester = .5 Credit** 

(Successful completion of this course may be used to satisfy .5 credit of math credit)

Fees: \$15

Prerequisite: None

**Course Description:** Students are introduced to accounting concepts, principles, and procedures. This course provides students with the fundamental skills needed to understand the basic accounting cycle for a service business organized as a sole proprietorship and a merchandising business organized as a partnership. Students learn through manual and computerized applications.

#### **ACCOUNTING 2B**

(10-12) CTEJ110 Elective Only

**Length:** 1 **Semester = .5 Credit** 

Fees: \$15

Prerequisite: Accounting 1A

#### Completion of Accounting 1A & 2B = 3 College Tech Prep Credits

**Course Description:** This course is a continuation of *Accounting 1A*. Students develop skills, knowledge, and attitudes necessary to accomplish business accounting or to further their education in the field of accounting. Students will learn to use specialized journals, how to handle uncollectible accounts, and account for plant assets and depreciation. Students will be able to further refine the basic concepts and skills introduced in *Accounting 1A*. Students will be provided with an overview of accounting for a merchandising business organized as a corporation as well as an overview of the legal environment of business.

#### **ACCOUNTING 3C**

(10-12) CTEJ111 Elective Only

**Length:** 1 **Semester = .5 Credit** 

Fees: \$15

Prerequisite: Accounting 2B

**Course Description:** This advanced accounting course expands on topics learned in the first year courses while adding new topics about management accounting, cost accounting, not-for-profit accounting, and financial analysis. This course is also excellent background and preparation for college business and accounting courses and business majors. This course would benefit students interested in careers as bookkeepers, accountants, business managers, or wanting to be self-employed.

#### **ACCOUNTING 4D**

(10-12) CTEJ112 Elective Only

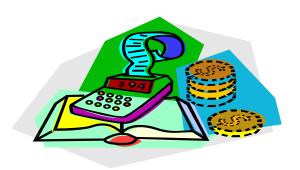
**Length:** 1 **Semester = .5 Credit** 

Fees: \$15

Prerequisite: Accounting 3C

#### Completion of Accounting 3C & 4D = 3 College Tech Prep Credits

Course Description: This advanced accounting course expands on topics learned in the first year course and Accounting 3C with additional work in the topics about management accounting, cost accounting, not-for-profit accounting, and financial analysis. This course is excellent background and preparation for college business and accounting courses and business majors. This course would benefit students interested in careers as bookkeepers, accountants, business managers, or wanting to be self-employed.



#### **YEARBOOK PUBLICATIONS 1A**

(10-12) CTEJX07 Elective Length: 1 Semester = .5 Credit

Prerequisite: Computer Literacy, Computer Applications, Graphic Design & Publishing, Graphic Design &

Multimedia, or Instructor Approval.

**Course Description:** This course will provide students experience in the methods of journalism including experience in design, preparation, production, and finances of the school yearbook. Emphasis will be on business operations, designing schedules, meeting deadlines, photography, copywriting, and layout. This course demands that students demonstrate initiative, accept responsibility for meeting deadlines, and work independently or as a group member. As a participant in this class, students should expect to spend time outside of the normal day gathering material for the final product.

#### YEARBOOK PUBLICATIONS 1B

(10-12) CTEJX08 Elective Length: 1 Semester = .5 Credit

Prerequisite: Yearbook Publications 1A or Instructor Approval.

**Course Description:** This course will provide students with more in-depth experiences in the methods of journalism including design, preparation, production, and finances of the school yearbook. Emphasis will be on business operations, designing schedules, meeting deadlines, photography, copywriting, and layout. This course demands that students continue to demonstrate initiative, accept responsibility for meeting deadlines, and work independently or as a group member. As a participant in this class, students should expect to spend time outside of the normal day gathering material for the final product.

#### STUDENT OFFICE ASSISTANTS

(11-12) CTEJX00 Elective Length: 1 Semester = .5 Credit

Prerequisite: 2.0 GPA or above, excellent conduct, good attendance and office approval.

This is a pass/fail course.

**Course Description:** This is a "hands–on" training course that will allow students to develop professional office skills. Students may be assigned to the administrative office, nurses' office or the counseling office. The students will be instructed and graded on their mastery of the technical and human-service skills that all office workers need in order to excel in the highly competitive work environment.

#### STUDENT CLASSROOM ASSISTANTS

(11-12) CTEJX02 Elective Length: 1 Semester = .5 Credit

Prerequisite: 2.0 GPA or above, excellent conduct, good attendance, teacher approval.

This is a pass/fail course.

**Course Description:** This is a "hands–on" training course that will allow students to develop basic skills necessary in a particular instructional area. This course promotes student responsibility in job performance and student understanding of the diverse responsibilities, activities and skills of the teaching profession.

#### STUDENT LAB ASSISTANTS

(11-12) CTEJX03 Elective Length: 1 Semester = .5 Credit

Prerequisite: 3.0 GPA or above, excellent conduct and attendance, successful completion of related content and curriculum and instructor approval. This is a graded position.

**Course Description:** This is a "hands–on" training course that will allow students to develop instructional skills and gain insights about all aspects of science as a career. Students will assist teachers in working with students who are experiencing academic difficulties in the class. The students will be instructed on the techniques of explaining assignments, tutoring one-on-one, or assisting small groups during labs. Instructional techniques, labs protocols, verbal and non-verbal communication skills will be emphasized.

#### STUDENT TUTORING ASSISTANTS

(11-12) CTEJX04 Elective Length: 1 Semester = .5 Credit

Prerequisite: 3.0 GPA or above, excellent conduct and attendance, successful completion of related content and curriculum and instructor approval. Pass/Fail or letter grade may be given at the discretion of the teacher.

**Course Description:** This is a "hands–on" training course that will allow students to develop instructional skills and gain insights about teaching as a career. Students will assist teachers in working with students who are experiencing academic difficulties in the class. The students will be instructed on the techniques of explaining assignments, tutoring one-on-one, or assisting small groups. Instructional techniques, verbal and non-verbal communication skills will be emphasized.

#### STUDENT LIBRARY ASSISTANTS

(11-12) CTEJX05 Elective Length: 1 Semester = .5 Credit

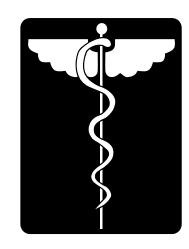
Prerequisite: 2.0 GPA or above, excellent conduct, good attendance and librarian's approval.

**Course Description:** This is a "hands–on" training course that will allow students to develop technical library skills. The students will be instructed and graded on their mastery of the technical and human-service skills that all library workers need in order to excel in the highly structured and professional work environment.



# HEALTH SCIENCE CAREER CLUSTER





#### HEALTH SCIENCE CLUSTER

**Therapeutic Services** 

- Certified Nursing Assistant
- **Diagnostic Services** 
  - Emergency Medical Technician

#### Year 1

S1 or S2 - Career Investigations

and

- S1 Industrial Safety & First Aid
- **S2** Introduction to Health Careers (Completion = 2 College Tech Prep Credits)

#### Year 2

- S1 Nutrition
- **S2 Clinical Procedures** (Completion = 4 College Tech Prep Credits)

#### Year 3

- S1 Medical Terminology 1A
- S2 Medical Terminology 1B (Completion of both 1A & 1B = 3 College Tech Prep Credits)

#### Year 4

- S1 Emergency Medical Technician 1A (EMT)
- S2 Emergency Medical Technician 1B (EMT) \* Eligible for Certification exam
- or (Completion of both EMT 1A & 1B = 6 College Tech Prep Credits)
- S1 Math in Health Care (Completion = 3 College Tech Prep Credits)
- S2 Certified Nursing Assistant (CNA) \* Eligible for Certification exam
- S2 Certified Nursing Assistant Clinical Experience (CNA) \* Eligible for Certification exam (Completion of both CNA & CNA Clinical = 9 College Credits)

Minimum grade of "C" must be achieved in order to move to the next level of class and be eligible for Tech Prep Credits.

## **HEALTH SCIENCE**

#### **INDUSTRIAL SAFETY & FIRST AID**

(9-12) CTEK108 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials) Prerequisite: None

Course Description: Provides instruction on emergency first aid awareness and techniques. Students acquire knowledge and skills necessary for managing emergencies in a medical/dental office and other clinical or industrial settings as well as for personal use. The course includes CPR training with AED, control of bleeding and shock management, recognizing heart problems, stroke, poisoning, burns, diabetes, seizures, and dealing with major trauma injuries such as fractures, head, neck, and back injuries. Also covered are hypothermia, frostbite, and insect stings. Students will be introduced to Mines Safety Health Administration (MSHA) Certification requirements. OSHA and NIOSH safety requirements in a variety of work settings are included. Personal safety is stressed throughout the course. Upon satisfactory completion of the course, students will receive an American Heart Association First Aid and CPR for Adults, Children, and Infants card, including AED.

#### **INTRODUCTION TO HEALTH CAREERS**

(9-12) CTEK101 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)
Prerequisite: None

#### Completion of Introduction to Health Careers = 2 College Tech Prep Credits

**Course Description:** Students explore a variety of health care related careers and a basic overview of the following areas: roles and responsibilities of health care workers, job and educational opportunities, medical terminology, medical math, legal and ethical issues, confidentiality, personal safety and infection control, problem solving, basic medical skills, and anatomy and physiology related to emergency care.

#### **NUTRITION**

(9-12) CTEK104 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: Introduction to Health Careers

**Course Description:** *Nutrition* is an introduction to the principles of nutrition and their relationship to the life cycle. Focus on the importance nutrition plays in personal health, and how to objectively evaluate nutritional intake using scientifically sound resources.

#### **CLINICAL PROCEDURES**

(11-12) CTEK105 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: Introduction to Health Careers & Keyboarding skills 25 wpm

#### Completion of Clinical Procedures = 4 College Tech Prep Credits

**Course Description:** This course is an introduction to the theoretical basis and the performance competencies for the clinical duties performed by medical assistants in outpatient facilities. Topics include safety and infection control, care of patients in the examining room, use and care of medical instruments and supplies, assisting physicians with clinical procedures, administering medications, and introduction to clinical laboratory procedures.

