



Project Final Report

Project Name	Clarify Program Paths (2018-19)
Description	The Clarify Program Paths team is responsible for creating and implementing areas of interest and establishing and implementing clear and coherent academic and career program paths in the form of program roadmaps.
Project Sponsor	Student Success Council
Team Leads	Bill Simpson, Instructional Faculty, Physics [Lead] Tony Giusti, Instructional Faculty, Nutrition [Co-Lead] Kate Jaques, AVP Instruction (Curriculum) [Co-Lead]
Team Members	Judy Mays, Counselor Marsha Reske, Dean, Distance Education and VEC Rebeca Rico, Student Rocio Owens, Instructional Faculty, Mathematics Lisa Roberts-Law, Counselor Kathy Rodgers, Instructional Faculty, English Mike Robinson, Classified Staff, Career & Support Services
Date	May 10, 2019

Summary

The Clarify Program Paths (2018-19) project team is a continuation of the Clarify Program Paths team chartered in 2017. Its role was to implement many of the recommendations of the earlier team, in particular to create program roadmaps for the top-10 programs in each area of interest and all of the associate degrees for transfer (ADTs). By the end of the spring 2019 semester, the team will have completed all of its deliverables. The team also has seven recommendations to continue the work beyond the timespan of the project.

Deliverables

- 1) *An updated list of areas of interest (names, definitions, included programs) for the 2018-19 academic year submitted to the Student Success Council.*
 - The list was submitted to the council on Sep. 14, 2018. A copy is included in Appendix A of this report.
- 2) *An updated list of the top 10 programs in each area of interest submitted to the Student Success Council.*
 - The list was submitted to the council on Sep. 14, 2018. A copy is included in Appendix B of this report.
- 3) *A work plan and timeline for the project submitted to the Student Success Council.*
 - A work plan/timeline for the project was submitted to the council on Sep. 28, 2018. A copy is included in Appendix C of this report.
- 4) *Roadmaps for the top 10 programs submitted to the Student Success Council.*
 - The top 10 programs within each area of interest have at least one completed roadmap.
 - As of May 10, there are over 250 completed roadmaps. A list of approved roadmaps for each program, with links to the maps, can be found on the [CPP website](#).
 - All approved roadmaps will be available on the new college website once it goes live.
 - Examples of maps for certificates, local CTE degrees, local transfer degrees, and ADTs are included in Appendix D of this report.
- 5) *A proposal to create a new Academic Senate committee submitted to the Academic Senate.*
 - The Academic Senate reviewed a proposal to create a Program Paths Committee on Oct. 25. The proposal had its first reading on Nov. 8 and its second reading Dec. 13. It was approved by the Senate and is being implemented this semester with assistance from the Clarify Program Paths project team.

- 6) *A proposal to create or purchase software for maintaining program roadmaps submitted to the Student Success Council.*
- The team recommends using *Atlas* to create and maintain program roadmaps. See the recommendations section below for more details.

Recommendations

Recommendation #1: Adopt *Atlas* for Managing and Publishing Program Roadmaps

The team recommends that the college adopts *Atlas* as its program roadmap maintenance and publishing tool. *Atlas* is a program mapping tool created by Ben Barber for the ARC Online 2.0 project. It is currently being expanded to work for all four colleges in the district. The team's initial specifications for *Atlas* are in appendix E. The development and refinement of *Atlas* will likely continue into spring 2020, but an initial version is planned for release in the summer for testing and internal use by the Program Paths Committee.

The team also recommends the college adopts *Atlas* for publishing roadmaps, both in printable form and on the ARC website. The specifications of what information is displayed are included in appendix E. The team's recommendations for integration of *Atlas* into the new college website are in appendix F.

Recommendation #2: Review and Update Program Roadmaps Annually

The team recommends that the college integrate program roadmap review and maintenance into an existing annual process, like annual unit planning, to ensure that roadmaps are regularly reviewed and updated.

Recommendation #3: Incorporate Program Roadmaps in HighPoint Degree Planner

The team recommends that the college incorporates program roadmaps into the HighPoint *Degree Planner* software being implemented by the district, assuming that the software can be adapted to work with roadmaps. Ideally, program roadmaps would be the starting point for creating individualized educational plans.

Recommendation #4: Provide Professional Development

The team recommends that the college provides professional development for faculty and staff to show them how to use areas of interest and program roadmaps as part of their jobs.

Recommendation #5: *Integrate Program Roadmaps and Areas of Interest into Other College Guided Pathways Redesign Work*

The team recommends that the college integrates program roadmaps and areas of interest into the other Guided Pathways redesign work being done at the college. This could include using program roadmaps during initial counseling sessions with new students and organizing orientation sessions based on students' initially expressed area of interest. It could also include outreach to feeder high schools to get students exploring career and major options prior to entering college.

Recommendation #6: *Collaborate Districtwide on Guided Pathways Design Principles*

There is building momentum for districtwide collaboration on Guided Pathways implementation, to create a consistent student experience across the district. The team recommends that the college use its recent experience implementing Guided Pathways to help the district create meaningful and useful design principles that would work for all four colleges.

Recommendation #7: *Create a Guided Pathways Coordinator Position*

There are a number of ongoing, program-paths-related duties that need to be assigned to someone at the college. The team recommends that the college consider creating a Guided Pathways Coordinator position, whose duties would include:

- chairing the Program Paths Committee
- acting as the college-level administrator of *Atlas*
- assisting in the coordination of Guided Pathways efforts within the college, including making sure the college website adheres to Guided Pathways design principles
- acting as the college's liaison for districtwide Guided Pathways implementation and coordination
- maintaining up-to-date Career Coach and CCCApply connections to our areas of interest and program roadmaps
- working with the Virtual Education Center to create and maintaining program roadmaps for fully online programs

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Appendix A

Areas of Interest: Names, Definitions, and Included Programs



Arts: programs that provide opportunities for students to develop their skills and talents in the visual and performing arts (music, dance, theatre, drawing, painting, ceramics, sculpture, photography), as well as the applied arts (design, fashion, culinary arts, commercial music).

- Art
 - Art (AA)
 - Art History (AAT)
 - Freelance Photography (certificate)
 - Gallery Management (certificate)
 - Sculpture (certificate)
 - Studio Art (AAT)
- Art New Media
 - Art New Media (AA)
 - Art New Media: Foundation (certificate)
 - Art New Media: Graphic Design (certificate)
 - Art New Media: Illustration (certificate)
 - ARTNM: 3D Animation (certificate)
 - ARTNM: 3D Modeling and Texturing (certificate)
 - ARTNM: 3D Rigging Technical Director (certificate)
 - ARTNM: 3D Technical Director (certificate)
 - ARTNM: Web Design (certificate)
- Dance
 - Dance (AA)
- English
 - Literary Publishing (certificate)
- Fashion
 - Apparel Construction (certificate)
 - Fashion Design (AA)
 - Fashion Design (certificate)
 - Fashion Entrepreneur (certificate)
 - Fashion Illustration (certificate)
 - Fashion Merchandising (AA)
 - Fashion Merchandising (certificate)
 - Fashion Retailing Certificate (certificate)
 - Patternmaking and Draping (certificate)
 - Runway Design (certificate)
- Gerontology

- Gerontology: Environmental Design (AA)
 - Gerontology: Environmental Design (certificate)
- Horticulture
 - Floristry (certificate)
- Hospitality Management
 - Culinary Arts/ Restaurant Management (certificate)
 - Hospitality Management: Culinary Arts/Restaurant Management (AA)
 - Introductory Baking (certificate)
- Interdisciplinary Studies
 - History of the Creative Arts (AA)
- Interior Design
 - Designed 4 Life (certificate)
 - Green Building and Sustainable Design for Interiors (certificate)
 - Interior Planning and Design (AA)
 - Interior Retail Merchandising (certificate)
 - Para Professional Interior Planning and Design (certificate)
 - Universal Design (certificate)
- Music
 - Commercial Music: Business (AA)
 - Commercial Music: Business (certificate)
 - Commercial Music: Recording (AA)
 - Commercial Music: Recording (certificate)
 - Digital Audio Production (certificate)
 - Jazz Studies (AA)
 - Music (AA)
 - Music (AAT)
 - Music Instructional Assistant (certificate)
 - Music Management and Promotion (certificate)
 - Studio Jazz/Pop Voice Instructor (certificate)
 - Studio Music Instructor (certificate)
 - Studio Voice Instructor (certificate)
- Theatre Arts
 - Acting (certificate)
 - Children's Theatre (certificate)
 - Costuming (certificate)
 - Musical Theatre (certificate)
 - Theatre Arts (AAT)
 - Theatre Arts: Acting (AA)
 - Theatre Arts: Technical Production (AA)
 - Theatre Production (certificate)
- Theatre Arts: Film

- Film (AA)
- Film (certificate)



Language and Communication: programs focusing on language acquisition, textual analysis and interpretation, and the use of language to communicate ideas clearly.

- Deaf Culture & ASL
 - Deaf Culture and American Sign Language Studies (AA)
 - Deaf Culture and American Sign Language Studies (certificate)
- English
 - English (AAT)
 - English Communication and Literature (AA)
 - Literary Publishing (certificate)
- English as a Second Language
 - Advanced Proficiency Certificate in English as a Second Language (certificate)
 - Advanced-High Proficiency Certificate in English as a Second Language (certificate)
 - Intermediate-High Proficiency in English as a Second Language (certificate)
 - Intermediate-Low Proficiency in English as a Second Language (certificate)
 - Intermediate-Mid Proficiency in English as a Second Language (certificate)
- Foreign Languages
 - Language Studies (AA)
 - Spanish (AAT)
- Healthcare Interpreting
 - Healthcare Interpreting (certificate)
- Journalism
 - Journalism and Mass Communication (AA)
 - Journalism and Mass Communications (AAT)
- Library
- ASL-English Interpreter Preparation Program
 - ASL-English Interpreter Preparation Program (AA)
 - ASL-English Interpreter Preparation Program (certificate)
- Speech
 - Communication Studies (AAT)
- Speech-Language Pathology
 - Speech-Language Pathology Assistant Program (AS)
- Technical Communications
 - Technical Communications (AA)
 - Technical Communications (certificate)



People, Culture and Society: programs that study human beings and their interactions, as well as the human condition.

