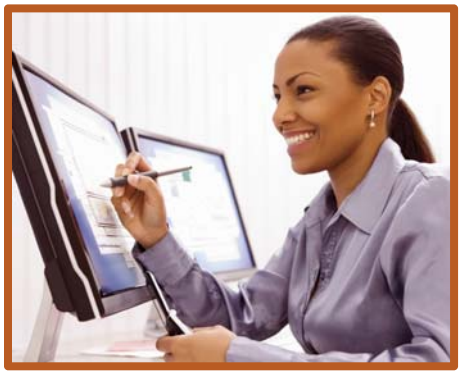
COLLEGE AND CAREER READINESS

USEAM
November 10, 2011

Why do students need to be College and Career Ready?

- Jobs require more postsecondary education.
- Recent research and reports



What is College and Career Readiness?

- Promises to Keep
  - *"Establishing curriculum with high standards and relevance for all Utah children."*
    - Senior Year Report
    - Alignment of Courses
    - SEOP and Pathways

What is College and Career Readiness?

- **Joint statement from Board of Regents and State Board of Education**
  - Build an Academic Foundation
  - Develop Intellectual and Career Capacity
  - Evaluate Progress for College
  - Explore Postsecondary Options
- **Educational Policy Improvement Center (David Conley's Work)**
  - Key Cognitive Strategies
  - Key Content
  - Academic Behaviors
  - Contextual Skills & Awareness

What is College and Career Readiness?

- **ACT**
  - Students enroll in credit-bearing programs without the need for remediation.
  - The College Readiness Standards statements are intended to help students understand the meaning of the scores earned in EXPLORE, PLAN and ACT.
  - The College Readiness Standards serve as a direct link between what students have learned and what they are ready to learn next.
- **Pathways to Prosperity Report**
  - A comprehensive pathways network which includes:
    - embracing multiple approaches to help youth make the transition to adulthood,
    - involving the nation's employers in things like work-based learning and
    - creating a new social compact with you people.

What is College and Career Readiness?

- College Board - Eight Components of College and Career Readiness
  - Students aspirations for college
  - Academic planning for college and career readiness
  - Enrichment and extracurricular engagement
  - College and Career exploration and selection
  - College and career assessments
  - Comprehensive information about college costs
  - College and career admissions processes
  - Transition from high school graduation to college enrollment

Pathways to College: Next Steps for Utah

Governor's Education Excellence Commission	HigherEd Utah2020, State Board of Regents	*Practice Guide: Navigating the Path to College*	Strengthening the Senior Year, Utah State Office of Education
Provide online courses for high school seniors that complete college and university general education requirements.	Expand the pipeline of college/career-ready and college-inclined high school graduates. • CCR standards • Collaboration between K-12 and HED • Increase participation rates	Offer courses and curricula that prepare students for college-level work, and ensure that students understand what constitutes a college-ready curriculum by 9th grade.	Provide students with a broad array of opportunities that prepare them for careers and postsecondary education. • Access and communication • Incentives and supports • 21st century learning environments
Support the goal of achieving 90% proficiency in 3rd grade reading and 6th grade math.	Stop leakages in the higher education pipeline by increasing the number who persist and complete their education once they enter college. • New funding mechanisms tied to educational outcomes • Statewide completion goals, measures, and progress reports • Transform remediation	Utilize assessment measures throughout high school so that students are aware of how prepared they are for college, and assist them in overcoming deficiencies as they are identified.	Institute quality assurance for the Utah Comprehensive Counseling and Guidance Program by holding districts accountable for Utah State Board Rule R277-426-3. • Achieve desired counselor-to-student ratios • Mentors and role models • Parent involvement • 6-year plans and portfolios • UtahFutures.org
Improve internal alignments with public education, higher education, and Utah's economy.	Expand the ability of colleges and universities to provide quality opportunities for more students. • Greater efficiencies • Expanded capacity • Expand the community college function • Fund enrollment growth	Surround students with adults and peers who build and support their college-going aspirations.	Ensure that courses are rigorous and relevant to students' learning needs and goals, and that multiple measures are used to assess outcomes. • Implement Common Core State Standards • Standards-based grading • LEA course audits • ACT standards and products • High-quality instruction
Expand computer-adaptive, formative assessments based on the Common Core State Standards.	Transform the way higher education meets the needs of the 21st-century student through efficiencies and technology.	Engage and assist students in completing critical steps for college entry.	
Finalize mission-based funding for Utah's institutions of higher education.	Better leverage higher education in growing Utah's economy as a way to extend prosperity and grow the tax base of the state.	Increase families' financial awareness, and help students apply for financial aid.	
Implement Common Core State Standards.			
Expand private industry/public education partnerships such as UCAP.			
Restore optional all-day kindergarten.			