#### MATH IN HEALTH CARE

(9-12) CTEK112 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)
Prerequisite: None

#### Completion of Math in Health Care = 3 College Tech Prep Credits

**Course Description:** Practical application of mathematics in healthcare, including arithmetic review, decimal fractions, percent, interest, ratio proportion, metric measurement, mathematical applications in medical measurement instruments, graphs, charts, medications, accounting, and office management.

#### **MEDICAL TERMINOLOGY 1A**

(10-12) CTEK102 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials) Prerequisite: None

**Course Description:** This course begins the study of medical terminology including analysis and origin of word roots, prefixes, and suffixes. Understanding the word components, students will be able to build, spell, and define medical words. Content will be presented by body systems focusing on terms for anatomy, diagnostic, laboratory and medical specialties; including use of medical dictionary, word pronunciation, and abbreviations. *Medical Terminology 1A* will focus upon the content from chapters 1-10 in the textbook Medical Terminology; A Systems Approach by Gylys & Wedding. This course is designed for students in the Health Science Career Cluster.

#### **MEDICAL TERMINOLOGY 1B**

(10-12) CTEK103 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: Medical Terminology 1A

#### Completion of Medical Terminology 1A & 1B = 3 College Tech Prep Credits

**Course Description:** Students will review the first semester and continue to build their foundation of medical terminology. Students will continue to study medical terminology including the analysis and origin of word roots, prefixes, and suffixes. By understanding the word components students will be able to build, spell, and define medical words. *Medical Terminology 1B* will focus upon content from chapters 11-16 in the textbook Medical Terminology: A Systems Approach by Gylys & Wedding. *Medical Terminology 1B* includes the use of a medical dictionary, word pronunciation, and abbreviations. This course is designed for students in the Health Science Career Cluster.

#### **EMERGENCY MEDICAL TECHNICIAN I 1A**

(12) CTEK901 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: Industrial Safety & First Aid, Introduction to Health Careers

Course Description: This is a college level course prerequisite to UAF/TVC's Paramedic Program, aligned with the EMT Basic National Standards, and is the foundation to Emergency Services and Fire Science programs nationwide. Students will learn basic life support CRP at the Health Care Provider level, including the use of an automated external defibrillator (AED). Course objectives and skills include roles and responsibilities, legal and ethical issues, medical and trauma patient assessment, vital signs and medical history, hemorrhage and shock management, splinting, oxygen therapy, airway management and suction, scene evaluation and safety, cardiac emergencies, obstetrics, infants and pediatrics, stabilizing for transport, and ambulance operations.

#### **EMERGENCY MEDICAL TECHNICIAN I 1B**

(12) CTEK902 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: Industrial Safety & First Aid, Introduction to Health Careers, EMT I 1A

#### Completion of EMT 1A & 1B = 6 College Tech Prep Credits

**Course Description:** This is the second semester of EMT I and continues with course objectives and skills that include roles and responsibilities, legal and ethical issues, medical and trauma patient assessment, vital signs and medical history, hemorrhage and shock management, splinting, oxygen therapy, airway management and suction, scene evaluation and safety, cardiac emergencies, obstetrics, infants and pediatrics, stabilizing for transport, and ambulance operations.

Upon successful completion of both semesters, students are eligible to take the State of Alaska written and practical tests and the National Registry EMT Basic test. Students must be 18 years old by the completion of the course to receive Sate of Alaska certification.

#### **CERTIFIED NURSING ASSISTANT**

(11-12) CTEK106 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: Introduction to Health Careers, cumulative 2.5 grade point average, excellent attendance

**Course Description:** This course meets the educational requirements for certification of a CNA in the state of Alaska. Areas covered include safety, communication skills, growth and development, patient surgery preparation, vision and hearing problems, rehabilitation, care of the elderly, common health problems, sexuality, home health care, and basic emergency care. Students mastering the competencies of this course should be well prepared to take and pass the examination of Nursing Assistant Certification. Six 8-hour days of clinical work and weekly skills labs are required.

#### CERTIFIED NURSING ASSISTANT CLINICAL EXPERIENCE

(11-12) CTEK107 Elective Length: 1 Semester = .5 Credit

Fees: \$15 (materials)

Prerequisite: Introduction to Health Careers, concurrent enrollment in Certified Nursing Assistant

#### Completion of CNA & CNA Clinical = 9 College Credits

**Course Description:** Basic nursing skills necessary to assist the nurse and be an efficient health care team member. Students will demonstrate positive communication while providing physical and emotional care in a variety of health care settings. Content meets the skills training requirement to take the State of Alaska exam. Students must be in good physical condition, have a health care provider CPR card, and have immunizations appropriate for the clinical site.

#### PROFESSIONALISM IN HEALTH CARE

(10-11) Course Number Pending

**LENGTH:** 1 Semester = .5 Credit

Prerequisite: Introduction to Health Careers or instructor permission

**Course Description:** This course teaches the critical employability skills to ensure success for the professional medical secretary, receptionists, and other healthcare workers who interface with patients and other medical professionals. This course stresses the importance if good character, a strong work ethic, including business manners, customer service, and dressing for success. Students aspiring to a career in the field of health care must understand the need for professionalism and performing in a competent manner.

**NOTE:** This is a pilot course.

#### **OPTIONS TEEN PARENTING PROGRAM**

#### **PREGNANCY**

(9-12) CTEX000 Elective Length: 2 semesters = 1 credit

**Prerequisite: None** 

**Course Description:** This course is designed to assist teen parents in understanding the importance of proper prenatal nutrition and care, as well as the stages of pregnancy and the development of the fetus. Also included is information regarding labor and delivery, the postpartum period, and newborn care.

#### **CHILD DEVELOPMENT 1A**

(9-12) CTEX101 Elective Length: 1 semester = .5 credit

**Prerequisite: None** 

Course Description: This course is designed to assist teen parents in understanding the importance of providing a safe, healthy, and nurturing environment for their children as they progress through the various developmental stages. It will provide students the opportunity to develop an understanding of their role as a parent and their parental rights and responsibilities. Positive parenting will be addressed by examining discipline styles and behavior issues from a cultural and societal perspective. Strategies to plan developmentally appropriate activities and discipline strategies will be emphasized. Health issues, immunizations, and handling emergency situations will be included in this course.

#### **CHILD DEVELOPMENT 1B**

(9-12) CTEX102 Elective Length: 1 semester = .5 credit

Prerequisite: Teen Parenting: Child Development 1A

**Course Description:** This course is the second semester of a year long course designed to assist teen parents in understanding their role as a parent and their parental rights and responsibilities. *Child Development 2B* will examine behavior issues and compare and contrast discipline styles, looking at it from a cultural and societal perspective. Positive parenting will be emphasized. Health issues, immunizations, and handling emergency situations will also be covered.

#### LIFE SKILLS 1

(9-12) CTEX103 Elective Length: 1 Semester = .5 Credit

**Prerequisite: None** 

**Course Description:** This course is designed to assist teen parents in accessing the skills and services they need to become successful adults in society. The topics range from communication skills to the legal issues that teens face, as well as healthy living and preparing for post high school life. Topics covered in *Life Skills 1* are self-awareness, types of relationships, cycle of violence, media, communications, and responsibility.

#### **LIFE SKILLS 2**

(9-12) CTEX104 Elective Length: 1 Semester = .5 Credit

**Prerequisite: None** 

**Course Description:** This course is designed to assist teen parents in accessing the skills and services they need to become successful adults in society. The topics range from communication skills to the legal issues that teens face, as well as healthy living and preparing for post high school life. Topics addressed in *Life Skills 2* will be decision-making and problem solving, employability skills, time management, lifestyle, leadership, independent living, and community resources.

#### LIFE SKILLS 3

(9-12) CTEX105 Elective Length: 1 Semester = .5 Credit

**Prerequisite: None** 

**Course Description:** This course is designed to assist teen parents in accessing the skills and services they need to become successful adults in society. The topics range from communication skills to the legal issues that teens face, as well as healthy living and preparing for post high school life. Topics covered will be academic success, goal setting, personal and family life, budget, employability skills, teens and the law.

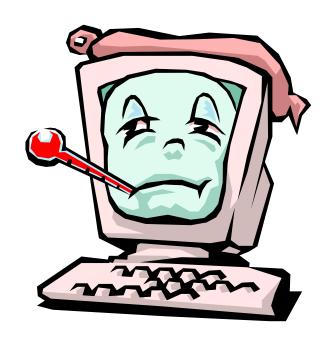
#### **LIFE SKILLS 4**

(9-12) CTEX106 Elective Length: 1 Semester = .5 Credit

**Prerequisite: None** 

**Course Description:** This course is designed to assist teen parents in accessing the skills and services they need to become successful adults in society. The topics range from communication skills to the legal issues that teens face, as well as healthy living and preparing for post high school life. Topics addressed will be disease prevention, nutrition, menu planning, cooking, eating disorders, and basic CPR/First Aid.

# INFORMATION TECHNOLOGY (IT) CAREER CLUSTER



#### INFORMATION TECHNOLOGY CLUSTER

#### **Network Systems**

• CISCO Academy (computer & network support specialist)

#### **Interactive Media**

- Web Page Designer
- Web Page Developer

#### Year 1

S1 or S2 - Career Investigations

and

- S1 Introduction to Information Technology 1A
- S2 Introduction to Information Technology 1B

#### Year 2

- S1 IT Essentials 1A Prepare for A+ Certification exam (3 College Tech Prep Credits)
- S2 IT Essentials 1B Prepare for A+ Certification exam (3 College Tech Prep Credits)

or

- S1 Computer Literacy (3 College Tech Prep Credits)
- S2 Computer Application (3 College Tech Prep Credits)

#### Year 3

- S1 Graphic Design & Multimedia (3 College Tech Prep Credits)
- S2 Web Design (3 College Tech Prep Credits)

#### Year 4

- S1 (2 period block) Computer Networking 1 (4 College Tech Prep Credits)
  - Computer Networking 2 (4 College Tech Prep Credits)
- S2 (2 period block) Computer Networking 3 (4 College Tech Prep Credits)
  - Computer Networking 4 (4 College Tech Prep Credits)
    - \*CISCO Certified Entry-Level Network Technician (CCENT) Exam
    - \*CISCO Certified Network Association (CCNA) Exam

Minimum grade of "C" must be achieved in order to move to the next level of class and be eligible for Tech Prep Credits.