- Anthropology
 - Anthropology (AAT)
 - Anthropology (AS)
- Art History
 - Art History (AAT)
- Deaf Culture & ASL
 - Deaf Culture and American Sign Language Studies (AA)
 - Deaf Culture and American Sign Language Studies (certificate)
- Early Childhood Education
 - Assistant Teacher (certificate)
 - Associate Teacher (certificate)
 - Curriculum Specialist (certificate)
 - Early Childhood Education (AA)
 - Early Childhood Education (AST)
 - Early Childhood Education Management Specialist (certificate)
 - ECE: Culture and Diversity Specialist (certificate)
 - Family Child Care (certificate)
 - Infant Specialist (certificate)
 - Master Teacher (certificate)
 - School Age (certificate)
 - Site Supervisor (certificate)
 - Special Needs Specialist (certificate)
 - Teacher (certificate)
- Economics
 - Economics (AAT)
- Honors
 - Honors Transfer (certificate)
- Geography
 - Geography (AAT)
 - Geography (AS)
- History
 - History (AAT)
- Human Career Development
- Humanities
- Interdisciplinary Studies
 - CSU General Education Certificate of Achievement (certificate)
 - History of the Creative Arts (AA)

- Intersegmental General Education Transfer (IGETC) Certificate of Achievement (certificate)
 - The Individual and Society (AA)
- International Studies
 - International Studies (AA)
- Philosophy
 - Philosophy (AAT)
- Political Science
 - Political Science (AA)
 - Political Science (AAT)
- Psychology
 - Psychology (AA)
 - Psychology (AAT)
- Social Science
 - Social Science (AA)
- Sociology
 - Sociology (AAT)
- Student Government



Science, Technology, Engineering and Mathematics (STEM): science, technology, engineering, and math programs designed for students planning to transfer to a four-year college or university and pursue a bachelor's degree (or higher) in a STEM field.

- Astronomy
- Biology
 - Biology (AST)
 - Biotechnology (AS)
 - Biotechnology (certificate)
- Chemistry
- Computer Information Science
 - Computer Science (AS)
- Engineering
 - Civil Engineering (AS)
 - Electrical Engineering (AS)
 - Mechanical Engineering (AS)
- Geography
 - Geography (AAT)
 - Geography (AS)
- Geology
 - Geology (AST)

- Mathematics
 - Mathematics (AS)
 - Mathematics (AST)
- Natural Resources
 - Environmental Conservation (AS)
 - Environmental Conservation (certificate)
 - Environmental Conservation Technician (Conservation/Restoration) (certificate)
 - Environmental Conservation Technician (Fisheries) (certificate)
 - Environmental Conservation Technician (Forest/Rangeland) (certificate)
 - Environmental Conservation Technician (Sustainability) (certificate)
 - Environmental Conservation Technician (Vegetation) (certificate)
 - Environmental Conservation Technician (Water Resources) (certificate)
 - Environmental Conservation Technician (Wildlife) (certificate)
- Physical Science & Physics
 - Physical Science/Mathematics (AS)
 - Physics (AST)
- General Science
 - General Science (AS)



Business, Hospitality and Recreation: programs that prepare students to work in government, corporate, or small-business environments, in fields such as accounting, management, marketing, sales, customer service, or (non-IT) support roles. Also, programs that contribute to the local economy through hospitality management and recreational opportunities.

- Accounting
 - Accounting (AA)
 - Accounting (certificate)
 - Accounting Clerk (certificate)
 - Taxation (certificate)
- Business
 - Business Administration (AST)
 - Computer Applications for Small Business (certificate)
 - Cross-Cultural Conflict Resolution (certificate)
 - Entrepreneurship (certificate)
 - General Business - Introduction (certificate)
 - General Business (AA)
 - General Business (certificate)
 - Small Business Management (AA)
 - Small Business Management (certificate)
- Business Technology
 - Administrative Professional (AA)

- Business Information Worker (certificate)
 - Office Assistant (certificate)
 - Office Technology (certificate)
 - Virtual Administrative Professional (AA)
 - Virtual Office Professional (certificate)
- Economics
 - Economics (AAT)
- Fashion
 - Fashion Entrepreneur (certificate)
 - Fashion Merchandising (AA)
 - Fashion Merchandising (certificate)
 - Fashion Retailing Certificate (certificate)
- Gerontology
 - Activity Leader Certificate (certificate)
 - Gerontology: Business (AA)
 - Gerontology: Business (certificate)
 - Gerontology: Recreation (AA)
 - Gerontology: Recreation (certificate)
- Hospitality Management
 - Culinary Arts/ Restaurant Management (certificate)
 - Hospitality Management: Culinary Arts/Restaurant Management (AA)
 - Hospitality Management: Restaurant Management (certificate)
 - Introductory Baking (certificate)
- Legal Assisting
 - Law Office Clerical Assistant (certificate)
 - Legal Assisting (AA)
 - Legal Assisting (certificate)
- Management
 - Conflict Management (certificate)
 - Introduction to Leadership in Action (certificate)
 - Leadership (AA)
 - Leadership (certificate)
 - Leadership in Action: Organizational Learning (certificate)
 - Leadership in Action: Organizational Systems (certificate)
 - Leadership in Action: Organizational Teams (certificate)
 - Leadership in Action: Organizational Variation (certificate)
 - Management (AA)
 - Management (certificate)
 - Project Management (certificate)
- Marketing
 - Advertising and Sales Promotion (AA)

- Marketing - Introduction (certificate)
 - Marketing (AA)
 - Retail Management (AA)
 - Retail Management (WAFC) (certificate)
- Music
 - Commercial Music: Business (AA)
 - Commercial Music: Business (certificate)
 - Music Management and Promotion (certificate)
- Real Estate
 - Real Estate (AA)
 - Real Estate (certificate)
 - Real Estate Sales (certificate)
- Recreation
 - Recreation (AA)
- Technical Communication
 - Technical Communications (AA)
 - Technical Communications (certificate)



Health, Human Services and Well Being: programs that focus on the health of the mind and body.

- Funeral Service Education
 - Funeral Service Education (AS)
- Gerontology
 - Activity Leader Certificate (certificate)
 - Dementia Care (certificate)
 - Elder Care Certificate (certificate)
 - Ethnicity and Aging Certificate (certificate)
 - Gerontology: Business (AA)
 - Gerontology: Business (certificate)
 - Gerontology: Case Management/Social Services (AA)
 - Gerontology: Case Management/Social Services (certificate)
 - Gerontology: Environmental Design (AA)
 - Gerontology: Environmental Design (certificate)
 - Gerontology: Health Care (AA)
 - Gerontology: Health Care (certificate)
 - Gerontology: Recreation (AA)
 - Gerontology: Recreation (certificate)

- Gerontology: Social Policy/Advocacy (AA)
 - Gerontology: Social Policy/Advocacy (certificate)
 - Leadership in Assisted Living Communities (certificate)
 - Social Service Designee (certificate)
- Health Education
- Healthcare Interpreting
 - Healthcare Interpreting (certificate)
- Human Lactation
 - Baby Friendly Hospital Staff (certificate)
 - Lactation Consultant Assistant (certificate)
 - Lactation Educator/Counselor (certificate)
- Human Services
 - Chemical Dependency Studies (AA)
 - Chemical Dependency Studies (certificate)
 - Human Services (AA)
 - Human Services (certificate)
- Kinesiology and Athletics
 - Fitness Specialist (certificate)
 - Kinesiology (AAT)
 - Physical Education (AS)
 - Senior Fitness (certificate)
 - Sports Medicine (AS)
- Nursing and Allied Health
 - Certified Nurse Assistant (certificate)
 - Home Health Aide (certificate)
 - Licensed Vocational Nurse (LVN) 30-unit option (certificate)
 - LVN to RN Career Mobility (AS)
 - Registered Nursing (AS)
- Nutrition
 - Dietary Manager/Dietary Service Supervisor (certificate)
 - Nutrition and Dietetics (AST)
- Paramedic and EMT
 - Emergency Medical Technician (EMT) (certificate)
 - Paramedic (AS)
 - Paramedic (certificate)
- Recreation
 - Recreation (AA)
- Respiratory Care
 - Respiratory Care (AS)
- Speech-Language Pathology
 - Speech-Language Pathology Assistant Program (AS)



Public Service and Education: programs that prepare students to work in jobs serving the public, such as education, police, fire, public health, and sign language interpreting.

- Administration of Justice
 - Administration of Justice (AS)
 - Administration of Justice (AST)
- Early Childhood Education
 - Assistant Teacher (certificate)
 - Associate Teacher (certificate)
 - Curriculum Specialist (certificate)
 - Early Childhood Education (AA)
 - Early Childhood Education (AST)
 - Early Childhood Education Management Specialist (certificate)
 - ECE: Culture and Diversity Specialist (certificate)
 - Family Child Care (certificate)
 - Infant Specialist (certificate)
 - Master Teacher (certificate)
 - School Age (certificate)
 - Site Supervisor (certificate)
 - Special Needs Specialist (certificate)
 - Teacher (certificate)
- Education/Teaching
 - Elementary Teacher Education (AAT)
- Fire Technology
 - Fire Investigation 1A (certificate)
 - Fire Investigation 1B (certificate)
 - Fire Investigation 2A (certificate)
 - Fire Investigation 2B (certificate)
 - Fire Management 1 (certificate)
 - Fire Technology (certificate)
 - Fire Technology (AA)
 - Firefighter Recruit Academy (certificate)
 - Training Instructor 1A (certificate)
 - Training Instructor 1B (certificate)
 - Training Instructor 1C (certificate)
 - USDA Advanced Academy (certificate)
 - USDA Basic Academy (certificate)
- Gerontology

- Gerontology: Case Management/Social Services (AA)
 - Gerontology: Case Management/Social Services (certificate)
 - Gerontology: Social Policy/Advocacy (AA)
 - Gerontology: Social Policy/Advocacy (certificate)
 - Social Service Designee (certificate)
- Healthcare Interpreting
 - Healthcare Interpreting (certificate)
- Homeland Security
 - Homeland Security (certificate)
- Human Lactation
 - Baby Friendly Hospital Staff (certificate)
 - Lactation Consultant Assistant (certificate)
 - Lactation Educator/Counselor (certificate)
- Nursing and Allied Health
 - Certified Nurse Assistant (certificate)
 - Licensed Vocational Nurse (LVN) 30-unit option (certificate)
 - LVN to RN Career Mobility (AS)
 - Registered Nursing (AS)
- Paramedic & EMT
 - Emergency Medical Technician (EMT) (certificate)
 - Paramedic (AS)
 - Paramedic (certificate)
- Public Safety
 - 80 public safety certificates
- Respiratory Care
 - Respiratory Care (AS)
- ASL-English Interpreter Preparation Program
 - ASL-English Interpreter Preparation Program (AA)
 - ASL-English Interpreter Preparation Program (certificate)



Applied Technology and Digital Arts: career and technical programs that provide students with opportunities to apply their skills and knowledge to real-world situations (through work experience, field experience, and hands-on projects) using electronics, computers, and other modern technologies.