How do we help students align classes to College and Career Fields/ Pathways?

- SEOP: *Plan for College & Career Readiness*:
  - Objectives
  - Goal setting and planning
    - Next step plans
    - 4-year plus plans
    - Education and career goals
      - Know about yourself.
      - Know about the world of work.
      - Find career path that suits you!
    - Graduation requirements and progress
  - Supportive Assessments

Moving forward with SEOP: Plans for College and Career Readiness

- What Works Clearinghouse Helping Students Navigate the Path to College: What High Schools Can Do:
  - Curricula
  - Assessments
  - Support Network
  - Entry Assistance
  - Financial Awareness/Preparedness

Plan for College and Career

DRAFT

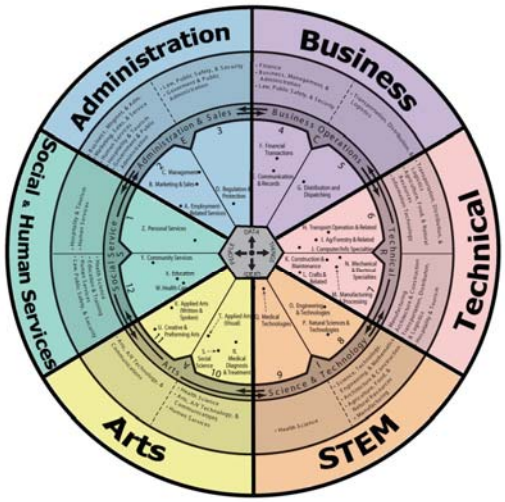
Student Name: _____ *Date:* _____

High School Graduation Requirements (Districts may require additional credits.)		Suggested High School Courses - College and Career Ready				*Post-Secondary & Career Goals*
		9th Grade	10th Grade	11th Grade	12th Grade	
Language Arts	**4.0**	Language Arts 9 (1.0)	Language Arts 10 (1.0)	Language Arts 11 (1.0)	Language Arts 12 (1.0)	
Mathematics**	**3.0**	Secondary I (1.0)	Secondary II (1.0)	Secondary III (1.0)		
Science	**3.0**	Earth Systems (1.0)	Biological Science (1.0)	Physics (1.0)		
Soc Studies	**3.0**	Geography for Life (.5)	World Civilization (.5)	U.S. History (1.0)	U.S. Gov.& Cit. (.5)	
				Fin Literacy (.5)		
Health/ PE	**2.0**	Participation Skills & Fitness for Life (1.0)		Health (.5) Lifetime Activities or Sport (.5)		
Fine Arts	**1.5**	Fine Arts Course (.5)	Fine Arts Course (.5)	Fine Arts Course (.5)		
Comp Tech	**.5**	Computer Tech (.5)				
CTE	**1.0**	Career and Technical Education (1.0)				
Electives	**2.0 - 6.0**	Choice of Flexible Electives (2.0-6.0)				
Focused Electives in College and Career Ready Pathway	4.0-6.0	*Recommended Pathway Courses 4.0-6.0 credits*				
		9th Grade	10th Grade	11th Grade	12th Grade	
		_____	_____	_____	_____	
		_____	_____	_____	_____	
		_____	_____	_____	_____	
		_____	_____	_____	_____	
TOTAL CREDITS	**24-32**					

What are the tools available to help students plan?

- ACT Pilot Suite
- World of Work Map
- CTE Pathways
- UtahFutures
- CE Aligned to post-secondary programs of study

World of Work Map



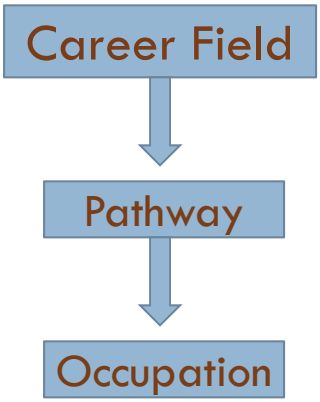
World of Work Map is Foundation of Utah's Six Broad Career Fields

- Career Fields
  - Technical
  - STEM
  - Arts
  - Social & Human Services
  - Administration
  - Business

Why the World of Work Map?