#### INFORMATION TECHNOLOGY

#### **INTRODUCTION TO INFORMATION TECHNOLOGY 1A**

(9-12) CTEF201 Elective Length: 1 Semester = .5 Credit

**Prerequisite: None** 

**Course Description:** *Introduction to Information Technology* is a two semester course that explores the four main areas of information technology: Information Support and Services, Interactive Media, Networking Systems, and Programming and Software Development. The first semester, *Introduction to Information Technology 1A*, covers the knowledge and skills associated with Information Support and Services careers. The goal of this course is to help students who are interested in an information technology career explore the Information Technology field and to prepare them for the core IT classes.

#### **INTRODUCTION TO INFORMATION TECHNOLOGY 1B**

(9-12) CTEF202 Elective Length: 1 Semester = .5 Credit

Prerequisite: Introduction to Information Technology 1A

Course Description: Introduction to Information Technology is a two semester course that explores the four main areas of information technology: Information Support and Services, Interactive Media, Networking Systems, and Programming and Software Development. The second semester, Introduction to Information Technology 1B, covers the knowledge and skills associated with Interactive Media, Networking Systems, and Programming and Software Development. The goal of this course is to help students who are interested in an information technology career explore this field and to prepare them for the core IT classes.

#### IT ESSENTIALS 1A: PC HARDWARE AND SOFTWARE

(9-12) CTEF203 Elective Length: 1 Semester = .5 Credit

Fees: \$10

Prerequisite: Must pass Information Technology 1A & 1B with 70% or higher grade

#### Completion of IT Essentials 1A = 3 College Tech Prep Credits

**Course Description**: *IT Essentials 1A: PC Hardware and Software* presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for the next course offering, *IT Essentials 2A* and Comp TIA's A+ certification.

#### IT ESSENTIALS 1B: PC OPERATING SYSTEMS

(9-12) CTEF204 Elective Length: 1 Semester = .5 Credit

Prerequisite: Information Technology 1A & 1B and IT Essentials 1A

#### Completion of IT Essentials 1B = 3 College Tech Prep Credits

**Course Description:** *IT Essentials 1B: PC Operating Systems* presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Through hands-on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for Comp TIA's A+ certification.

#### **COMPUTER NETWORKING 1A**

(10-12) CTEF301 Elective Length: 1 Semester = .5 Credit

Prerequisite: Must pass IT Essentials 1A & 1B with a 70% or higher grade, Computer Programming or

**Instructor Approval** 

#### Completion of Computer Networking 1A = 4 College Tech Prep Credits

**Course Description:** *Computer Networking 1A* is the first of four courses leading to the CISCO Certified Network Associate (CCNA) certification. It introduces students to the networking field. The course focuses on network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, router programming, Ethernet, internet protocol (IP) addressing, and network standards.

#### **COMPUTER NETWORKING 2B**

(10-12) CTEF302 Elective Length: 1 Semester = .5 Credit

Prerequisite: Computer Networking 1A

#### Completion of Computer Networking 2B = 4 College Tech Prep Credits

Course **Description:** Computer Networking 2B is the second of four courses leading to the CISCO Certified Network Associate (CCNA) certification. Students will develop skills on how to configure a router, manage CISCO IOS Software, configure routing protocols, and create access lists controlling access to the router.

#### **COMPUTER NETWORKING 3C**

(10-12) CTEF303 Elective Length: 1 Semester = .5 Credit

Prerequisite: Computer Networking 2B

#### Completion of Computer Networking 3C = 3 College Tech Prep Credits

**Course Description:** Computer Networking 3C is the third of four courses leading to the CISCO Certified Network Associate (CCNA) certification. It focuses on advanced IP addressing techniques, intermediate routing protocols, command line interface configuration of switches, virtual LANs, and Ethernet switching protocols.

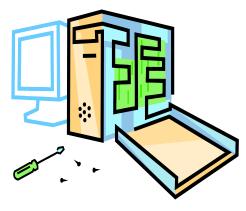
#### **COMPUTER NETWORKING 4D**

(10-12) CTEF304 Elective Length: 1 Semester = .5 Credit

Prerequisite: Computer Networking 3C

#### Completion of Computer Networking 4D = 3 College Tech Prep Credits

**Course Description:** Computer Networking 4D is the last of four courses leading to the CISCO Certified Network Associate (CCNA) certification. It introduces students to the fundamentals of WAN technologies including WAN devices, encapsulation formats and communication. Successful completion of this course prepares students for the CCNA exam, which must be successfully passed for CCNA certification.





# TRANSPORTATION DISTRIBUTION & LOGISTICS CAREER CLUSTER

#### TRANSPORTATION DISTRIBUTION & LOGISTICS CLUSTER

\* (Minimum grade of C to move to the next level of class)

#### **Facility & Mobile Equipment Maintenance**

- Automotive Technician
- Auto Body Repair Technician
- Small Engine Repair Technician

#### Year 1

S1 or S2 - Career Investigations

and

- S1 Small Engines 1A (Introduction to Small Engines) (1 College Tech Prep Credit)
- S2 Small Engines 2B (Snow Machine and Outboard) (1 College Tech Prep Credit)

or

- S1 Introduction to Collision Repair
- S2 Structural Analysis and Damage Repair 1A

#### Year 2

- S1 Small Engines 3C (Motorcycle/ATV)
- S2 Small Engines 4D (Advanced Small Engines)

(Successful completion of year 1 & 2 makes you eligible to take the OPEESA certification exam) or

- S1 Structural Analysis and Damage Repair 1B
- S2 Non-Structural Analysis and Damage Repair 1A

#### Year 3

- S1 Basic Automotive Technology
- S2 Automotive Technology I (Steering and Suspension)

or

- S1 Non-Structural Analysis and Damage Repair 1B
- S2 Plastics & Adhesives 1A

#### Year 4

S1 & S2 - (2 period block) Automotive Technology IIA (Electrical and Brakes)

**Automotive Technology IIB (Advanced Auto)** 

(Successful completion of year 1-4 makes you eligible to take the ASE certification exam)

S1 - Plastics & Adhesives 1B

S2 - Painting & Refinishing 1A & 1B

(Successful completion of year 1-4 makes you eligible to take the ICAR certification exam)

Minimum grade of "C" must be achieved in order to move to the next level of class and be eligible for Tech Prep Credits.

#### TRANSPORTATION, DISTRIBUTION & LOGISTICS

#### **SMALL ENGINES PATHWAY:**

#### **SMALL ENGINES 1A** (Introduction to Small Engines)

(9-12) CTEE301 Elective Length: 1 Semester = .5 Credit

Fees: \$15

**Prerequisite: None** 

#### Completion of Small Engines 1A = 1 College Tech Prep Credit

**Course Description:** This course covers the principles of small gasoline and diesel engines, safe working habits, employability skills, and environmental concerns related to internal combustion.

#### SMALL ENGINES 2B (Snow Machine/Outboard Repair)

(9-12) CTEE302 Elective Length: 1 Semester = .5 Credit

Fees: \$15

Prerequisite: Small Engines 1A

#### Completion of Small Engines 2B = 1 College Tech Prep Credit

**Course Description:** This course is an advanced lab setting emphasizing tools and equipment, fuel systems, and electrical systems.

#### **SMALL ENGINES 3C** (Motorcycle and ATV)

(9-12) CTEE303 Elective Length: 1 Semester = .5 Credit

Fees: \$15

Prerequisite: Small Engines 2B

**Course Description**: *Small Engines 3C – Motorcycle ATV* is designed to provide students with a working knowledge of motorcycle and ATV recreational vehicle operation and service. Instruction in major engine systems operation and common engine service techniques is included.

#### **SMALL ENGINES 4D (Advanced Small Engines)**

(9-12) CTEE304 Elective Length: 1 Semester = .5 Credit

Fees: \$15

Prerequisite: Small Engines 3C

Course Description: This course is the last in a series and places extra emphasis on preparing students for employment.

#### **BASIC AUTOMOTIVE TECHNOLOGY**

(11-12) CTEE101 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Junior standing, completion of Small Engines course sequence with grade(s) "C" or better.

**Course Description:** *Basic Automotive Technology* begins the class and shop instruction and tasks set forth in the new National Automotive Technician Educational Foundation (NATEF) General Service Technician (GST) industry curriculum.

#### **AUTOMOTIVE TECHNOLOGY I**

(11-12) CTEE102 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Junior standing, completion of *Basic Automotive Technology* course sequence with grade(s)

"C" or better.

NOTE: Students must earn a grade of "B" or better in *Automotive Technology I*, pass a mechanical aptitude test as specified by NATEF, and have instructor approval before admittance to *Automotive Technology IIA*.

**Course Description:** *Automotive Technology I* continues with classroom and shop instruction and tasks set forth in the new National Automotive Technician Education Foundation (NATEF) General Service Technician (GST) industry curriculum. Participation slots in Skills USA and Ford/AAA state and national competitions may be available for select students who qualify.

#### **AUTOMOTIVE TECHNOLOGY IIA**

(12) CTEE103 Elective

**Length:** 1 Semester x 2 hour block = 1 Credit

Fees: \$20

Prerequisite: Senior standing, completion of *Automotive Technology I* with a grade of "B" or better, pass a mechanical aptitude test as specified by NATEF, and Instructor Approval.

**Course Description:** *Automotive Technology IIA* is the first semester of the classroom and shop tasks required for National Automotive Technician Education Foundation (NATEF) General Services Technician (GST) certification. Participation in Skills USA and Ford/AAA competitions at state and national levels may be available to select students who qualify.

#### **AUTOMOTIVE TECHNOLOGY IIB**

(12) CTEE104 Elective

**Length:** 1 Semester x 2 hour block = 1 Credit

Fees: \$20

Prerequisite: Senior standing, completion of *Automotive Technology* with a grade of "B" or better, pass a mechanical aptitude test as specified by NATEF, and Instructor approval.

**Course Description:** Automotive Technology IIB completes the classroom and shop tasks required for National Automotive Technician Education Foundation (NATEF) General Services Technician (GST) certification. Participation in Skills USA and Ford/AAA competitions at state and national levels may be available to select students who qualify.