- Art
 - Freelance Photography (certificate)
- Art New Media
 - Art New Media (AA)

- Art New Media: Foundation (certificate)
 - Art New Media: Graphic Design (certificate)
 - Art New Media: Illustration (certificate)
 - ARTNM: 3D Animation (certificate)
 - ARTNM: 3D Modeling and Texturing (certificate)
 - ARTNM: 3D Rigging Technical Director (certificate)
 - ARTNM: 3D Technical Director (certificate)
 - ARTNM: Web Design (certificate)
- Biotechnology
 - Biotechnology (AS)
 - Biotechnology (certificate)
- Business
 - Computer Applications for Small Business (certificate)
- Business Technology
 - Office Technology (certificate)
 - Virtual Administrative Professional (AA)
 - Virtual Office Professional (certificate)
- Computer Information Science
 - CIS: Computer Networking Management (AS)
 - CIS: Computer Networking Management (certificate)
 - CIS: Computer Programming (AS)
 - CIS: Computer Programming (certificate)
 - CIS: Database Management (AS)
 - CIS: Database Management (certificate)
 - CIS: Microcomputer Applications (AA)
 - CIS: Microcomputer Applications (certificate)
 - CIS: Mobile Programming (certificate)
 - CIS: PC Support (certificate)
 - CIS: PC Support Management (AS)
 - Computer Information Security Essentials (certificate)
 - Computer Science (AS)
 - Information Systems Security (AS)
 - Information Systems Security (certificate)
 - Internet Marketing (certificate)
 - Network Administration Essentials - Windows (certificate)
 - Web Developer (certificate)
 - Web Publishing (certificate)
- Design & Engineering Technology
 - Design Technology (AA)
 - Design Technology (certificate)
 - Engineering Technology (AS)

- Engineering Technology (certificate)
- Digital Music
 - Digital Audio Production (certificate)
- Electronics Technology
 - Advanced Electronics and Telecommunications (certificate)
 - Basic Electronics and Telecommunications (certificate)
 - Basic Mechatronics (certificate)
 - Biomedical Equipment Technology (certificate)
 - Digital Home Technology Integration (certificate)
 - Digital Repair and Upgrade Technician (certificate)
 - Electronic Systems Technology (AS)
 - Electronic Systems Technology (certificate)
 - Fiber Optics (certificate)
 - Mechatronics (AS)
 - Mechatronics (certificate)
 - Robotics (certificate)
 - Solar Energy Systems Design, Estimation, and Sales (certificate)
 - Solar Energy Technology (certificate)
 - Telecommunication Specialist (certificate)
- Fashion
 - Apparel Construction (certificate)
 - Patternmaking and Draping (certificate)
- Geographic Information Systems
 - Geographic Information Systems (GIS) (AS)
 - Geographic Information Systems (GIS) (certificate)
- Horticulture
 - Floristry (certificate)
 - Horticulture (AS)
 - Horticulture (certificate)
 - Horticulture Skills (certificate)
 - Landscape Design (certificate)
 - Landscape Design Technology (AS)
 - Landscape Design Technology (certificate)
 - Plant Production (certificate)
 - Sustainable Landscape (certificate)
- Interior Design
 - Designed 4 Life (certificate)
 - Green Building and Sustainable Design for Interiors (certificate)
 - Interior Planning and Design (AA)
 - Interior Retail Merchandising (certificate)
 - Para Professional Interior Planning and Design (certificate)

- Universal Design (certificate)
- Journalism
 - Journalism and Mass Communication (AA)
 - Journalism and Mass Communications (AAT)
- Natural Resources
 - Environmental Conservation (certificate)
 - Environmental Conservation Technician (Conservation/Restoration) (certificate)
 - Environmental Conservation Technician (Fisheries) (certificate)
 - Environmental Conservation Technician (Forest/Rangeland) (certificate)
 - Environmental Conservation Technician (Sustainability) (certificate)
 - Environmental Conservation Technician (Vegetation) (certificate)
 - Environmental Conservation Technician (Water Resources) (certificate)
 - Environmental Conservation Technician (Wildlife) (certificate)
- Theatre Arts
 - Theatre Arts: Technical Production (AA)
- Welding
 - Gas Metal Arc and Flux Core Arc Welding Plate (252 hours) (certificate)
 - Gas Tungsten Arc Plate and Pipe Welding (180 hours) (certificate)
 - Pipe Welding (certificate)
 - Shielded Metal Arc Plate and Pipe (270 hours) (certificate)
 - Welding Equipment Maintenance and Blueprint Interpretation (234 hours) (certificate)
 - Welding Metallurgy and Inspection (270 hours) (certificate)
 - Welding Technology (AS)
 - Welding Technology (certificate)
- Work Experience



Manufacturing, Construction and Transportation: programs that prepare students to work in the manufacturing, construction, and transportation sectors. This may include design, engineering, construction, manufacturing, and repair.

- Apprenticeship
 - Carpenter Apprenticeship (certificate)
 - Carpenter Apprenticeship (AA)
 - Drywall/Lathing Apprenticeship (certificate)
 - Drywall/Lathing Apprenticeship (AA)
 - Electrical Apprenticeship (certificate)
 - Electrical Apprenticeship (AA)
 - Electrical Residential Apprenticeship (certificate)
 - Green Technology Pre-Apprenticeship (certificate)

- Infrastructure Pre-Apprenticeship (certificate)
- Ironworkers Apprenticeship (certificate)
- Ironworkers Apprenticeship (AA)
- Mill and Cabinet Maker Apprenticeship (certificate)
- Pre-Apprenticeship (certificate)
- Residential/Commercial Electrician Trainee (certificate)
- Sheet Metal Apprenticeship (certificate)
- Sheet Metal Apprenticeship (AA)
- Sheet Metal Residential Apprenticeship (certificate)
- Sheet Metal Service Technician Apprenticeship (certificate)
- Sheet Metal Service Technician Apprenticeship (AA)
- Utilities Worker Pre-Apprenticeship (certificate)
- Automotive Collision Technology
 - Automotive Claims Estimator (certificate)
 - Automotive Collision Technology. (AS)
 - Automotive Collision Technology. (certificate)
 - Automotive Collision Technology-Non-Structural (certificate)
 - Automotive Collision Technology-Refinish (certificate)
 - Automotive Collision Technology-Structural (certificate)
- Automotive Technology
 - Air Conditioning Service (certificate)
 - Alternative Fuels and Green Vehicle Technology (certificate)
 - Automotive Analysis (AS)
 - Automotive Analysis (certificate)
 - Automotive Brakes (certificate)
 - Automotive Component Service Technician (AS)
 - Automotive Component Service Technician (certificate)
 - Automotive Emissions Inspection and Repair Technician (certificate)
 - Automotive Service Technician (certificate)
 - Automotive Suspension and Steering (certificate)
 - Automotive Technology (AS)
 - Automotive Technology (certificate)
 - Extreme Tuner Certificate (certificate)
 - Parts and Service (certificate)
 - Small Engines (certificate)
 - Snap-On™ Certification (certificate)
 - Transmission Service (certificate)
 - Undercar Service (certificate)
- Design & Engineering Technology
 - Design Technology (AA)
 - Design Technology (certificate)

- Engineering Technology (AS)
 - Engineering Technology (certificate)
- Diesel/Clean Diesel Technology
 - Clean Diesel Hybrid Technology (certificate)
 - Clean Diesel Management Systems (certificate)
 - Clean Diesel Technology (certificate)
 - Diesel Technology (AS)
 - Diesel Technology (certificate)
 - Preventive Maintenance (certificate)
- Electronics Technology
 - Advanced Electronics and Telecommunications (certificate)
 - Basic Electronics and Telecommunications (certificate)
 - Basic Mechatronics (certificate)
 - Biomedical Equipment Technology (certificate)
 - Digital Home Technology Integration (certificate)
 - Digital Repair and Upgrade Technician (certificate)
 - Electronic Systems Technology (AS)
 - Electronic Systems Technology (certificate)
 - Fiber Optics (certificate)
 - Mechatronics (AS)
 - Mechatronics (certificate)
 - Robotics (certificate)
 - Solar Energy Systems Design, Estimation, and Sales (certificate)
 - Solar Energy Technology (certificate)
 - Telecommunication Specialist (certificate)
- Engineering
 - Civil Engineering (AS)
 - Electrical Engineering (AS)
 - Mechanical Engineering (AS)
- Welding
 - Gas Metal Arc and Flux Core Arc Welding Plate (252 hours) (certificate)
 - Gas Tungsten Arc Plate and Pipe Welding (180 hours) (certificate)
 - Pipe Welding (certificate)
 - Shielded Metal Arc Plate and Pipe (270 hours) (certificate)
 - Welding Equipment Maintenance and Blueprint Interpretation (234 hours) (certificate)
 - Welding Metallurgy and Inspection (270 hours) (certificate)
 - Welding Technology (AS)
 - Welding Technology (certificate)

Appendix B

Top 10 Programs in Each Area of Interest (based on 2016-17 awards) Plus Remaining ADTs

Arts

1. Introductory Baking (certificate)
2. Hospitality Management: Culinary Arts/Restaurant Management (AA)
3. Art New Media (AA)
4. Art (AA)
5. Culinary Arts/ Restaurant Management (certificate)
6. Studio Art (AAT)
7. Floristry (certificate)
8. Commercial Music: Recording (AA)
9. Fashion Design (AA)
10. Art History (AAT)

Language and Communication

1. Communication Studies (AAT)
2. ASL-English Interpreter Preparation Program (AA)
3. Speech-Language Pathology Assistant Program (AS)
4. Journalism and Mass Communications (AAT)
5. English (AAT)
6. Healthcare Interpreting (certificate)
7. ASL-English Interpreter Preparation Program (certificate)
8. Deaf Culture and American Sign Language Studies (AA)
9. Spanish (AAT)
10. Deaf Culture and American Sign Language Studies (certificate)

People, Culture and Society

1. Psychology (AAT)
2. Associate Teacher (certificate)
3. Psychology (AA)
4. Sociology (AAT)
5. History (AAT)
6. Early Childhood Education (AST)
7. Anthropology (AAT)
8. Early Childhood Education (AA)
9. Anthropology (AS)
10. Teacher (certificate)

Science, Technology, Engineering and Mathematics

1. Mathematics (AST)
2. Computer Science (AS)
3. Mathematics (AS)
4. Biotechnology (AS)
5. Physics (AST)
6. Environmental Conservation (AS)
7. Biotechnology (certificate)
8. Environmental Conservation (certificate)
9. Environmental Conservation Technician (7 certificates)