- Familiar to students and counselors
- Research based
- Aligns to UtahFutures
- Consistent with areas of interest now used by U. S. Department of Labor
- Aligns to other tools used in schools

Career Field and Pathways



Broad World of Work Areas
(STEM, Technology, ART, Social & Human Services, Administration & Business)

Sequence of Courses
(High school and post-secondary courses culminating in a post-secondary certificate or degree.)

Pathways – College and Career Ready

STEM	Arts	Social & Human Service	Administration	Business	Technical
Database Dev & Admin IT Technical Support Digital Media (Multimedia) Network Systems Programming/Software Dev Web Development & Admin Engineering **Mathematics*** **Science*** Agriculture Systems Technology Horticulture Science & Mgt National Resources Animal Science Plant & Soil Science Food Science Dietetics & Nutrition Biotechnology Dental **Physician*** Emergency Medical Tech Medical Assisting Nursing Pharmacy Surgical Tech Therapeutic Rehabilitation/Exercise Medical Office Medial Office Administration	Commercial Arts Commercial Photography **Fine Arts*** **Craft Arts*** Interior Design Fashion Design, Manufacturing and Merchandising Music* **Dance*** **Drama*** **Language -Oral & Written*** **Foreign Language***	Law Enforcement Firefighting **Law and Politics*** Family & Human Services Consumer Economic Services Child Development **Education*** **Social Science*** Food Services & Culinary Culinary Arts	Marketing Entrepreneurship Marketing Management Sales and Service Marketing	Business Entrepreneurship Business Management	Carpentry Electrician HAVAC Plumbing Radio Broadcasting TV Broadcasting Automotive Service Technician Electronics Heavy Duty Diesel Cabinetmaking Drafting/CAD Graphics/Printing Machine Tool Welding

** = New Pathways To Develop*

Example Pathway in Engineering

STEM Career Field						Engineering PATHWAY
High School Graduation Requirements*		***College Ready***	**Suggested High School Courses - College and Career Ready**			
			9th Grade Suggested	**10th Grade** Suggested	**11th Grade** Suggested	**12th Grade** Suggested
Language Arts	**4.0**	***4.0***	Language Arts 9 (1.0)	Language Arts 10 (1.0)	Language Arts 11 (1.0)	Language Arts 12 (1.0)
Mathematics	**3.0**	***3.0-4.0***	Secondary I (1.0)	Secondary II (1.0)	Secondary III (1.0)	
Science	**3.0**	***3.0-4.0***	Earth Systems (1.0)	Biological Science (1.0)	Chemistry (1.0)	
Soc Studies	**3.0**	***3.0***	Geography for Life (.5)	World Civilization (.5)	U.S. History (1.0)	U.S. Gov.& Cit. (.5)
Fin Literacy					Fin Literacy (.5)	
Health/ PE	**2.0**	***2.0***	Participation Skills & Fitness for Life (1.0) Health (.5) Lifetime Activities or Sport (.5)			
Fine Arts	**1.5**	***1.5***	Fine Arts Course (.5) Fine Arts Course (.5) Fine Arts Course (.5)			
Comp Tech	**.5**	***.5***	Computer Tech (.5)			
CTE	**1.0**	***1.0***	Career and Technical Education (1.0)			
Electives	**6.0**	***2.0 - 6.0***	Choice of Flexible Electives			
Focused Electives in College and Career Ready Pathway		***4.0-6.0***	***Focused Elective Courses in A Pathway***			
			Calculus (1.0) Physics (1.0) World Languages (2.0) Engineering Design, Introduction (1.0) Principles of Engineering (1.0) Engineering Design & Development (1.0)		Aerospace Engineering (1.0) Digital Electronics (1.0) Computer Integrated Manufacturing (1.0) Civil Engineering & Architecture (1.0) Student Internship (1.0)	
Total Credits	**24**	**24-32**				