#### **COLLISION REPAIR PATHWAY:**

#### INTRODUCTION TO COLLISION REPAIR

(9-12) CTEE401 Elective Length: 1 Semester = .5 Credit

Fees: \$20

**Prerequisite: None** 

**Course Description:** *Introduction to Collision Repair* is an introduction to the knowledge, attitudes, and practical skills needed to work successfully as a Collision Repair Technician. The importance of basic vehicle and industry knowledge, understanding, entrepreneurship, and business management including reading damage reports, the estimating process, and developing a repair plan will be addressed. Shop and occupational safety skills, tool-care and use, comprehending and complying with requirements concerning ethics, employability skills, legal liability consequences, and insurance implications will be emphasized.

#### COLLISION REPAIR – STRUCTURAL ANALYSIS & DAMAGE REPAIR 1A

(10-12) CTEE404 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Introduction to Collision Repair; Welding

Course Description: *Structural Analysis and Damage Repair 1A* is designed to provide instruction in the different procedures for structural damage analysis and repair of vehicle structure. Students will be trained to determine the extent of damage, the methods, and order of repair. They will be introduced to the measuring and pulling of unibody and frame type vehicles and making the repairs in accordance with vehicle manufacturers' recommendations.

#### COLLISION REPAIR - STRUCTURAL ANALYSIS & DAMAGE REPAIR 1B

(10-12) CTEE405 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Introduction to Collision Repair; Welding, Structural Analysis & Damage Repair 1A

**Course Description:** *Structural Analysis and Damage Repair 1B* builds on the skills developed in 1A with emphasis on following a repair plan. In addition, this course will focus on body filling, metal finishing, welding and cutting procedures performed according to manufacturer's/industry specifications.

#### COLLISION REPAIR - NON-STRUCTURAL ANALYSIS & DAMAGE REPAIR 1A

(10-12) CTEE402 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Introduction to Collision Repair; Welding, Structural Analysis & Damage Repair 1A & 1B

**Course Description:** *Non-Structural Analysis and Damage Repair 1A* emphasizes reading damage reports and developing a repair plan; choosing from a variety of repair methods, tools, and materials to correctly repair metal and/or plastic materials; and panels in modern automobiles. It is designed to cover non-structural straightening techniques and proper tool selection and use in accordance with vehicle manufacturers' recommendations.

#### COLLISION REPAIR - NON-STRUCTURAL ANALYSIS & DAMAGE REPAIR 1B

(10-12) CTEE403 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Introduction to Collision Repair; Welding, Structural Analysis & Damage Repair 1A & 1B, Non-Structural Analysis & Damage Repair 1A

**Course Description:** *Non-Structural Analysis and Damage Repair 1B* builds on the skills developed in 1A with emphasis on following a repair plan. In addition, this course will focus on body filling, metal finishing, welding, and cutting procedures performed according to manufacturer/industry specifications.

#### PLASTICS & ADHESIVES 1A

(10-12) CTEE406 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Introduction to Collision Repair; Welding, Structural Analysis & Damage Repair 1A & 1B, Non-

Structural Analysis & Damage Repair 1A & 1B

**Course Description:** *Plastics and Adhesives 1A* introduces students to the identification of automotive plastic parts, reinforced fiberglass parts, and sheet molded compounds (SMC). They will study the selection of adhesives and develop an understanding of adhesive repair methods, tools, and materials.

#### PLASTICS & ADHESIVES 1B

(10-12) CTEE407 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Introduction to Collision Repair; Welding, Structural Analysis & Damage Repair 1A & 1B, Non-Structural Analysis & Damage Repair 1A & 1B, Plastics & Adhesives 1A

**Course Description**: *Plastics and Adhesives 1B* continues the study of automotive plastic parts identification, reinforced fiberglass parts, and sheet molded compounds (SMC). Students will study the selection of adhesives and develop an understanding of adhesive repair methods, tools, and materials.

#### **PAINTING & REFINISHING 1A**

(10-12) CTEE408 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Introduction to Collision Repair; Welding, Structural Analysis & Damage Repair 1A & 1B, Non-Structural Analysis & Damage Repair 1A & 1B, Plastics & Adhesives 1A & 1B

**Course Description**: Students in *Painting and Refinishing 1A* will explore different procedures for surface preparation. They will design a plan that includes the selection and application of appropriate paints and finishes while demonstrating an understanding of shop and occupational safety skills.

#### **PAINTING & REFINISHING 1B**

(10-12) CTEE409 Elective Length: 1 Semester = .5 Credit

Fees: \$20

Prerequisite: Introduction to Collision Repair; Welding, Structural Analysis & Damage Repair 1A & 1B, Non-Structural Analysis & Damage Repair 1A & 1B, Plastics & Adhesives 1A & 1B, Painting & Refinishing 1A

**Course Description:** *Painting and Refinishing 1B* is designed to provide instruction in the different procedures for applying appropriate paints and finishes. Students will inspect and identify types of finishes and surface conditions and develop a plan for refinishing using one paint system from start to finish in conformance with paint system manufacturers specifications and complying with established safety rules established by OSHA, NIOSH, EPA, and DER.



# Career/Technical Prep Education STUDENTS MAY RECEIVE UAF AND HHS CREDITS

#### **UAF Tanana Valley Campus Tech Prep Program**

The Tech Prep program is a partnership between the UAF Tanana Valley Campus and the Fairbanks North Star Borough School District allowing high school students to earn university credits toward a certificate and/or degree by completing career and technical education classes in their high school that have been approved for college credit by UAF/TVC. The classes available for credit vary from school to school, but in general, they are taken from the following areas: applied business; automotive; airframe and powerplant; human services; computer information office systems; allied health; drafting; emergency medical services; and welding.

#### Credits earned allow students to:

- Get a head start in a certificate and/or degree program or apprenticeship program.
- Transfer credits from UAF/TVC to another university or college.
- Apply technical skills for immediate entry-level employment after high school while also attending college.

#### **General Information**

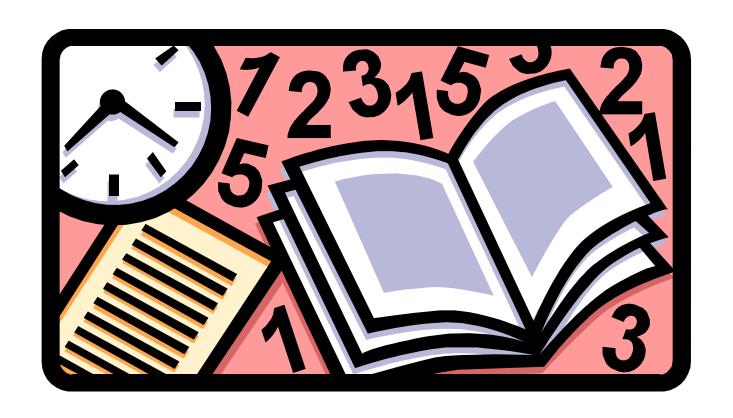
Students enrolled in a high school course that qualifies as a Tech Prep course will receive information about the Tech Prep program along with a registration form. Grades received in the high school course will be reflected on the student's UAF/TVC transcript. Students may request "credit after the fact" for up to three years after completing the course, provided the course was approved by UAF/TVC at the time of completion. There is no limit to the number of UAF/TVC credits a student may receive through Tech Prep. The cost of Tech Prep is \$25 per credit.

For more information contact your high school counselor;

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Amy Bristor, UAF Tanana Valley Campus Tech Prep Coordinator Phone: 455-2858

Email: <u>fnalb1@uaf.edu</u>
Website: <u>www.tvc.uaf.edu/techprep</u>



# James T. Hutchison High School

**Core Academic Courses** 

**School Year 2010 – 2011** 

#### James T. Hutchison High School Core Academic Course Offerings

#### **English (4 Credits)**

**English 9** 

English 10

English 11: Early American Literature S1
English 11: Modern American Literature S2

English 11: Journalism S2

**English 12: Early British Literature S1** 

**English 12: World Literature S2** 

English 12: Adv. Journalism S2

English 12: UAF English 111, Introduction to Academic Writing

#### Health (.5 Credits)

Health

#### PE (1.5 Credits)

Fundamentals of Physical Education

**Team Activities** 

Fitness / Team Activities

**Individual / Team Activities** 

#### Mathematics (3 Credits) (Recommend 4 years)

Algebra I

Geometry w/Trigonometry

Algebra II

Pre-Calculus

**Accounting 1A, Semester Class** 

**Basic Statistics, Semester Class** 

**Math in Health Care** 

Algebra for Technical Careers

**Mathematical Modeling** 

**UAF Calculus 200 S1** 

**UAF Calculus 201 S2** 

#### Science (3 Credits) (Recommend 4 years)

**Earth & Space Science** 

Biology

**Introduction to Natural Resources** 

**Human Anatomy & Physiology S1** 

**Introduction to Basic Pathophysiology S2** 

Chem Tech

Chemistry

**Physics** 

#### Social Studies (3 Credits) (3.5 Credits beginning with Class 2011)

**World History** 

**United States History** 

Alaska Studies, Semester Class

**American Government** 

**General Economics** 

#### **World Language**

Spanish I

Spanish II

Courses offered depending on Student Requests, School Funding, and/or Staffing

<sup>\*</sup>All classes year long unless indicated otherwise.

#### **ENGLISH**

#### **GRADUATION REQUIREMENTS: 4 Credits = Eight (8) Semesters**

**ENGLISH 9** 

(9) EN212/213

**Length: 2 Semesters/One Year = 1 Credit** 

**Prerequisite: None** 

**Course Description:** English 9 introduces the genres of literature and the writing process through a combination of composition, literature, and speech experiences. The course provides a variety of writing experiences, including on-demand and process writing, and essays in response to literature studied. Introduction to literary analysis, library and research skills, grammar, mechanics and usage, and vocabulary are also included. Students complete a short research paper or project second semester. This course fulfills two semesters of the English 9 requirement.