Business, Hospitality and Recreation

1. Business Administration (AST)
2. Accounting (AA)
3. Introductory Baking (certificate)
4. Legal Assisting (AA)
5. Hospitality Management: Culinary Arts/Restaurant Management (AA)
6. General Business (AA)
7. Legal Assisting (certificate)
8. Small Business Management (AA)
9. Culinary Arts/ Restaurant Management (certificate)
10. Hospitality Management: Restaurant Management (certificate)

Health, Human Services and Well Being

1. Registered Nursing (AS)
2. Funeral Service Education (AS)
3. Emergency Medical Technician (EMT) (certificate)
4. Speech-Language Pathology Assistant Program (AS)
5. Kinesiology (AAT)
6. Human Services (AA)
7. Chemical Dependency Studies (AA)
8. Respiratory Care (AS)
9. Healthcare Interpreting (certificate)
10. Human Services (certificate)

Public Service and Education

1. Registered Nursing (AS)
2. Associate Teacher (certificate)
3. Administration of Justice (AS)
4. Emergency Medical Technician (EMT) (certificate)
5. Early Childhood Education for Transfer (AST)
6. Administration of Justice (AST)

7. ASL-English Interpreter Preparation Program (AA)
8. Early Childhood Education (AA)
9. Teacher (certificate)
10. Respiratory Care (AS)

Applied Technology and Digital Art

1. Advanced Electronics and Telecommunications (certificate)
2. Fiber Optics (certificate)
3. CIS: Computer Programming (AS)
4. Electronic Systems Technology (AS)
5. Gas Tungsten Arc Plate and Pipe Welding (180 hours) (certificate)
6. Shielded Metal Arc Plate and Pipe (270 hours) (certificate)
7. Computer Science (AS)
8. Basic Electronics and Telecommunications (certificate)
9. Art New Media (AA)
10. Electronic Systems Technology (certificate)

Manufacturing, Construction and Automotive Technology

1. Diesel Technology (certificate)
2. Advanced Electronics and Telecommunications (certificate)
3. Fiber Optics (certificate)
4. Electronic Systems Technology (AS)
5. Gas Tungsten Arc Plate and Pipe Welding (180 hours) (certificate)
6. Shielded Metal Arc Plate and Pipe (270 hours) (certificate)
7. Basic Electronics and Telecommunications (certificate)
8. Electronic Systems Technology (certificate)
9. Air Conditioning Service (certificate)
10. Telecommunications Specialist (certificate)

ADTs:

- Biology AS-T
- Economics AA-T
- Elementary Teacher Education AA-T
- Geography AA-T
- Geology AS-T
- Music AA-T
- Nutrition and Dietetics AS-T
- Philosophy AA-T
- Political Science AA-T
- Theatre Arts AA-T

Appendix C

Work Plan and Timeline Diagram



Project Title: **Clarify Program Paths**

Project Start Week: 9/10/18

				WEEK BEGINNING ON																																	
ACTIVITY	PLANNED START	PLANNED END	WEEKDAYS	9/10	9/17	9/24	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	12/3	12/10	12/17	12/24	12/31	1/7	1/14	1/21	1/28	2/4	2/11	2/18	2/25	3/4	3/11	3/18	3/25	4/1	4/8	4/15	4/22	4/29
Finalize Areas of Interest & Top 10	9/10/18	9/14/18	5																																		
Organize Sub-Teams	9/14/18	9/28/18	11																																		
Create Proposal for New Committee	9/24/18	10/18/18	19																																		
Work with A.S. to Create New Cmte	10/18/18	11/15/18	21																																		
Revise Roadmap PDF Format	9/14/18	9/28/18	11																																		
Get Approved Maps into PDF Format	9/28/18	10/18/18	15																																		
Counselors Review PDF Roadmaps	10/18/18	10/26/18	7																																		
Update PDF Maps Upon Review	10/26/18	10/29/18	2																																		
Achieve Students Review PDF Maps	10/29/18	11/16/18	15																																		
Update PDF Maps Upon Review	11/16/18	11/22/18	5																																		
Determine Software Specs/Options	9/28/18	11/16/18	36																																		
Draft Midyear Status Report	11/16/18	11/23/18	6																																		
Define Map Connections with Catalog	9/10/18	2/1/19	105																																		
Ongoing Website Implementation	9/10/18	3/31/19	145																																		
Ongoing New Roadmap Creation	9/10/18	3/31/19	145																																		
Ongoing Interface with GP Implementation	9/10/18	3/31/19	145																																		
Draft Final Status Report	3/1/19	3/31/19	21																																		
Deliverables Approval	4/2/19	5/15/19	32																																		

Appendix D

Examples of PDF Program Roadmaps

Version 1.0 of program roadmaps are PDF files that will be available to students and staff on the new college website. There are generally four types of roadmap:

- certificates
- local CTE degrees
- local transfer degrees
- associate degrees for transfer (ADTs)

An example of each is included in this appendix.

All roadmaps have two things – a suggested sequence of courses and a set of notes. Career-oriented program roadmaps have career options and may have advising notes, scheduling notes, and other notes. Transfer-oriented program maps have potential transfer majors and career options after completion of a bachelor's degree, and may have advising notes, scheduling notes, and other notes for students preparing to transfer.



Legal Assisting certificate

**FULL
TIME**

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability.

Catalog: 2019-20
Total Units: 30 Units
Start Term: Summer

FIRST YEAR

Semester 1 (SUMMER): 3 units

CAT.	COURSE	TITLE	UNIT	NOTES
Req	LA 300	Introduction to Law and the American Legal System	3	

Semester 2 (FALL): 12 units

Req	LA 312	Torts and Personal Injury	3	
Req	LA 320	Legal Research	3	
RE	LA 342	Evidence	3	
Req	LA 350	Law Office Management	3	

Semester 3 (SPRING): 15 units

Req	LA 310	Civil Procedures and Litigation	3	
Req	LA 314	Contract Law	3	
Req	LA 321	Legal Writing	3	
RE	LA 360	Corporations Law	3	
RE	LA 362	Estate Planning and Probate Procedure	3	

Career Options:

Legal assistants find employment in both state and federal government as well as private practice and corporate settings.

Scheduling Notes:

- LA 300, 320, and 321 are offered online.
- LA 300, 320, and 321 are offered in the fall, spring, and summer.
- LA 312, 330, 332, 342, 350 and 368 are offered in the fall.
- LA 310, 314, 322, 334, 360, and 362 are offered in the spring.
- This program can be started in spring and fall as well. See a counselor to adjust the coursework.

Note: Students must possess an A.A. degree or higher from a regionally accredited institution to be eligible for this certificate.

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this certificate
RE	Restricted Elective	A course selected from a list of elective courses specified for this certificate in the course list in the catalog, which can be replaced with another course from the same list
Elec	Elective	A course that is not part of this certificate but is included on its roadmap



Geographic Information Systems (GIS) A.S. degree

**FULL
TIME**

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability.

Catalog: 2019-20
GE pattern: local AA/AS
Total Units: 62.5 Units
Start Term: Fall

FIRST YEAR

Semester 1 (FALL): 17 units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	GEOG 330	Introduction to Geographic Information Systems	3	IIb
Req	GEOG 334	Introduction to GIS Software Applications	3	
Req	GEOG 360	Database Design and Management in GIS	3	
GE	ENGWR 300/480 ^H	College Composition	3	IIa, WC
GE	MATH 120	Intermediate Algebra	5	MC

Semester 2 (SPRING): 16 units

GE	GEOG 331	Exploring Maps and Geographic Technologies	3	IV
Req	GEOG 340	Cartographic Design for GIS	3	
Req	GEOG 344	Spatial Analysis and Modeling in GIS	3	
Req	GEOG 375	Introduction to GIS Programming	3	
GE	SPEECH 321	Interpersonal Communication	3	IIIb
GE		any PE activity course	1	IIIa

^H Honors Courses

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this degree
GE	General Education	A course that fulfills a specific general education requirement for this degree, which can be replaced with another course that meets the same requirement
RE	Restricted Elective	A course selected from a list of elective courses specified for this degree in the course list in the catalog, which can be replaced with another course from the same list
Elec	Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree

Graduation Requirement

A course that fulfills a specific graduation requirement which can be replaced by another course that meets the same graduation requirement.

MC = Math Competency

WC = Writing Competency

Career Options:

We prepare our students for careers as GIS Specialists, Technicians, and Analysts. Many students enter the program with expertise in a different field, such as biology, geology, public health, or archaeology, and augment their expertise with GIS skills learned in our program.

Our graduates work primarily for government agencies including the Cities of Sacramento, Roseville, and Folsom; State of California agencies including Fish and Wildlife, Water Resources, and Department of Health; county agencies including the Counties of Sacramento, Yolo, and El Dorado; federal agencies including Environmental Protection, Geological Survey, and National Parks; and public safety agencies including Fire, Police, and Emergency Services. Other employers include engineering, archaeological, and consulting firms.

Scheduling Notes:

- All classes begin at 6:00 PM, except GEOG 330 which is offered at 6:00 PM and 1:00 PM.
- GEOG 342, 350, 360, and 385 are offered only in the fall.
- GEOG 354, 362, and 375 are offered only in the spring.
- GEOG 498 is usually offered during the summer.
- GEOG 375 and 498 are offered online.



SECOND YEAR

Semester 3 (FALL):

15 units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	GEOG 342	Introduction to Remote Sensing and Digital Image Processing	3	
Req	GEOG 350	Data Acquisition in GIS	3	
Req	GEOG 385	Introduction to Web Based GIS Application Development	3	
GE	ART 320	Design: Fundamentals	3	Va
GE	HIST 311/484 ^H	History of the United States	3	

Semester 4 (SPRING):

14.5 units

Elec	GEOG 300	Physical Geography: Exploring Earth's Environmental Systems	3	
GE	GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes	3	VI
GE	GEOG 320	World Regional Geography	3	Vb
Req	GEOG 354	Introduction to the Global Positioning System (GPS)	1.5	
Req	GEOG 362	Advanced Database Design and Management in GIS	3	
Req	GEOG 498	Work Experience in Geography	1	

^H Honors Courses

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this degree
GE	General Education	A course that fulfills a specific general education requirement for this degree, which can be replaced with another course that meets the same requirement
RE	Restricted Elective	A course selected from a list of elective courses specified for this degree in the course list in the catalog, which can be replaced with another course from the same list
Elec	Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree

Graduation Requirement

A course that fulfills a specific graduation requirement which can be replaced by another course that meets the same graduation requirement.

MC = Math Competency

WC = Writing Competency



Psychology A.A. degree

**FULL
TIME**

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability.