		Certificate		Two-Year Associate		Transfer Associate
		A certificate of completion prepares students with job-entry skills related to specific labor market needs.		Associate of Applied Science (AAS) degrees are two-year degrees in a specific subject that prepares students for employment.		**(To Four Year Degrees & Beyond)** Associate of Arts (AA) and Associate of Science (AS) degrees are designed for students who plan to complete their first two years of college work at a community college, then transfer to a four-year institutions to pursue a bachelor's degree.
Gen. Education	**9 Credits**	**Composition** (3 credits) CC English 1010 * or AP **Math/Quantitative Literacy** (3 credits) CC Math 1010, 1030, 1040, or 1050 * or AP **Human Relations** (3 credits) Approved classes such as CC Psychology 1500 or CC Communications 1020 *	**9 Credits**	**Composition** (3 credits) CC English 1010 * or AP **Math/Quantitative Literacy** (3 credits) CC Math 1010, 1030, 1040, or 1050 or AP **Human Relations** (3 credits) Approved classes such as CC Psychology 1500 or CC Communications 1020	**12 Credits**	**Composition**(6 credits) CC English 1010 and English 2010 ** or AP **Math/Quantitative Literacy** (3 credits) CC Math 1020, 1040, or 1050 ** or AP **Social Studies /American Institutions** (3 credits) CC Economics 1740, CC History 1700, or CC Political Science 1100 **
Exploration	**18-27 Credits**				**18-27 Credits**	Students choose exploration/ elective courses available within areas of: • -fine arts (CC) • -humanities (CC) • -life science, physical science (CC) • -social (CC) • -science (CC) or AP
Program		**Basic Technical Training** Basic Technical Training prepares students with job-entry skills related to specific labor market needs. Take CC CTE courses. Students in the Utah College of Applied Technology are not required to take general education courses. (Note: Some Career and Technical Education courses fulfill general education requirements.)	**51-54 Credits**	**Advanced Technical Specialty** (51-54 credits) Advanced technical training gives the student the necessary skills to master specific technical specialties and provides a basis for advancement to fill labor market needs. Take CC CTE courses. (Note: Some Career and Technical Education courses fulfill general education requirements.)	**21-33 Credits**	**Program of Study** (21-33 Credits) Programs of study have specific, required courses and breath or elective courses. Math programs require math classes, psychology programs require psychology classes. Take CC in CTE courses and other course in the Pathway. (Note: Some Career and Technical Education courses fulfill general education requirements.)

4 Year Degree Goal *(Mirror Regent's Scholarship)*

High School Graduation Requirements

	9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested
Lang Arts 4	Language Arts 9 (1.0)	Language Arts 10 1.0)	Language Arts 11 (1.0)	Language Arts 12 (1.0)
Math 3	Mathematics (1.0)	Mathematics (1.0)	Mathematics (1.0)	CC Math1050 (1.0)
Social Studies 2.5	Geography for Life (.5) U.S. Gov. & Citizen (.5)	World Civ(.5)	U.S. History (1.0) CC History1700	CCEcon1740, CC Pol Sc 1100, CC Psy 1500, or CC Com 1020
Science 3	Earth Sys (1.0)	Biology (1.0)	Chem/Physics Other (1.0)	Chem/Physics Other (1.0)
PE./HE 2	Participation Skills/Fitness/Lifetime Activities/Sport & Health			
Arts 1.5	Fine Arts Courses (1.5)			
Fin Lit .5	Financial Literacy (.5)			
Comp .5	Computer Tech (.5)			
CTE 1	Career and Technical Education (1.0)			
Elective	World Language (2.0)			
College and Career Ready Pathway Course 4- 9.5	Take courses that concentrate in your Pathway goal.			

2 Year Degree or Certificate of Completion Goal

High School Graduation Requirements

	9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested
Lang Arts 4	Language Arts 9 (1.0)	Language Arts 10 1.0)	Language Arts 11 (1.0)	Language Arts 12 (1.0)
Math 3	Mathematics (1.0)	Mathematics (1.0)	Mathematics (1.0)	CC Math1050 Or other Math recommended
Social Studies 2.5	Geography for Life (.5) U.S. Gov. & Citizen (.5)	World Civ(.5)	U.S. History (1.0) CC History1700	
Science 3	Earth Sys (1.0)	Biology (1.0)	Chem/Physics Other (1.0)	
PE./HE 2	Participation Skills/Fitness/Lifetime Activities/Sport & Health			
Arts 1.5	Fine Arts Courses (1.5)			
Fin Lit .5	Financial Literacy (.5)			
Comp .5	Computer Tech (.5)			
CTE 1	Career and Technical Education (1.0)			
Elective	World Language (2.0)			
College and Career Ready Pathway Course 4- 9.5	• Take Career and Technical Education Pathway courses (3.0 -4.0 credits)			