#### **ENGLISH 10**

(10) EN222/223

**Length: 2 Semesters/One Year = 1 Credit** 

Prerequisite: Successful completion of English 9

**Course Description:** This course is a continuation of *English 9* and uses literature to further develop reading, writing, speaking, and listening skills. Students will use reading strategies to expand their personal vocabulary, summarize, infer, compare/contrast main ideas, and use textual facts to support text analysis. Using the writing process and the six traits rubric, students will write for a variety of audiences, practice the steps in writing a research paper, and utilize a standard writing handbook. Students will also participate in class discussions, oral presentations, and group projects. This course fulfills two semesters of the *English 10* requirement.

#### **ENGLISH 11: EARLY AMERICAN LITERATURE**

(11) EN232

**Length:** 1 Semester = .5 Credit

Prerequisite: Third year standing and completion of English 10

**Course Description:** This integrated course combines a survey of early American and other related authors with composition. American prose, poetry, and drama are used as vehicles for examining American culture and improving writing skills. The course requires one formal literary analysis, as well as a variety of other writing experiences. This course fulfills the *English 11* requirement.

#### **ENGLISH 11: MODERN AMERICAN LITERATURE**

(11) EN234

**Length:** 1 Semester = .5 Credit

Prerequisite: Third year standing and completion of English 10

**Course Description:** This integrated course combines a survey of both early American and modern American authors with composition. American prose, poetry, and drama are used as vehicles for examining American culture and improving writing skills. The course requires one formal literary analysis, as well as a variety of other writing experiences. This course fulfills the *English 11* requirement.

#### **JOURNALISM - BEGINNING**

(10-12) EN281

**Length:** 1 **Semester = .5 Credit** 

Prerequisite: successful completion of *English 9* or equivalent

**Course Description**: This course serves as an introduction to newspaper writing, conventions, and technology. Students learn the basics of newspaper journalism including news gathering, research, interviewing, and the role of journalism in society. Students write various types of news stories and design layout pages.

NOT NCAA APPROVED

#### JOURNALISM - INTERMEDIATE

(10-12) EN282

**Grades: 10-12** 

**Length:** 1 **Semester = .5 Credit** 

Prerequisite: successful completion of Beginning Journalism

**Course Description:** This course is a continuation of *Beginning Journalism*, with a focus on newspaper writing, conventions, and technology. Students write stories for publication in the school newspaper, as well as complete other necessary production requirements including: photography, page layout, editing, column writing, and other artistic elements. Students develop and conduct interviews and complete other reporting tasks independently, while working with other students to coordinate and produce the school newspaper.

NOT NCAA APPROVED

#### JOURNALISM A & B – ADVANCED

(10-12) EN283/284

**Grades: 10-12** 

**Length:** 1 **Semester\*** = .5 **Credit** 

Prerequisite: successful completion of Intermediate Journalism or teacher recommendation

**Course Description:** These courses are designed to produce a school newspaper. News writing, organization, layout, and leadership skills are emphasized.

\*Advanced Journalism B may be repeated for credit with the approval of the instructor.

**NOT NCAA APPROVED** 

#### **ENGLISH 12: EARLY BRITISH LITERATURE**

(12) EN243

**Length:** 1 Semester = .5 Credit

Prerequisite: Fourth year standing and completion of English 11 requirements

**Course Description**: This integrated course combines a survey of early British and other related authors with composition. British prose, poetry, and drama are used as vehicles for examining culture and improving writing skills. The course requires one formal literary analysis, as well as a variety of other writing experiences. This course fulfills the *English 12* requirement.

#### **ENGLISH 12: WORLD LITERATURE**

(12) EN249

**Length:** 1 **Semester = .5 Credit** 

Prerequisite: Fourth year standing and completion of *English 11* requirements

**Course Description:** This integrated course combines a survey of international authors with composition. Prose, poetry, and drama are used as vehicles for examining culture and important authors outside of our national and cultural boundaries, as well as improving writing skills. The course requires one formal literary analysis, as well as a variety of other writing experiences. This course fulfills the *English 12* requirement.



#### **UAF INTRODUCTION TO ACADEMIC WRITING**

(12) **UAF/ENG F111X** 

Length: 1 Semester = .5 High School Credit & 3 College Credits

**Prerequisite: Teacher recommendation** 

**Tuition required** 

**Course Description:** Written inquiry and critical reading. Introduces writing as a way of developing, exploring and testing ideas. Concentrates on research methods and techniques. Students must apply for outside credit to receive high school credit.

#### **HEALTH**

#### **GRADUATION REQUIREMENT: .5 Health Credit**

**HEALTH** 

(9-12) HL001

**Length:** 1 Semester = .5 Credits

**Prerequisite: None** 

**Fulfills graduation requirement** 

**Course Description:** This course focuses on the acquisition of accurate health information and the development of healthy attitudes and behavior patterns. Decision-making and goal-setting skills are presented at developmentally appropriate levels. Students will learn content and practice skills through the study of the nine strands of the Alaska Performance Standards.

#### PHYSICAL EDUCATION

#### **GRADUATION REQUIREMENTS: 1.5 Physical Education credits from the following areas:**

One-quarter (.25) credit for the physical education requirement may be waived for each full season of participation in an approved interscholastic or intramural athletic competition. The total credit waived shall not exceed one (1) full credit. A waiver of credit does not affect the overall minimum graduation requirement of 22 credits (School Board Policy 984). Elective credit must be earned to replace the physical education requirement that is waived.

#### FUNDAMENTALS OF PHYSICAL EDUCATION

(9-12) PE050

**Length:** 1 Semester = .50 Credit

Prerequisite: None

Requirements: Instruction of a variety of physical fitness activities from the Fitness category AND multiple

activities from two or more of the following categories: Individual, Team, and Outdoor Pursuits

**Course Description:** This course is designed to be an introduction to high school physical education. It is strongly recommended that students take this course their 9th grade year because it provides a comprehensive overview of physical education and is a prerequisite for many other physical education courses. Competency is developed in a wide range of activities and students are prepared to make informed decisions about future recreation and fitness pursuits.

#### **TEAM ACTIVITIES**

(9-12) PE053

**Length: 1 Semester = .50 Credit** 

Prerequisite: None

Requirements: Instruction of a minimum of four (4) Team activities

**Course Description:** This course is designed to develop student competence in team activities. Emphasis is placed on skill development, safety, rules, strategies, working as a team, appropriate use and care of equipment, recreational enjoyment, conditioning, and application of fitness concepts.

#### FITNESS / TEAM

(9-12) **PE056** 

**Length:** 1 Semester = .50 Credit

Prerequisite: None

Requirements: Instruction of a minimum of two (2) Fitness and two (2) Team activities

**Course Description:** This course is designed to provide students the experience of integrating physical fitness activities toward a lifetime of involvement in physical pursuits. From the categories of Fitness and Team, student will participate in activities which involve cardio respiratory and muscular endurance, strength, flexibility, and body composition. Emphasis will be on team activities, sportsmanship, and teamwork.

#### INDIVIDUAL / TEAM

(9-12) PE058

**Length:** 1 Semester = .50 Credit

Prerequisite: None

Requirements: Instruction of a minimum of two (2) Individual and two (2) Team activities

**Course Description**: This course is designed to provide students the experience of integrating physical fitness activities toward a lifetime of involvement in physical pursuits. From the categories of Fitness and Team, student will participate in activities which involve cardio respiratory and muscular endurance, strength, flexibility, and body composition. Emphasis will be on team activities, sportsmanship, and teamwork.

#### **MATHEMATICS**

#### **GRADUATION REQUIREMENTS: 3 Credits**

Students must successfully complete Algebra I.

It is highly recommended that a student take *Geometry w/Trigonometry* in order to have the "opportunity to learn" the geometry skills required to pass the High School Qualifying Exam.

#### **ALGEBRA I**

(9) MA201/202

**Length: 2 Semesters/1 Year = 1 Credit** 

**Prerequisite: None** 

**Course Description**: *Algebra I* thoroughly covers linear functions, linear inequalities, concept of functions, real numbers, manipulating algebraic symbols, and solving real world problems using algebraic expressions and equations. The topics of probability, statistics, trigonometry, quadratic equations, factoring, graphing quadratic functions, and the coordinate grid system will be incorporated. Technology is incorporated as appropriate during the course.

#### GEOMETRY W/TRIGONOMETRY

(9-12) MA223/224

**Length: 2 Semesters/1 Year = 1 Credit** 

Prerequisite: Algebra I

Course Description: This challenging course includes the study of properties of geometric figures, trigonometric relationships, and reasoning to justify conclusions. Methods of justification will include paragraph proofs, flow charts, two-column proofs, coordinate proofs, and verbal paragraph proofs. A gradual development of formal proof is encouraged. Inductive and intuitive approaches to proof as well as deductive axiomatic methods should be used. Calculators, computers, graphing utilities, dynamic geometry software, and other appropriated technology will be used as tools to assist in teaching and learning. Any technology that will enhance student learning should be used.

#### **ALGEBRA II**

(9-12) MA204/205

**Length: 2 Semesters/1 Year = 1 Credit** 

Prerequisite: Algebra I

**Course Description:** Algebra II covers solving and graphing second-degree equations, complex numbers, matrices, determinants, synthetic division or substitution, and polynomial, exponential, logarithmic, and trigonometric functions. Students will incorporate the application of data analysis and statistics during their study of the aforementioned functions. Technology is used to further explore these topics and further conceptual understanding.

#### **PRE-CALCULUS**

(10-12) MA240/241

**Length: 2 Semesters/1 Year = 1 Credit** 

Prerequisite: Geometry AND Algebra II or teacher recommendation

**Course Description:** *Pre-Calculus* is a survey course designed to pull together and extend the students' mathematical knowledge base. It includes an in-depth coverage of the concepts of functions, including linear, polynomial, exponential, logarithmic, and trigonometric functions. This course also covers analytic geometry, sequences, series, and limits, and is designed as a preparation for *Calculus*.

#### **Electives:**

#### **ACCOUNTING 1A**

(10-12) CTEJ109 Elective or .5 Math Credit

**Length:** 1 Semester = .5 Credit

**Cross-credited with Career Technical Education** 

Prerequisite: None

#### Tech Prep Core Course

**Course Description:** Students are introduced to accounting concepts, principles, and procedures. This course provides students with the fundamental skills needed to understand the basic accounting cycle for a service business organized as a sole proprietorship and a merchandising business organized as a partnership. Students learn through manual and computerized applications.