Catalog: 2019-20
GE pattern: local AA/AS
Total Units: 60 Units

FIRST YEAR

Semester 1:

16 units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	PSYC 300/480 ^H	General Principles	3	Vb
Req	PSYC 330	Introductory Statistics for the Behavioral Sciences	3	Iib, MC
GE	ENGWR 300/480 ^H	College Composition	3	Ila, WC
GE	HCD 310	College Success	3	IIIb
GE	ART 300	Drawing and Composition I	3	I
GE		any PE activity course	1	IIla

Semester 2:

15 units

Req	PSYC 335	Research Methods in Psychology	3
RE	PSYC 356 ^I	Human Sexuality	3
Elec	ENGWR 302/482 ^H	Advanced Composition and Critical Thinking	3
Elec	TA 300	Introduction to the Theatre	3
Elec	PHIL 310	Introduction to Ethics	3

^I or PSYC 305, 320, 340, 342, 354, 370, 373, 390, or 481

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this degree
GE	General Education	A course that fulfills a specific general education requirement for this degree, which can be replaced with another course that meets the same requirement
RE	Restricted Elective	A course selected from a list of elective courses specified for this degree in the course list in the catalog, which can be replaced with another course from the same list
Elec	Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree

Graduation Requirement

A course that fulfills a specific graduation requirement which can be replaced by another course that meets the same graduation requirement.

MC = Math Competency

WC = Writing Competency

Potential Transfer Majors:

Psychology B.A.

Potential Career/Options After Completing a Bachelor's Degree:

The [American Psychological Association website](#) includes a long list of potential careers after completing a Bachelor's degree.

Advising Notes:

- Students are assumed to be ready for PSYC 330 by the first semester.

Scheduling Notes:

- The following courses are typically offered online: ENGWR 300, ENGWR 302, HIST 310, POLS 301, PSYC 300, PSYC 320, PSYC 330, PSYC 356, PSYC 370 and PSYC 373.
- PSYC 311 is currently only offered on Thursday evening.
- PSYC 342 is currently offered once every two years. Next offering is in spring 2019.
- PSYC 361 is currently only offered once every two years. Next offering is anticipated to be spring 2020.
- The following courses are typically offered in the evening: ART 300, ENGWR 300, ENGWR 302, GEOG 300, HCD 310, HIST 310, POLS 301, PSYC 300, PSYC 310, PSYC 311, PSYC 330, PSYC 335, PSYC 400, and SPEECH 301.
- The following courses are typically offered in the summer: ART 300, ENGWR 300, ENGWR 302, HCD 310, HIST 310, GEOG 300, PE activity courses, PHIL 310, POLS 301, PSYC 300, PSYC 330, SPEECH 301, and TA 300.



SECOND YEAR

Semester 3:

14 units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	PSYC 310	Biological Psychology	3	IV
Elec	PSYC 311	Biological Psychology Lab	1	
RE	PSYC 373 ²	Child Psychology	3	
Elec	SPEECH 301	Public Speaking	3	
GE	HIST 310/483 ^H	History of the United States	3	Va
Elec		any PE activity course	1	

Semester 4:

15 units

Elec	PSYC 354 ³	The Psychology of Family Life and Intimate Relationships in a Diverse Society	3	
Elec	PSYC 365/ HSER 330	Issues of Diverse Populations	3	VI
Elec	PSYC 400/ HSER 340	Introduction to Chemical Dependency	3	
Elec	GEOG 300	Physical Geography: Exploring Earth's Environmental Systems	3	
Elec	POLS 301/481 ^H	Introduction to Government: United States	3	

² or PSYC 320 or 370, if not already taken

³ or any other PSYC course not taken already

Other Notes to Students Preparing to Transfer:

- Students who meet the eligibility criteria for ARC Psi Beta (Psychology Honors Club) are encouraged to join in their second semester.
- All students who are interested in Psychology should consider joining the ARC NAMI/Life is Worth the Walk Club.
- PSYC 365/HSER 330 meets the CSUS *Race and Ethnicity in American Society* graduation requirement.
- The combination of HIST 310/483 and POLS 301 meets the CSU *American Institutions* graduation requirement.
- See [ASSIST.ORG](https://assist.org) for the transfer requirements of the institution to which you plan to transfer.
- The UC system requires proficiency in a language other than English equivalent to two years of high school study. See a counselor about fulfilling this requirement.

Honors Courses (^H):

Students with a cumulative GPA of 3.2 or better who complete 15 or more units of Honors coursework earn an Honors Transfer Certificate and can take advantage of honors-to-honors transfer agreements with highly selective colleges and universities, both public and private.

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for the degree or certificate
GE	General Education	A course that fulfills a specific general education requirement for a degree, which can be replaced with another course that meets the same requirement
RE	Restricted Elective	A course selected from a list of elective courses specified for this degree in the course list in the catalog, which can be replaced with another course from the same list
Elec	Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree

Graduation Requirement

A course that fulfills a specific graduation requirement which can be replaced by another course that meets the same graduation requirement.

MC = Math Competency

WC = Writing Competency



Business Administration AS-T degree

**FULL
TIME**

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability.

Catalog: 2019-20
GE pattern: CSU GE Breadth
Total Units: 63 Units

FIRST YEAR

Semester 1:

16 units

CAT.	COURSE	TITLE	UNIT	GE AREA
RE	BUS 300	Introduction to Business	3	
GE	ENGWR 300/480 ^H	College Composition	3	A2
GE	HCD 310	College Success	3	E
Req	ECON 302	Principles of Macroeconomics	3	D
RE	STAT 300	Introduction to Statistics and Probability	4	B4

Semester 2:

15 units

Elec	BUS 320/ECON 320	Concepts in Personal Finance	3	
Req	ECON 304	Principles of Microeconomics	3	D
Req	ACCT 301	Financial Accounting	4	
RE	CISA 308	Exploring Word Processing and Presentation Software	1	
RE	CISA 318	Exploring Spreadsheet Software	1	
Elec	MATH 340	Calculus for Business and Economics	3	

Potential Transfer Majors:

Business Administration B.S.

possible concentrations:

- Marketing
- General Management
- Finance
- Entrepreneurship
- Accountancy
- International Business
- Management Information Systems
- Management of Human Resources

Potential Career/Options After Completing a Bachelor's Degree:

Career opportunities include accountancy, insurance, advertising, banking, financial services & investments, management, human resources, retail management, sales & marketing, supply chain management, and marketing research.

Scheduling Notes:

- Many of the course in the degree are available online.

Other Notes to Students Preparing to Transfer:

- HIST 311/484 meets part of the CSU *American Institutions* graduation requirement.
- TAFILM 307 meets the CSUS *Race and Ethnicity in American Society* graduation requirement.
- Both STAT 300 and MATH 340 are required by many institutions.
- See [ASSIST.ORG](https://assist.org) for the transfer requirements of the institution to which you plan to transfer.
- The UC system requires proficiency in a language other than English equivalent to two years of high school study. See a counselor about fulfilling this requirement.

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this degree
GE	General Education	A course that fulfills a specific general education requirement for this degree, which can be replaced with another course that meets the same requirement
RE	Restricted Elective	A course selected from a list of elective courses specified for this degree in the course list in the catalog, which can be replaced with another course from the same list
Elec	Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree



SECOND YEAR

Semester 3:

16 units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	BUS 340	Business Law	3	
Req	ACCT 311	Managerial Accounting	4	
GE	HIST 311/484 ^H	History of the United States	3	D
GE	SPEECH 361	The Communication Experience	3	A1
GE	ENGWR 302/482 ^H	Advanced Composition and Critical Thinking	3	A3

Semester 4:

16 units

GE	PHIL 310	Introduction to Ethics	3	C2
GE	GEOG 300	Physical Geography: Exploring Earth's Environmental Systems	3	B1
GE	GEOG 301	Physical Geography Laboratory	1	B3
GE	ANTH 300/480 ^H	Biological Anthropology	3	B2
GE	TAFILM 307	Diversity in American Film	3	C1
GE	ARTNM 305	History of Graphic Design	3	C1

Honors Courses (^H):

Students with a cumulative GPA of 3.2 or better who complete 15 or more units of Honors coursework earn an Honors Transfer Certificate and can take advantage of honors-to-honors transfer agreements with highly selective colleges and universities, both public and private.

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this degree
GE	General Education	A course that fulfills a specific general education requirement for this degree, which can be replaced with another course that meets the same requirement
RE	Restricted Elective	A course selected from a list of elective courses specified for this degree in the course list in the catalog, which can be replaced with another course from the same list
Elec	Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree

Appendix E

Initial Specifications for Atlas

Overview of Atlas

What Atlas is:

Atlas is a collection of program maps, a tool for creating and maintaining those maps, and a means of sharing approved maps with students and the public via the college websites. The maps in Atlas are designed to help students explore their options, showing them what it takes to complete a program of study in a reasonable amount of time and providing helpful information like potential transfer majors and careers. The maps are not intended to be default educational plans. Students will still need to work with counselors to create educational plans that are tailored to their individual needs.

Atlas is designed to automate the map creation and maintenance process, making it as easy as possible for users to enter maps, for reviewers to check and approve maps, and for college-level Atlas administrators to publish maps to their college websites.

Atlas will be shared across the district but each college will have its own version which can be customized, to a point, to meet each individual college's needs. Ongoing collaboration will be required to ensure that Atlas works for users at all four colleges.

What Atlas isn't:

Atlas is not an educational planning tool. The district will be using *Highpoint Degree Planner* for educational planning purposes. Maps displayed to students will show them their options, but students will not be able to alter the maps to create an educational plan.

Atlas is not a degree audit tool. Maps created in Atlas will need to be checked by people who understand curriculum and graduation requirements.

Atlas is not a career exploration tool. While maps may contain career information, students should be referred to other sources of labor market and career information such as *Career Coach* and *Salary Surfer*.

Versions:

1. Internal tool for creating maps (estimated completion May 2019):
 - a. no workflow or permission levels
 - b. used by a small group to enter program map information into the Atlas database
2. Displaying maps on college websites (estimated completion July 2019)
 - a. HTML display of approved maps, with printable map option

3. Collegewide tool for creating, maintaining, and publishing maps (estimated completion January 2020)
 - a. includes user permissions and map approval workflow
 - b. includes processes for updating maps when a new catalog is published
4. Collaboration tool
 - a. includes the ability to share maps with other users while they are being developed
 - b. users can add comments to other users' maps

*Note: the completion dates depend on the pace of districtwide collaboration on the Atlas specifications.