Sample In-Demand Occupations by Career Field and Training Level

Career Field	Sample In-Demand* Occupations	Level of Training
Administration	Chief Executive, Marketing Manager, General Operations Manager	4
	Insurance Sales Agent	2
	Sales Representative-Wholesale, Manufacturing & Technical/Scientific, First-Line Supervisor	1
Business	Budget Analyst, Database Administrator	4
	Paralegal, Legal Secretary, Real Estate Appraiser	2
	Administrative Assistant, Bookkeeping/Accounting Clerk	1
Technical	Civil Engineer, Flight Engineer, Surveyor	4
	Radiologic Technologist, Computer Support Specialist, Civil Engineering Technician	2
	Electrical & Electronics Repairers, HVAC Mechanic, Auto Service Technician, Security & Fire Alarm Systems Installer	1
STEM	Computer Programmer, Computer Software Engineer, Biomedical Engineer, Chemist, Industrial Engineer	4
	Diagnostic Medical Sonographer, Environmental Science Technician	2
Arts	Architect, Commercial Designer	4
	Interior Designer	2
	Architectural Drafter	1
Social & Human Services	Kindergarten Teacher, Elementary Teacher,	4
	Emergency Medical Technician, Physical Therapy Assistant	2
	Teacher Assistant	1

*Selected occupations are all rated "3-Star" or better. Utah Department of Workforce Services.

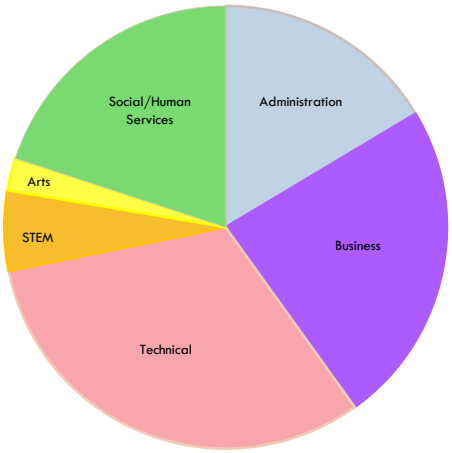
Example: FIELD → PATHWAY → OCCUPATIONS

CAREER FIELD: STEM
CAREER PATHWAY: Pre-Engineering

(Sampling of) OCCUPATIONS Associated with Pre-Engineering:

- Industrial Engineering Technicians
- Computer Software Engineers
- Industrial Engineers
- Mechanical Engineers
- Aerospace Engineers
- Electrical Engineers
- Electronics Engineers
- Chemical Engineers
- Computer Hardware Engineers
- Materials Engineers

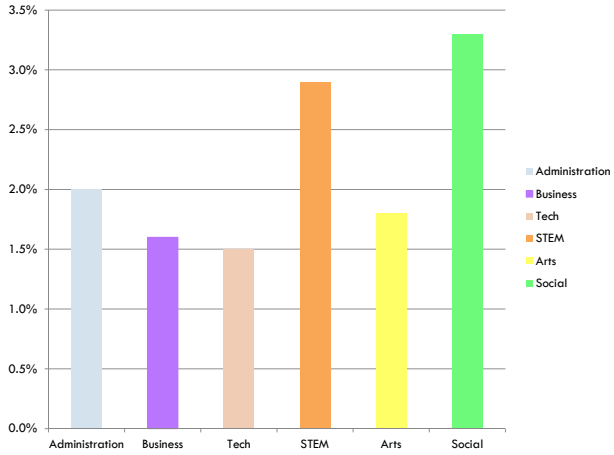
Share of Annual Job Openings* by Career Field



- Administration, 16%
- Business, 24%
- Technology, 32%
- STEM, 6%
- Arts, 2%
- Social/Human Services, 19%

**Projected Employment 2008-2018, Utah Department of Workforce Services*

Occupational Outlook – Average Annual **Growth Rate** by Career Field



Labor market information will help students understand how their high school plans of study can prepare them for related college and career options.

**Projected Employment 2008-2018, Utah Department of Workforce Services*

What Utah Employers Want

TOP TWENTY

"Soft Skills"

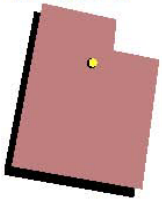
- Customer service
- Interpersonal/social
- Professional work ethic
- Adaptability and flexibility
- Team-work
- Dependability, reliability
- Honesty
- Cultural sensitivity
- Taking initiative
- Critical thinking
- Accountability
- Positive attitude
- Leadership

And More …

- Verbal/written communication
- Problem solving
- Computer science and technology
- Job-specific training
- Technical skills
- Math and science
- Financial literacy

Employers were asked,

"What skills do you consider critical?"



Another example of information developed to help students understand relevancy of education to future employment.

Based on information contained in a report from The Center for Public Policy and Administration (CPPA) at the University of Utah) submitted to the K-16 Workforce Committee.

Next Steps

- SEOP: *Plan for College & Career Readiness*
- Statewide Steering Committee
- New Pathways Developed (in addition to CTE)
- Website For Parents and Students
- Professional Development
- Connections With Other Initiatives