#### **MATH IN HEALTH CARE**

(9-12) **CTEK112** 

**Length:** 1 Semester = .5 Credit

Prerequisite: None

#### Completion of Math In Health Care = 3 College Tech Prep Credits

**Course Description:** Practical application of mathematics in healthcare, including arithmetic review, decimal fractions, percent, interest, ratio proportion, metric measurement, mathematical applications in medical measurement instruments, graphs, charts, medications, accounting, and office management.

NOT NCAA APPROVED

#### ALGEBRA FOR TECHNICAL CAREERS

(11-12) MA209

**Length:** 1 Semester = .5 Credit

Prerequisite: Geometry or Geometry with Trigonometry

**Course Description:** Algebra for Technical Careers emphasizes the advanced and applied algebraic topics needed for success in industry based occupations. Manipulatives, calculators, spreadsheets, application software, and specialized technologies will be used as students work with problems in an application-centered environment.

#### MATHEMATICAL MODELING

(11-12) MA237

**Length:** 1 Semester = .5 Credit

Prerequisite: Algebra I or teacher recommendation

**Course Description:** This course will focus on an application of statistics, probability, matrices, and dynamic systems to construct mathematical models. *Mathematical Modeling* will explore the methods of using mathematical language to describe the behavior of a system. Models will be used to analyze situations in biology, economics, business, engineering, politics, and the humanities. The approach in this course is to use numerical and graphical analysis to solve problems. Extensive use of computers and calculators will occur.

#### **BASIC STATISTICS**

(10-11) MA234

Length: 1 Semester = .5 Credit Prerequisite: Geometry or Algebra II

**Course Description:** The student will understand how statistics are used in the media, sports, education, business, and the political arena to make informed decisions. Major concepts include: exploring data through sampling distributions, frequency distributions, descriptive statistics, elementary probability, population parameters, correlation, simple linear regression, and statistical references. Students will design a study using local data. This is an applications oriented course. Use of computers and graphing calculators will occur.



#### **UAF Calculus I**

(11-12) UAF/ MATH F200X

Length: 1 Semester = .5 High School Credit & 4 College Credits

Prerequisite: MATH F107X and MATH F108 or placement for MATH F200X

**Tuition required** 

**Course Description**: Limits, including those with indeterminate form, continuity, tangents, derivatives of polynomial, exponential, logarithmic and trigonometric functions, including product, quotient and chain rules, and the mean value theorem. Applications of derivatives including graphing functions and rates of change. Antiderivatives, Newton's method, definite and indefinite integrals, methods for substitution in integrals and the fundamental theorem of calculus. Applications of integrals include areas, distances, and volumes. Note: No credit may be earned for more than one of *MATH F200X*, *MATH F262X or MATH F272X*. Also available via Independent Learning. (4+1) Students must apply for outside credit to receive high school credit.

#### **UAF Calculus II**

(11-12) UAF/ MATH F201X

Length: 1 Semester = .5 High School Credit & 4 College Credits Prerequisite: *MATH F200X* or placement in *MATH F201X* 

**Tuition required** 

**Course Description:** Techniques and applications of integration. Integration of trigonometric functions, volumes including those using slicing, arc-length, integration by parts, trigonometric substitutions, partial fractions, hyperbolic functions, and improper integrals. Numeric integration including Simpson's rule, first order differential equations with applications to population dynamics and rates of decay, sequences, series, tests for convergence including comparison and alternating series tests, conditional convergence, power series, Taylor series, polar coordinates including tangent lines and areas, and conic sections. Also available via Independent Learning. (4+0) Students must apply for outside credit to receive high school credit.



#### **SCIENCE**

#### **GRADUATION REQUIREMENTS: 3 Science Credits**

1 Credit Biological Science (2 Semesters) 1 Credit Physical Science (2 Semesters) 1 Science Elective Credit (2 Semesters)

#### EARTH AND SPACE SCIENCE

(9-10) SC060/061

**Length: 2 Semesters = 1 Credit** 

**Prerequisite: None** 

**Course Description:** This one-year course is designed to provide freshmen with the foundation for all future science classes. *Earth and Space Science* teaches fundamental science techniques and concepts through an exploration of the world around us. Physical science concepts such as density, gravity, and heat transfer are introduced through an in-depth study of climate change, astronomy, oceanography and geology. This course fulfills the requirements of a physical science course.

#### **BIOLOGY**

(9-12) SC003/004 Length: 2 Semesters = 1 Credit

Prerequisite: Earth and Space Science, or teacher\* recommendation

(May be middle school teacher recommendation)

Course Description: *Biology* is a rigorous one-year course for students with strong academic skills. The academic focus will include practicing independent acquisition of information from written sources and formally written scientific reports. Scientific skills will include practice in developing testable questions and hypotheses, development of independent experiments, data collection and analysis skills. The first semester will begin with the study of cells, cell organelles, protein synthesis and the study of heredity. Second semester will include the evolution, characteristics of multicellular organisms-with attention to organs and organ systems, and the diversity of organisms and ecology.

#### INTRODUCTION TO NATURAL RESOURCES

(10-12) CTEB101/102 Elective

**Length: 2 Semesters = 1 Credit** 

Prerequisite: None

Course Description: This course focuses on the natural resource industries vital to the State of Alaska including fishing, forestry, mining, agriculture, oil and gas, and outdoor recreation. Units to be covered include agriscience, resources management, leadership development, animal science, plant science, outdoor recreation, and oil and gas management. Students will develop supervised hands-on projects related to industrial interest areas utilizing technologies and science based applications. Students will have class projects in facilities to gain a better understanding of plant production, mining technologies, animal science applications, and natural resource management technologies. Students will also learn basic leadership employability skills through FFA based activities.

#### **HUMAN ANATOMY AND PHYSIOLOGY**

(11-12) SC005

**Length:** 1 Semester = .5 Credit

Prerequisite: *Biology* and teacher recommendation \*Cross-credited with Career Technical Education

Course Description: In this one semester advanced course students will learn about the major organ systems of the human body and how they work together to sustain life and maintain health. Academic skills will focus on independent reading and analysis. Content focus will be on the relationship between the structure (anatomy) of organs and organ systems and the functions (physiology) of those systems. Students will have the opportunity to study how healthy life choices can help to enhance the functioning of those systems. They will also be introduced to the many careers available in the modern health care system.

#### INTRODUCTION TO BASIC PATHOPHYSIOLOGY

(10-12) SC043

**Length:** 1 **Semester = .5 Credit** 

Prerequisite: Human Anatomy and Physiology

**Course Description:** This course will emphasize the study of viruses, bacteria, and other microorganisms and the diseases caused by them. *Pathophysiology* will review basic cellular function, tissue types, and body systems to compare with the body's response to injury or illness. The lab portion of this course will focus on systematic identification of bacteria. This course is highly recommended for students interested in pursuing a career in health science.

#### **CHEM TECH**

(10-12) SC453/454

**Length: 2 Semesters = 1 Credit (Fulfills physical science requirements)** 

Prerequisite: Earth and Space Science, Biology or teacher recommendation and Algebra I

\*Cross credited with Career Technical Education

Course Description: Chem Tech is a one-year course that integrates chemistry and technology with applications in the real world. These concepts are introduced in the context of situations encountered in students' lives. Students learn basic chemistry concepts through practical applications. Biological concepts are integrated as students explore natural and synthetic resources. The class is designed to use current topics in chemistry to develop students' understanding of chemical processes, problem solving skills, technical expertise, and math literacy. Laboratory experiences constitute a major portion of the course. Students planning a science-based career should take Chemistry and Chemistry II or AP Chemistry.

#### **CHEMISTRY**

(10-12) SC022/023

**Length: 2 Semesters = 1 Credit (Fulfills physical science requirement)** 

Prerequisite: Algebra I and Biology, or Chem Tech

**Course Description:** *Chemistry* is a one-year introductory general chemistry course which builds a foundation for college-level chemistry, physics, and biology courses. Students learn about chemical reactions and the structure of matter in order to explain how and why substances react the way they do. Laboratory work and laboratory reporting are an integral part of the course, helping students develop an understanding of the concepts as well as the process of science. *Chemistry* is to be distinguished from *Chem Tech* by the higher level of mathematical preparation a student needs to succeed. This is a lab-based course.

#### **PHYSICS**

(10-12) SC031/032

**Length: 2 Semester = 1 Credit** (Fulfils physical science requirement)

Prerequisite: Algebra II and Geometry or teacher permission

Course Description: This year-long class is an introductory general physics course with an emphasis on mathematics that will build a strong foundation for college-level courses in physics and other sciences. Mathematics will be used to help students understand and communicate physics concepts. Laboratory work is an integral part of the inquiry-based learning process, helping students to develop an understanding of the concepts as well as the process of science. The first semester is an in-depth exploration of mechanics (motion, forces, energy, and momentum). The second semester includes an in-depth exploration of electricity and magnetism, and waves (including sound and optics). Additional topics may include heat and thermodynamics, atomic and nuclear physics, particle physics, and special relativity.

#### **SOCIAL STUDIES**

#### **GRADUATION REQUIREMENTS: 3 Credits for Class of 2009 and 2010**

1 Credit American Studies (2 semesters)

1 Credit World Studies (2 semesters)

.5 Credit Alaska Studies

.5 Credit Contemporary Government Studies

.5 Credit Contemporary Economics Studies

NOTE:

Class of 2009 and 2010: Alaska Studies may take the place of one semester of U.S. History.

Class of 2011 and later: 3.5 Social Studies graduation requirement:

1 Credit American Studies (2 semesters)

1 Credit World Studies (2 semesters)

.5 Credit Alaska Studies

.5 Credit Contemporary Government Studies

.5 Credit Contemporary Economics Studies

#### **World Studies Course Offerings:**

#### **WORLD HISTORY 1**

(10) SS001

**Length:** 1 Semester = .5 Credit

Prerequisite: None

**Course Description:** The course will emphasize the use of primary sources, critical thinking about cause and effect, and analysis of historical interpretation. Focus will be on global developments from the creation of early societies in Mesopotamia, Egypt, and the Indus Valley to empires of the Classical Age and from the emergence of the first global age to the rise of absolutism and the revolutionary response of the early 19th century.