Atlas Version 1.0 – Internal Tool for Creating Program Maps

Version 1.0 is designed to be used by a small team at the college to enter program map information into Atlas. Anyone can log in with their w-id and create maps, so the link to Atlas must not be shared outside the team. Atlas will have two roles, user and college-level Atlas administrator, and map creation and publication will be a manual process.

Atlas Roles and Associated Rights

All users of Atlas must log in using their w-id. Atlas will check their w-id against a list to determine the appropriate role. All logged-in users default to the *User* role if they are not found in the list.

User: a person who can view, edit, and create maps.

- can create a *draft* map for any program
- can view their own maps at any status
- can delete their own maps at *draft* status

College-Level Atlas Administrator: oversees Atlas for each college, including publishing maps so they are available on the college website.

- has the same access as any user
- can view all maps at any status
- can edit maps that are at *draft* status
- can change the status of any map and delete any map at any status
- maintains the special tags
- maintains the honors course equivalency list
- maintains the cross-listed courses list
- maintains approved placeholders for courses
- can edit the default values for year and semester labels, and any other college-specific settings in Atlas
- can publish all approved maps or individual approved maps

Program Map Status Levels

Draft: a private version of a map while it is being developed by a user

- only visible to the user that created it and the college-level Atlas administrator
- can be edited by the user that created it or by the college-level Atlas administrator

Published: an approved map that is published on the college website

- visible to all Atlas users and to students
- locked – cannot be edited
- has a publication date associated with when its status changed

Deleted: a map that was deleted by the user creating it or a college-level Atlas administrator

- not visible to anyone
- locked – cannot be edited

Process for Creating Program Maps

1. Users log into the Atlas site for their college.
2. After logging in, users have the option to create a new map or manage existing maps.
3. To work on a draft map that was created previously, users select “manage maps” then select the map they want to edit.
4. To create a new map, users select “new map” then select the type of map (certificate, AA, AS, AA-T, AS-T). Users then select a specific program from a list, and can give the map a nickname, which is helpful if they are creating more than one map for a program.
 - a. For ADTs, users must specify the GE pattern (CSU or IGETC).
 - b. For AA/AS degrees, users must specify whether the map is for career or transfer purposes.
5. For new maps, Atlas displays the course list on the right-hand side and an empty course sequence on the left-hand side. For existing maps or cloned maps, Atlas displays the course list and course sequence as they were when the map was last saved.
6. Users can add semesters (up to 3) in each year and can add a year (up to 4) to the course sequence. Users can also add a “pre-enrollment” year to the sequence for programs (like Nursing) that require that certain courses must be taken prior to admission.
7. Users can edit the name of each year and each semester. The default name for the pre-enrollment year is “Prior to Enrolling in the Program” and the default name of its first semester is “Prerequisite Courses.” The default names for regular years will be “Year 1,” “Year 2,” “Year 3,” and “Year 4.” The default names for regular semesters will be “Semester 1,” “Semester 2,” and so on.
8. Users drag courses from the course list to the sequence to create a suggested sequence for the map. As this happens, Atlas updates the unit totals in the sequence and in the course list. Users can also drag courses from one semester in the sequence to another, or back to the course list.
 - a. For cross-listed courses in an OR block or a set of restricted electives, Atlas treats them as a single course.
 - b. For honors courses in an OR block or a set of restricted electives, Atlas treats them as a single course.

- c. For other courses in an OR block, when they are dropped onto the course sequence Atlas prompts for the user to select which one to use.
 - d. For variable-unit courses, when they are dropped onto the course sequence, Atlas prompts for the user to select a unit value.
 - e. Repeatable courses will be removed from the course list after being moved to the course sequence. Users will need to use the course search feature to add another instance of a repeatable course to the course sequence.
- 9. Users can add a numbered footnote to a course in the sequence. The numbers and footnote text are entered manually, since multiple courses can share a footnote and courses can have more than one footnote. Footnotes within a given year in the sequence will be displayed below that year.
- 10. Users can add general notes to a year in the sequence, and the general notes will be displayed below that year, after any numbered footnotes.
- 11. Users can search for a course to add to the sequence using the “course search” button.
- 12. Users can add a generic placeholder for a course, such as “any PE activity course” or “IGETC area 5A,” from a list of approved placeholders. Placeholders are identical to courses (have GE approvals, units, descriptions, footnotes, etc.) but represent a collection of possible courses.
- 13. For degrees, Atlas displays buttons for each GE requirement across the top. When a course that meet a specific GE requirement is added to the sequence, the button for that requirement changes colors so users can see which GE areas still need to be addressed. Users can click on a GE button to search for courses that meet its GE requirement.
- 14. Users can click on the “map notes” button to add notes to a map.
 - a. Certificates and local degrees have “career options,” “advising notes,” “scheduling notes,” and “other notes.”
 - b. ADTs and transfer-oriented local degrees have “transfer majors,” “careers after completing a bachelor’s degree,” “advising notes,” “scheduling notes,” and “other notes.”
- 15. Users can click on the “map details” button to view and edit the details of the map.
 - a. Users can set the enrollment type (full-time or part-time).
 - b. Users can set a start term for the map (default = “none”, other options: “fall,” “spring,” and “summer”). This will trigger Atlas to edit the labels of the semesters.
 - c. Users can add an emphasis or specialization label to a map, which will be added to its title when displayed.
 - d. Users can select a special tag from a list of approved tags, which will be displayed on the map to indicate how it is different than other maps for the same program. Examples include “1 year,” “2 year,” “3 year,” “evenings,” “weekends,” “daytime,” “online,” “fully online.”
- 16. Users can review which courses are marked as required, restricted elective (RE), general education (GE), and elective in the course sequence. If needed, users can override those settings. If a course is switched to be a restricted elective, it must appear in one of the restricted elective lists so that list can be associated with the course. If a course is switched to GE, it must meet a GE requirement for the degree so that GE requirement can be associated with the course.
- 17. For degrees, users can review a list of all of the courses in the course sequence that meet GE requirements. If there are more courses that meet a GE requirement than needed, users select which courses will be marked as meeting the GE requirement and which won’t. For AA/AS degrees, users also identify which courses meet the math and writing graduation requirements.
 - a. For degrees any non-required, non-RE GE courses that are not marked as meeting a GE area will be marked as being elective courses.

18. Any elective courses in a certificate must have a statement, which will be displayed to students, indicating why they are included in the map.
19. Elective courses in degrees will have a default statement indicating they are in the map to get the unit total up to 60, which will be displayed to students. Users can override that statement for courses that are included for other reasons.
20. Map information will be automatically saved at certain stages, but users can save their work at any time by clicking on the “save” button.
21. Users can preview their maps to see the course sequence and notes in the same place. The preview will display the last saved version of a map as a simple black-and-white view of the course sequence and notes.

Processes for Approving and Publishing New Maps

1. Users develop *draft* maps. When they feel the maps are ready for approval, they let the college-level Atlas administrator know.
2. The college-level Atlas administrator, as well as a team of other reviewers, checks that the maps conform to the college’s design guidelines and transfer/graduation requirements.
 - a. Each member of the team may have a different focus, such as consistent and clear language in the notes, difficulty of each semester, course sequence makes sense, etc.
3. The college-level Atlas administrator monitors the review process and deals with issues as they arise.
4. When a map has been approved by the team of reviewers, the college-level Atlas administrator sets the map status to *published*.

Atlas Version 2.0 – Displaying Program Maps to Students

Each college is unique and will display program maps on their websites in different formats. Atlas version 2.0 should be flexible to accommodate this.

ARC

ARC calls their program maps “roadmaps.” Currently, roadmaps are static PDF files that will be available to students via links on the college website and as printed handouts in Counseling and division offices.

When the new college website is rolled out, roadmaps will be displayed in HTML, allowing them to be more interactive. They will be connected to the Atlas database so they can dynamically display real-time data. When a student clicks on a roadmap, it will initially display the same information as seen in a PDF roadmap. When a student clicks on one of the courses in the suggested sequence, course information will be displayed on the side (the same information available in the catalog).

- For required courses, it will tell the student that the course is required for that program.

- For restricted electives or courses in an OR block, it will display a list of the other options. A student can click on one of the other options to see information for that course.
- For general education courses, it will explain that any course in that GE area can be substituted and provide a link to a GE search tool so that a student can explore the other options.
- For elective courses in degrees used to get the unit total to 60, it will explain that any other degree-applicable course can be used as long as the units add up to at least 60.
- For elective courses in certificates and degrees that were added for another reason, such as a hidden prerequisite or a recommended CPR/First Aid course, it will explain why that course was included in the roadmap when it is not required for the program.

HTML roadmaps will have a “print” button that displays a printer-friendly view.

In the future, version 2.0 of roadmaps could also provide links to the catalog listing of the program as well as to salary and labor market information in Career Coach or Salary Surfer. Students will also be able to check off courses that they have already completed, which will cause the appearance of the course in the roadmap to change, so students can see what they have left to complete.

Roadmaps will not be an educational planning tool, since the district has purchased the *HighPoint Degree Planner* tool for that purpose. Students will be able to explore their options, as described above, but they will not be able to customize the roadmap to create a personalized education plan.

Implications for the Employee-Facing Part of Atlas:

- When users are creating maps in Atlas, they must be using the current catalog and the map must be identified with the current catalog year. Users cannot create maps for previous or future catalogs because the course and program information may not be the same.
- Required courses must be marked as such when maps are being created, so that information can be displayed to students.
- Restricted elective (RE) courses must have a connection to the list of other option so they can be displayed to students, which means the entire restricted elective list must be associated with each RE course in the course sequence.
- Courses in the sequence that are included to meet a particular general education (GE) requirement must be associated with the appropriate GE pattern and area so other courses meeting the same requirement can be displayed to students.
- Elective courses in a sequence that are included to get the total units in a degree to 60 must be marked as such when maps are being created, so that information can be displayed to students.
- Elective courses in a sequence that are included for another reason must be marked as such when maps are being created, so that information can be displayed to students.

Atlas Version 3.0 – Collegewide Tool for Creating, Maintaining, and Publishing Program Maps

In version 3.0, user rights and permissions will be implemented, allowing the entire college to have access to Atlas. Atlas will also have a review and publishing workflow so that maps can be checked for accuracy and completeness before being published to the college website. And, Atlas will have a process for updating maps annually, when the catalog is published.

Atlas Roles and Associated Rights

All users of Atlas must log in using their w-id. Atlas will verify that the w-id belongs to a district employee (not a student), then check their w-id against a user rights table. All logged-in employees default to the *User* role if they are not found in the user rights table. Others are not allowed access to the employee-facing part of Atlas. They must view maps using the college website.

User: an employee who can view, edit, and create maps, and who can view certain reports.