#### **WORLD HISTORY 2**

(10) SS002

**Length:** 1 Semester = .5 Credit

Prerequisite: None

**Course Description:** This course will emphasize the use of primary sources, critical thinking about cause and effect, and analysis of historical interpretation. Focus will be on the global impacts of imperialism and industrialization in the 19th century and the development of a true global society in the 21st century.



#### **American Studies Course Offerings:**

#### **UNITED STATES HISTORY 1**

(11) SS010

**Length:** 1 **Semester = .5 Credit** 

Prerequisite: None

Course Description: This course focuses on the people, cultures, issues and events that shaped the founding and early development of America. Students explore the way in which a nation was created out of a diverse set of influences and challenges in the 17th and 18th centuries and how that nation evolved, was nearly destroyed, and was re-established in the 19th century. This course emphasizes the democratic principles present at the founding of the United States and the civic responsibility and involvement needed to make those principles a reality for all.

#### **UNITED STATES HISTORY 2**

(11) SS011

**Length:** 1 Semester = .5 Credit

Prerequisite: None

**Course Description**: This course builds on the themes and content of *United States History 1*, exploring the people, cultures, issues and events that shaped the evolution of America in the 20th century. Students explore the way in which a reunited but still divided country developed from its isolationist origins to become a global superpower at the onset of the 21st century. This course emphasizes the role of democratic principles and the civic responsibility and involvement that have so dramatically changed the United States in the last century.



#### **Alaska Studies Course Offering:**

#### **ALASKA STUDIES**

(9-12) SS029

**Length:** 1 Semester = .5 Credit

Prerequisite: None

NOTE: Alaska Studies is a graduation requirement beginning with the Class of 2009.

**Course Description:** In this survey course students will become familiar with the historic, economic, political, geographic, and cultural influences on Alaska and the ways these forces have shaped modern day Alaskan society. This course fulfills the State Alaska history graduation requirement.



#### **Contemporary Government Studies Course Offering:**

#### AMERICAN GOVERNMENT

(12) SS023

**Length:** 1 **Semester = .5 credit** 

**Prerequisite: None** 

**Course Description**: In *American Government*, students become knowledgeable about the political structure and function of the government, U.S. political process, issues confronting Americans, and the responsibilities of being active participants in a democratic republic.

#### **Contemporary Economics Studies Course Offering:**

#### **GENERAL ECONOMICS**

(12) SS026

**Length:** 1 **Semester = .5 credit** 

Prerequisite: None

**Course Description:** *General Economics* analyzes how individuals, communities, and nations make rational choices in a world defined by scarcity. The primary goal of the course is to help students become effective citizens as they develop the skills needed to be productive workers, informed consumers, and prudent investors. The course incorporates current events and historical developments, many of which are included in other social studies courses, analyzing them with economic concepts, theories, and models in order to view them from a different perspective and investigate them in greater depth.



#### **Electives:**

#### **PSYCHOLOGY**

(10-12) SS041

**Length:** 1 **Semester = .5** credit

Prerequisite: None

**Course Description:** *Psychology* introduces students to the systematic and scientific study of the behavior and mental processes of human beings and animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the methods psychologists use to explore the processes involved in normal and abnormal perceptions, thoughts, feelings, and actions.

#### **AMERICAN LEGAL SYSTEMS**

(10-12) SS037

**Length:** 1 **Semester = .5 credit** 

**Prerequisite: None** 

**Course Description:** *American Legal Systems* examines the legal system that is part of the American democratic process. It is designed to answer such questions as:

- What is law?
- What is its social function?
- How does law work?

Statutes, common law principles, court decisions, and regulatory and constitutional laws dealing with public issues such as education, pollution, highway safety, poverty, civil rights, and problems directly concerning youth are covered. The course provides practical information and problem-solving opportunities that develop the knowledge and skills needed to survive in a law-saturated society.



#### **WORLD LANGUAGE**

The World Language Curriculum is currently being revised and will be up for adoption by the School Board in the spring of 2010. More information about the draft curriculum is available on the district's web site: <a href="http://www.k12northstar.org/curriculum">http://www.k12northstar.org/curriculum</a>

#### **SPANISH I**

(9-12) FL 055/056 Length: 2 semesters = 1 credit

Prerequisite: None

**Course Description:** Students in *Spanish I* should be Novice Mid to Novice High (according to the National Oral Proficiency Interview descriptions) by the end of the school year. Students focus on the present tense in first year. English will still be used, although the teacher will provide students opportunities and support to help them use Spanish. Students should learn about a variety of Spanish-speaking countries every year, including Spanish speakers in the United States, Spain, Mexico, South American countries, Central American countries, and Caribbean countries/Puerto Rico.

#### **SPANISH II**

(9-12) FL 058/059 Length: 2 semesters = 1 credit

Prerequisite: Spanish I

**Course Description:** All students in *Spanish II* should be at least Novice High by the end of the school year. Students should learn about the variety of Spanish-speaking countries, including Spain, Mexico, South America, Central America, the Caribbean, and Spanish speakers in the United States.

















# ADDITIONAL INFORMATION

## **ACT**

#### **School Year 2010-2011**

Test Dates
<b>September 11, 2010</b>
October 23, 2010
December 11, 2010
February 12, 2011
April 9, 2011
June 11, 2011

For more information and online ACT registration: www.act.org

### **SAT**

#### **School Year 2010-2011**

Test Dates	Test
October 9, 2010	SAT & Subject Tests
November 6, 2010	SAT & Subject Tests
<b>December 4, 2010</b>	SAT & Subject Tests
January 22, 2011	SAT & Subject Tests
March 12, 2011	SAT only
May 7, 2011	SAT & Subject Tests
June 4, 2011	SAT & Subject Tests

For more information and online SAT registration: www.collegeboard.com

School Code Number: Enter this number on your Mail Registration Form or on your On-Line Registration Form.

Hutchison High School
3750 Geist Road
Fairbanks, Alaska 99709
(907) 479-2261

School Code Number: Enter this number on your Mail Registration Form or on your On-Line Registration Form.

#### Administrative Regulation 984.3 - Outside Credit

The purpose is to establish standards and procedures for high school students taking high school or university level courses for credit outside the Fairbanks North Star Borough School District.

#### Any student requesting outside credit must meet the following criteria:

- Approval from the Superintendent must be obtained prior to registering for the class (see Appendix A Outside Credit Request Form).
- The course must meet the following criteria:
  - The course syllabus will include: topics covered; materials being used; assignments required; grading policy; and instructor's credentials.
  - The course may have an on-the-job-training component, but it is not to be the main focus of the course.
- The course must be completed during the school year in which it is begun. Summer courses need to be completed prior to the start of school.
- It is the responsibility of the student to get the appropriate paperwork, grade, etc., to his/her school's counseling department.
- No more than one (1) outside credit will be allowed per semester or summer, and the maximum credit allowable, via approved outside sources, is eight (8).

#### **Eligibility for Student Activities**

All outside credit will only be counted towards eligibility when completed and recorded on the student's transcript. The student is advised to see his or her counselor for information and details.

#### **High School Grades - Course Retakes**

Outside credit courses are not considered course retakes for purposes of computing GPA and do not replace previously earned grades. (Refer to AR 981.1 #5)

#### **College Credit Conversion to High School Credit:**

The determination of academic college courses credit versus high school credit is as follows:

University Credit Hour		High School Level Credit
1.00	=	.10
2.00	=	.25
3.00	=	<b>.</b> 50
4.00	=	<b>.</b> 65
<b>5.</b> 00	=	.80
<b>6.</b> 00	=	1.00

University of Alaska Fairbanks courses pertaining to Music and Vocational Education may be eligible for more credit than reflected above.

Approved: October 20, 1995 Revised: September 24, 1997 Revised: May 5, 2004 Revised: July 29, 2008

Revised: August 31, 2009

# OUTSIDE CREDIT REQUEST FORM Please review Administrative Regulation 984.3 on the back side of form

INSTRUCTIONS: Students wishing to take courses outside of their regular high school for high school credit may do so with **PRIOR** administrative approval. The student must complete this form, with assistance from the school counselor/principal, as follows:

- Obtain all school-level and parent signatures
- Attach a detailed course syllabus (including topics covered, instructional goals of course, materials being used, assignments required, grading policy, criteria for successful completion, instructional time requirements, and instructor's credentials)
- Submit this form (through your school counseling office) to the Fairbanks B.E.S.T Department at the School District Administrative Center. The request must be reviewed and signed by the Executive Director of Alternative Instruction and Accountability to indicate approval **BEFORE** the student may register for the outside credit course.

		Date of Initial	Request		
			- Indiana		
Student Name		Student ID #	Phone #	:	
Current High School			Standing (check one)	1444 - [	1.10.1
		[ ] 9th	[] 10th [	] 11th [	] 12th
	Outside Credit	is Requested for:			
Name of Course					
Institution Offering Course					
Course Meeting Dates and Times					
[ ]Fall [ ]Spring [ ]Summer	Year: 20				
Number of high school credits requested for this course		Number of outside calready received	redits		
The type of credit requested for this	s course is:	[ ]Required	[ ]Elective	(check one)	ı
If for graduation requirement, w	hich requirement?				
student's transcript. The stud  High School Grades - Cour do not replace previously ea		ounselor for information ses are not considered c	n and details.		
Recommendations (signatu	res indicate approval recom	nended)			
Parent/ Guardian					
	Signa	ature	Da	te	
School Counselor					
•	Signa	nture	Da	te	
School Principal					
benoof I interput	Signa	nture	Da	te	
APPROVAL  Executive Director of Alternative Instruction and Accountability				YES	NO
	Signature		Date	_	
	Revis	ed August 31, 2009			

# Application to Waive 1/4-Credit of the Physical Education Graduation Requirement

Students may have 1/4-credit of the physical education requirement waived for each full season of participation in approved interscholastic or intramural athletic competition. The total credit waived shall not exceed one-full credit. Elective credit must be earned to replace the physical education requirement that is waived. A waiver of credit under this section does not affect the overall minimum requirements of 22.5\* credits. (\*22 credits for the class of 2010)

**Directions for the Student:** Please provide the information requested in Part I of this form (including all signatures) and return the form to your counselor. Information will be verified and you will receive an approved copy of the waiver. If you have any questions, please see your counselor.

Part I				
Student Name		Grade	School	
1: 4 ( )	·			
List of Approved Interschola		I Athletic Activ		
□ Badminton	□ Football		□ Swimming	
□ Baseball	□ Gymnastics		<ul><li>Swing Dance</li></ul>	
□ Basketball	☐ Hockey		□ Tennis	
□ Cheerleading	☐ Intramural G	Solf	<ul><li>Track and Field</li></ul>	
□ Cross-country Running	□ Rifle Team		□ Volleyball	
□ Cross-country Skiing	□ Soccer		☐ Weight Lifting	
□ Fencing	□ Softball		□ Wrestling	
Dates of Participation:	from		to	
0'				
Signatures:				
Student Date	Parent	Date	Sponsor/ Coach	Date
Part II: Verification of Par	ticipation			
Approval indicated by the fo	llowing signature	es:		
On the state of the state of			Data	
Counselor's Signature			Date	
Signature of Principal/ Designature	nnaa		Date	
Oignature of Filliopal Design	griee		Daic	Revised 6-



# NCAA FRESHMAN-ELIGIBILITY STANDARDS Eligibility QUICK REFERENCE SHEET

#### **KNOW THE RULES:**

#### **Core Courses**

- NCAA Division I requires 16 core courses as of August 1, 2008. This rule applies to any student first
  entering any Division I college or university on or after August 1, 2008. See the chart below for the breakdown
  of this 16 core-course requirement.
- NCAA Division II requires 14 core courses. See the breakdown of core-course requirements below. Please note, Division II will require 16 core courses beginning August 1, 2013.

#### **Test Scores**

- Division I has a sliding scale for test score and grade-point average. The sliding scale for those requirements
  is shown on page two of this sheet.
- Division II has a minimum SAT score requirement of 820 or an ACT sum score of 68.
- The SAT score used for NCAA purposes includes <u>only</u> the critical reading and math sections. <u>The writing</u> section of the SAT is not used.
- The ACT score used for NCAA purposes is a <u>sum</u> of the four sections on the ACT: English, mathematics, reading and science.
- All SAT and ACT scores must be reported directly to the NCAA Eligibility Center by the testing agency.
   Test scores that appear on transcripts will not be used. When registering for the SAT or ACT, use the Eligibility Center code of 9999 to make sure the score is reported to the Eligibility Center.

#### **Grade-Point Average**

- Only core courses are used in the calculation of the grade-point average.
- Be sure to look at your high school's list of NCAA-approved core courses on the Eligibility Center's Web site to
  make certain that courses being taken have been approved as core courses. The Web site is
  www.ncaaclearinghouse.net.
- Division I grade-point-average requirements are listed on page two of this sheet.
- The Division II grade-point-average requirement is a minimum of 2.000.

#### DIVISION I 16 Core-Course Rule

#### 16 Core Courses:

- 4 years of English.
- 3 years of mathematics (Algebra I or higher).
- 2 years of natural/physical science (1 year of lab if offered by high school).
- year of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 4 years of additional courses (from any area above, foreign language or nondoctrinal religion/philosophy).

#### DIVISION II 14 Core-Course Rule

#### 14 Core Courses:

- 3 years of English.
- 2 years of mathematics (Algebra I or higher).
- years of natural/physical science (1 year of lab if offered by high school).
- 2 years of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 3 years of additional courses (from any area above, foreign language or nondoctrinal religion/philosophy).

PLEASE NOTE: Beginning August 1, 2013, students planning to attend an NCAA Division II institution will be required to complete 16 core courses.

#### OTHER IMPORTANT INFORMATION

- Division II has no sliding scale. The minimum core grade-point average is 2.000. The minimum SAT score is 820 (verbal and math sections only) and the minimum ACT sum score is 68.
- 14 core courses are currently required for Division II. However, beginning 2013, students will be required to complete 16 core courses.
- 16 core courses are required for Division I.
- The SAT combined score is based on the verbal and math sections only. The writing section will not be used.
- SAT and ACT scores must be reported directly to the Eligibility Center from the testing agency. Scores on transcripts will not be used.
- Students enrolling at an NCAA Division I or II institution for the first time need to also complete the amateurism questionnaire through the Eligibility Center Web site. Students need to request final amateurism certification prior to enrollment.

For more information regarding the rules, please go to <a href="www.ncaa.org">www.ncaa.org</a>. Click on "Academics and Athletes" then "Eligibility and Recruiting." Or visit the Eligibility Center Web site at <a href="www.ncaaclearinghouse.net">www.ncaaclearinghouse.net</a>.

Please call the NCAA Eligibility Center if you have questions:

Toll-free number: 877/262-1492.

#### NCAA DIVISION I SLIDING SCALE CORE GRADE-POINT AVERAGE/ TEST-SCORE

New Core GPA / Test Score Index

Core GPA SAT ACT		
JOIE GFA	Verbal and Math ONLY	ACI
3.550 & above	AS CONCAS PROPERTY OF THE CONTRACT OF THE CONT	37
3.525	410	38
3.500	420	39
3.475	430	40
3.450	440	41
3.425	450	41
3.400	460	42
3.375	470	42
3.350	480	43
3.325	490	44
3.300	500	44
3.275	510	45
3.250	520	46
3.225	530	46
3.200	540	47
3.175	550	47
3.150	560	48
3.125	570	49
3.100	580	49
3.075	590	50
3.050	600	50
3.025	610	51
3.000	620	52
2.975	630	52
2.950	640	53
2.925	650	53
2.900	660	54
2.875	670	55
2.850	680	56
2.825	690	56
2.800	700	57
2.775	710	58
2.750	720	59
2.725	730	59
2.700	730	60
2.675	740-750	61
2.650	760	62
2.625	770	63
2.600	780	64
The state of the s	1000000	
2.575 2.550	790	65 66
	800	
2.525	810	67
2.500	820	68
2.475	830	69
2.450	840-850	70
2.425	860	70
2.400	860	71
2.375	870	72
2.350	880	73
2.325	890	74
2.300	900	75
2.275	910	76
2.250	920	77
2.225	930	78
2.200	940	79
2.175	950	80
2.150	960	80
2.125	960	81
2.100	970	82
2.075	980	83
2.050	990	84
2.025	1000	85
2.000	1010	86

NCAA Eligibility Center 05/07/08 LK:cr

## 2010 - 2011 Calendar

#### July 2010 August 2010 September 2010 October 2010 SMTWTFS F F SMTWTF M T W Т S SMTWT S S 2 3 2 2 3 1 3 4 2 9 9 10 8 10 11 (5) 5 (6) 3 8 15 🕅 🕅 🔞 19 20 21 12 13 14 15 16 (17) 18 10 11 12 13 14 15 16 12 13 15 16 17 23 18 19 20 21 22 23 24 22 23 24 25 26 27 28 19 20 21 22 23 24 25 17 18 19 20 25 26 27 28 29 30 31 29 30 31 26 27 28 29 30 25 26 27 November 2010 December 2010 January 2011 February 2011 MTWT S SMTWT S SMTWTF w T M T F S 2 4 5 3 3 2 3 (4) 5 11 (12) 13 9 10 7 8 9 10 **(**3) 4 5 8 8 9 10 11 12 14 2 4 2 6 10 11 12 13 (14) 15 14 15 16 17 18 19 20 9 13 13 1,4 1,5 16 17 18 19 16 (17) 18 19 20 21 22 22 23 24 (25)(26) 27 Ž2 Ž3 (24) 25 21 20 /21\ 23 24 25 26 23 24 25 26 27 28 29 28 29 30 26 27 28 29 30 (31) 27 28 30 31 March 2011 April 2011 May 2011 June 2011 M T W T F S W T F S SMT W T F SMT WTF M Т S 2 3 3 4 5 6 7 2 3 10 11 12 13 14 9 10 11 12 9 8 9 6 8 8 5 6 7 8 10 11 3 20/21 13 14 15 16 17 12 13 14 15 16 17 18 11 12 13 14 15 17 18 19 20 21 (22) 23 21 22 23 24 22 23 24 25 26 19 20 21 22 23 24 25 29 (30) 31 26 27 28 29 30 27 28 29 30 31 24 25 26 27 28 29 30



11-13 Professional Dev. Days

16-17 Teacher Work Days

18 First Day for Students

#### SEPTEMBER 2010

6 Labor Day Holiday 17 Early Dismissal-Students

#### OCTOBER 2010

Professional Dev. Day
 HSGQE Retakes

End of Quarter

28-29 Parent-Teacher Conf.

#### NOVEMBER 2010

12 Early Dismissal-Students Thanksgiving Holiday

#### DECEMBER 2010

Last 3 days-early outs 15-17

End of Semester

Winter Break Starts 20

31 Last day of Winter Break

#### JANUARY 2011

Teacher Work Day 3

Early Dismissal-Students Martin Luther King Jr. Holiday

#### FEBRUARY 2011

4 Early Dismissal-Students 7 Professional Dev Day

21 & 22 Parent-Teacher Conf.

#### MARCH 2011

11 End of Quarter

14-18 Spring Break

#### APRIL 2011

5-7 Testing-All

Early Dismissal-Students

#### MAY 2011

18 Last Day for Students

19 Professional Dev. Day

20 Teacher Work Day

Memorial Day Holiday 30

1st Q = 45 days

2nd Q = 43 days 3rd Q = 48 days

4th Q = 44 days

#### School Start/ End

End of Semester

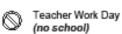
End of Quarter

(early dismissal)

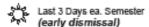
Parent-Teacher Conf. (no school)

Early dismissal/Teacher training

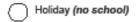
Prof. Development Day (no school)













#### NON-DISCRIMINATION NOTICE



#### **Public Notice**



The Fairbanks North Star Borough School District does not discriminate on the basis of race, color, religion, sex, age, national origin, disability, marital status, pregnancy, sexual orientation or veteran status.

The Fairbanks North Star Borough School District does not discriminate on the basis of sex in violation of Title IX of the Education Amendments of 1972 in the educational programs or activities which it operates.

The Fairbanks North Star Borough School District does not discriminate on the basis of disability in violation of Section 504 of the Rehabilitation Act of 1973. This includes admission or access to, or treatment or employment in its programs, services, and activities.

Individuals requiring further information should contact the designated compliance director:

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