- can create a *draft* map for any program
- can view their own maps at any status
- can delete their own maps at *draft* status
- can submit a *draft* map for review
- can view certain reports

Map Mentor: a user who can help other users create maps.

- has the same access as any user
- can view and edit any *draft* maps assigned to them by a college-level administrator, and submit them for review on behalf of the users that created them

Reviewer: a user who reviews submitted maps to make sure they meet the college's design guidelines for maps and also meet graduation/transfer requirements.

- has the same access as any user
- can see a list of maps that are at *review* status, with an indicator of the ones the reviewer has reviewed and still needs to review, with a vote tally
- can run a review check on any map at *review* status, which checks for common issues (prerequisites out of sequence, unit totals wrong, missing GE requirements, etc.)
- can add a vote to maps that are at *review* status (approved, not approved)
- can add a review note to maps that are at *review* status
- can view the individual votes for maps that are at *review* status

Lead Reviewer: the reviewer who tallies votes, resolves issues, and approves submitted maps for the college.

- has the same access as any reviewer
- can view and edit maps that are at *review* status (intent is to correct errors, working with the user that created the map)

- can change the status of maps that are at *review* status back to *draft* status so the user that created them can work on them (for maps that have major issues)
- can change the status of maps that are at *review* status to *approved* status once all of the reviewers have voted (for maps that have been approved by the review team)
- can clear individual review notes and votes on a map at *review* status if an issue that was raised by a reviewer has been addressed

College-Level Atlas Administrator: oversees Atlas for each college, including publishing maps so they are available on the college website.

- has the same access as a lead reviewer
- can change the role of any user to anything other than system-level administrator
- can view all maps at any status
- can view all reports
- can change the status of any map and delete any map at any status
- can change the developer of any map at *draft* status
- can assign a map mentor to any *draft* map
- can un-assign a map mentor from any *draft* map
- maintains the special tags
- maintains the honors course equivalency list
- maintains the cross-listed courses list
- maintains approved placeholders for courses
- maintains a list of department contacts for each program
- can edit the default values for year and semester labels, and any other college-specific settings in Atlas
- can publish all approved maps or individual approved maps

System-Level Atlas Administrator: oversees Atlas for the district.

- has the same access as a college-level administrator, but at all four colleges
- can change the role of any user at any college
- can add a new catalog year
- can update the catalog year that Atlas is working from to build maps

Program Map Status Levels

Draft: a private version of a map while it is being developed by a user

- only visible to the user that created it and the college-level and system-level Atlas administrators
- can be edited only by the user that created it

Review: a map that has been submitted for review but has not been approved

- visible to the user that created it, reviewers, and the college-level and system-level Atlas administrators
- can be edited by the lead reviewer and the college-level and system-level Atlas administrators
- can have review notes attached to it

- can have votes from reviewers attached to it

Approved: a map that has been approved by the review team and is ready for publication but not yet published

- visible to all Atlas users, but not to students
- locked – cannot be edited

Published: an approved map that is published on the college website

- visible to all Atlas users and to students
- locked – cannot be edited
- has a publication date associated with when its status changed

Archived: a previously published map that has been removed from the college website

- visible to all Atlas users, but not to students
- locked – cannot be edited
- has an archive date associated with when its status changed

Deleted: a map that was deleted by the user creating it or a college-level or system-level Atlas administrator

- only visible to college-level and system-level Atlas administrators
- locked – cannot be edited

Process for Creating Program Maps

1. Users log into the Atlas site for their college.
2. After logging in, users have the option to create a new map or manage existing maps.
3. To work on a draft map that was created previously, users select “manage maps” then select the map they want to edit.
4. To create a new map, users select “new map” then select the type of map (certificate, AA, AS, AA-T, AS-T). Users then select a specific program from a list, and can give the map a nickname, which is helpful if they are creating more than one map for a program.
 - a. Users can choose to clone an existing map, if one exists. If this option is selected, Atlas shows the user a list of maps for the program and the user selects the map to clone from. Atlas then copies all of the information from the source map into the new map and loads it as if the user were editing an existing map.
 - b. For ADTs, users must specify the GE pattern (CSU or IGETC).
 - c. For AA/AS degrees, users must specify whether the map is for career or transfer purposes.
5. For new maps, Atlas displays the course list on the right-hand side and an empty course sequence on the left-hand side. For existing maps or cloned maps, Atlas displays the course list and course sequence as they were when the map was last saved.
6. Users can add semesters (up to 3) in each year and can add a year (up to 4) to the course sequence. Users can also add a “pre-enrollment” year to the sequence for programs (like Nursing) that require that certain courses must be taken prior to admission.
7. Users can edit the name of each year and each semester. The default name for the pre-enrollment year is “Prior to Enrolling in the Program” and the default name of its first semester is “Prerequisite

Courses.” The default names for regular years will be “Year 1,” “Year 2,” “Year 3,” and “Year 4.” The default names for regular semesters will be “Semester 1,” “Semester 2,” and so on.

8. Users drag courses from the course list to the sequence to create a suggested sequence for the map. As this happens, Atlas updates the unit totals in the sequence and in the course list. Users can also drag courses from one semester in the sequence to another, or back to the course list.
 - a. For cross-listed courses in an OR block or a set of restricted electives, Atlas treats them as a single course.
 - b. For honors courses in an OR block or a set of restricted electives, Atlas treats them as a single course.
 - c. For other courses in an OR block, when they are dropped onto the course sequence Atlas prompts for the user to select which one to use.
 - d. For variable-unit courses, when they are dropped onto the course sequence, Atlas prompts for the user to select a unit value.
 - e. Repeatable courses will be removed from the course list after being moved to the course sequence. Users will need to use the course search feature to add another instance of a repeatable course to the course sequence.
9. Users can add a numbered footnote to a course in the sequence. The numbers and footnote text are entered manually, since multiple courses can share a footnote and courses can have more than one footnote. Footnotes within a given year in the sequence will be displayed below that year.
10. Users can add general notes to a year in the sequence, and the general notes will be displayed below that year, after any numbered footnotes.
11. Users can search for a course to add to the sequence using the “course search” button.
12. Users can add a generic placeholder for a course, such as “any PE activity course” or “IGETC area 5A,” from a list of approved placeholders. Placeholders are identical to courses (have GE approvals, units, descriptions, footnotes, etc.) but represent a collection of possible courses.
13. For degrees, Atlas displays buttons for each GE requirement across the top. When a course that meet a specific GE requirement is added to the sequence, the button for that requirement changes colors so users can see which GE areas still need to be addressed. Users can click on a GE button to search for courses that meet its GE requirement.
14. Users can click on the “map notes” button to add notes to a map.
 - a. Certificates and local degrees have “career options,” “advising notes,” “scheduling notes,” and “other notes.”
 - b. ADTs and transfer-oriented local degrees have “transfer majors,” “careers after completing a bachelor’s degree,” “advising notes,” “scheduling notes,” and “other notes.”
15. Users can click on the “map details” button to view and edit the details of the map.
 - a. Users can set the enrollment type (full-time or part-time).
 - b. Users can set a start term for the map (default = “none”, other options: “fall,” “spring,” and “summer”). This will trigger Atlas to edit the labels of the semesters.
 - c. Users can add an emphasis or specialization label to a map, which will be added to its title when displayed.
 - d. Users can select a special tag from a list of approved tags, which will be displayed on the map to indicate how it is different than other maps for the same program. Examples include “1 year,” “2 year,” “3 year,” “evenings,” “weekends,” “daytime,” “online,” “fully online.”
16. Users can review which courses are marked as required, restricted elective (RE), general education (GE), and elective in the course sequence. If needed, users can override those settings. If a course is

switched to be a restricted elective, it must appear in one of the restricted elective lists so that list can be associated with the course. If a course is switched to GE, it must meet a GE requirement for the degree so that GE requirement can be associated with the course.

17. For degrees, users can review a list of all of the courses in the course sequence that meet GE requirements. If there are more courses that meet a GE requirement than needed, users select which courses will be marked as meeting the GE requirement and which won't. For AA/AS degrees, users also identify which courses meet the math and writing graduation requirements.
 - a. For degrees any non-required, non-RE GE courses that are not marked as meeting a GE area will be marked as being elective courses.
18. Any elective courses in a certificate must have a statement, which will be displayed to students, indicating why they are included in the map.
19. Elective courses in degrees will have a default statement indicating they are in the map to get the unit total up to 60, which will be displayed to students. Users can override that statement for courses that are included for other reasons.
20. Map information will be automatically saved at certain stages, but users can save their work at any time by clicking on the "save" button.
21. Users can preview their maps to see the course sequence and notes in the same place. The preview will display the last saved version of a map. This view will be similar to what students will see when the map is published. Users can click on courses to see the options or notes displayed to students. There will be a "print" button that displays a printer-friendly view of the map.
22. When users are ready to submit a map for review, they click on the "submit for review" button, which changes the map from *draft* to *review* status and puts the map into the queue for the review team. Once a map has been submitted, it can no longer be edited by the user that created it. It can only be edited by the lead reviewer.

Processes for Approving and Publishing New Maps

1. Users develop *draft* maps. When they feel the maps are ready for approval, they submit the maps for review.
2. Members of the review team monitor the list of maps at review status, looking for new ones they haven't reviewed yet.
3. For each map, a reviewer can run a review check to look for common issues, then preview the map to make sure it conforms to the college's design guidelines and transfer/graduation requirements.
 - a. Each member of the team may have a different focus, such as consistent and clear language in the notes, difficulty of each semester, course sequence makes sense, etc.
 - b. Reviewers can add notes, identifying concerns. They can also see the notes added by other reviewers.
 - c. Reviewers can vote for approving or not approving a map and can see the votes cast by other reviewers.
4. The lead reviewer monitors the review process and deals with issues as they arise.
 - a. For minor issues, the lead reviewer works with the creator of the map to edit the map in order to resolve the issue. Once the issue is resolved, the lead reviewer can clear the review notes and reset the votes, then ask the review team to review the map again.

- b. For major issues, the lead reviewer sets the map status back to *draft* and asks the creator of the map to fix the issue and resubmit the map. At that point, the review notes and votes are cleared and are no longer viewable.
5. When a map has been approved by the review team, the lead reviewer sets the map status to *approved*. At that point, the review notes and votes are cleared and are no longer viewable.
6. When the time comes for publishing approved maps to the college website, the college-level Atlas administrator publishes them and archives the old versions of the maps.

Processes for Updating Existing Maps When a New Catalog is Published

When curriculum gets changed, program maps need to be updated to reflect those changes, which means that program maps must be updated and republished each year at the same time the new catalog is published. This process could be very labor intensive, so it needs to be automated as much as possible.

Curriculum changes that could affect maps:

- course title change – should automatically change in maps that contain the course, so those maps do not need to be checked
- course unit change – should automatically change in maps that contain the course, but those maps should be checked
- course prerequisite or corequisite change – not displayed in maps, but could affect the course sequence, so maps containing the course should be checked
- change in GE or competency approval for a course – could affect maps that contain the course, so those maps should be checked
- course deletion or renumbering – will affect maps that contain the course, so those maps should be checked and updated
- program title change – should automatically change in maps, so those maps do not need to be checked
- program course list change – will not automatically change in maps, so the program's maps need to be updated
- program deletion – maps for the program will no longer be published
- new program – maps for the program need to be created

*Note: we need one or more reports in Socrates that list all of the courses/programs for which these changes occur, organized by catalog year (not by academic year). Those reports do not currently exist and will need to be created. If we cannot get them created in Socrates, we can look into creating them in Atlas.

Proposed processes for keeping program maps updated:

Monitor for changes in curriculum that affect program maps:

A member of the review team (most likely the lead reviewer) monitors for changes to curriculum throughout the year. When a change occurs that affects program maps, this person notes the change and checks whether it affects any existing program maps. This person keeps a running list of affected maps and what needs to be done to fix them.

Annually review and re-publish current program maps:

Once a year, at the start of the spring semester, departments are asked to review all of their program maps. They are provided a list of any curriculum changes that affect their maps, along with suggested edits to address those changes. Departments are also notified of any changes to the college's program map design guidelines. They are given an opportunity to

1. roll over their current maps with no changes, or
2. revise their maps and submit them for review

Since program maps need to reflect the course and program information in the new catalog, this process should occur after the new catalog has stopped being changed by the Curriculum Committee and the source tables in the Atlas database have been updated with the new catalog information. Once that has happened, the college-level Atlas administrator runs a process in Atlas that changes the catalog year to the new one, then creates a cloned copy of each currently published program map, at *draft* status, assigned to a department contact.

Maps with no changes will receive a light review by the review team and re-published. Revised maps will go through the full review process before being re-published. The review process will need to be worked out in greater detail by the Program Paths Committee.

Atlas Version 4.0 – Collaboration Tool

In version 4.0, users will be able to work together on maps. The specifications for this version have not yet been worked out since they will depend significantly on how versions 1.0-3.0 are implemented.

The Atlas Database

Program Map Data

Atlas will store program map information in a relational database. Records will not be deleted. Instead, they will be marked as inactive, which allows them to be recovered in cases of accidental changes or deletions.

Course and Program Source Data (Current Catalog)

It is essential that the course and program data displayed in program maps is identical to the data displayed in the online catalog. There is currently a process being developed to extract course and program information from Socrates into an XML file for Ingeniux to display catalog information on the college and district websites. The process that creates that XML file could also write the same information into tables (source tables) in the Atlas database, which would be the source of course and program information for Atlas when users are creating program maps for the current catalog.

*Note: This needs to be discussed further to determine whether it is feasible.

Course and Program Source Data (Upcoming Catalog)

If users are allowed to make maps for the upcoming catalog (not the current one), Atlas will have to look at the Socrates tables and pull in the most recently catalogued version of a course or program to display to the users. This is risky and needs to be discussed further because the data in Socrates is constantly being updated.

Program Map Publication

Published program maps should always display course and program information from the current catalog, so the source tables in the database need to be updated to the new catalog (once it has stopped changing) prior to publication. As part of the publication process, maps need to be checked for changes in units, course deletions, and other curricular changes that could alter them in a significant way.

Appendix F

Integration of Program Paths into the New College Website

New College Website

ARC has been collaborating on a project with FLC and the district to update all of our websites. The work began prior to ARC's Guided Pathways implementation, and the district and FLC just recently began their Guided Pathways work, so the websites they designed do not fully incorporate Guided Pathways design principles.

The new ARC website is slated to roll out in May, 2019. At the initial roll-out, the website will not fully conform to the recommendations from the Clarify Program Paths team, that

1. the page students use to explore potential majors organizes related programs into areas of interest,
2. students do not have to search through long, alphabetical lists to find programs that interest them, and
3. links to program roadmaps are provided with each program of study.

In the short term the team negotiated the following design, which takes a step toward having the website conform to the design principles proposed by the team.

- The "Programs and Majors" page will be organized alphabetically by catalog department, with an option to filter the long list of catalog departments by areas of interest (see fig. 1).
- There will be a call-to-action icon on the main ARC web page (see fig. 2) that takes students to an "Areas of Interest" page listing each of the nine areas of interest (see fig. 3). Clicking on an area of interest will take students to a page listing the catalog departments that have programs in that area. Clicking on a catalog department will take students to that catalog department's page on the website, where they can learn more about the programs within that catalog department (see fig. 4)
- Instead of linking a program directly to its roadmaps, a link will be provided within each catalog department's page (see fig. 5) taking students to a list of roadmaps for all of the programs offered by that department (see fig. 6).

Since areas of interest group related programs, not catalog departments, this is not the best way for students to find programs that interest them. They will have to search within a catalog department for relevant programs. Fortunately, this situation will be temporary. The team has worked out a long-term design, described below, that will be implemented shortly after the new website has rolled out.

Areas of Interest

The main page used by students to explore the college's programs of study will be organized by area of interest. Students will see the nine areas of interest, with representative images and brief descriptions of each area. Clicking on an area will display all of the programs in that area, grouped by discipline. Clicking on a program will display the program information shown in the catalog as well as links to the program roadmaps for that program. Ideally, career information and information from ASSIST (for transfer programs) will also be displayed on the page to provide students with career and transfer information so they can make an informed choice regarding their major.

Program Roadmaps

For 2019-20, program roadmaps will be provided on the college website as PDF documents. Ideally, links to the roadmaps will be provided on any page where program information is displayed.


For future years, the team recommends having an HTML display of program roadmap content that is more interactive and renders better on mobile devices. The HTML version of roadmaps will allow students to explore their options for elective, restricted elective, and general education courses. See the "Atlas version 2.0" section of appendix E for more details.

Programs and Majors

[ARCHome](#) > [Academics](#) > [Programs and Majors](#)

PROGRAMS OF STUDY


A-Z LISTING



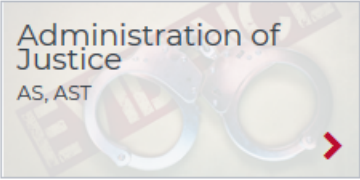
Area of Interest

Degree/Certificate Type


Accounting
AA, CERTIFICATE




Administration of Justice
AS, AST




Anthropology
AAT, AS




Apprenticeships
AA, CERTIFICATE




Art
AA, AAT, CERTIFICATE



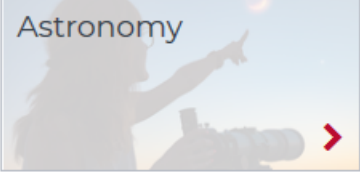
Art New Media
AA, CERTIFICATE




ASL English Interpreter Preparation
AA, CERTIFICATE




Astronomy




Automotive Collision Technology
AS, CERTIFICATE



Automotive Technology
AS, CERTIFICATE



Biology & Biotechnology
AS, AST, CERTIFICATE



Business
AA, AST, CERTIFICATE




Figure 1: The current Programs and Majors page, used by students to explore programs of study, is an alphabetical list of the 77 catalog departments in ARC's catalog. There is a drop-down menu allowing it to be filtered by area of interest.

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[Explore Areas of
Interest](#)

Figure 2: The main page of the website has an “Explore Areas of Interest” call-to-action icon to get students to the Areas of Interest page in one click.


ARC AMERICAN RIVER COLLEGE
LOS RIOS COMMUNITY COLLEGE DISTRICT

STUDENT LOGIN

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AREAS OF INTEREST

Not Ready to Pick a Major? Explore These Areas of Interest to Help You Decide.

Areas of interest are groups of related programs of study organized into themes, to help you find a major that interests you.

<p>ARTS:</p> <p>Do you enjoy expressing yourself through art, music, theatre, or dance? Do you enjoy designing and creating things? Do you like to cook, sew, or take photos? Do you like recording and editing music?</p>	
<p>Language and Communication:</p> <p>Do you enjoy reading or writing? Do you want to learn how to communicate better? Do you want to learn another language or be an interpreter?</p>	
<p>People, Culture and Society:</p> <p>Do you enjoy studying culture, history, or politics? Are you interested in how humans behave and interact? Do you want to learn more about current social issues?</p>	
<p>Science, Technology, Engineering and Mathematics (STEM):</p> <p>Do you enjoy taking things apart to see how they work? Do you like using math to solve problems? Do you like programming computers?</p>	
<p>Business, Hospitality and Recreation:</p> <p>Do you like working with people? Do you enjoy working with financial information? Do you want to own your own business? Do you like managing the details of a special event?</p>	

Figure 3: The Areas of Interest page will have an image and descriptive text for each area.



[Areas of Interest](#) > [Applied Technology and Digital Arts](#)



Do you like hands-on projects and solving real-world problems? Do you enjoy working with computers and electronics? Do you like to design and build things? Do you enjoy using a computer to create 3D designs, drawings, or animations? If so, a major in the area of Applied Technology and Digital Arts might be right for you. Check out the programs we offer in the disciplines listed below.

[Electronics Technology](#)

[Computer Information Science](#) – Programming, Database Management, Security, Support

[Art New Media](#) – Illustration, Graphic Design, 3D Modeling & Animation

[Welding Technology](#)

[Geographic Information Systems \(GIS\)](#)

[Design Technology & Engineering Technology](#)

[Digital Music – Digital Audio Production](#)

[Horticulture](#) – Floristry, Plant Production, Landscape Design

[Biotechnology](#)

[Business Technology](#)

[Business – Computer Applications](#)

[Fashion](#) – Apparel Construction, Patternmaking & Draping

[Natural Resources](#) – Environmental Conservation

[Interior Design](#)

[Journalism](#)

[Art](#) – Freelance Photography

[Theatre Arts](#) – Technical Production

[Work Experience](#)

Figure 4: Each area of interest has a page that lists the catalog departments that have programs in that area of interest, with links to the catalog department page. For catalog departments that have programs in more than one area of interest, additional text is included to help students identify the programs that belong in each area of interest.

Programs and Majors

Course Families

Accounting

[Download PDF](#)

OVERVIEW

DEGREES / CERTIFICATES

COURSES

FACULTY



This degree focuses on preparation for careers in various accounting professions. It develops a common foundation in accounting and business, and provides various courses covering both fundamental and specialized accounting topics to meet individual career goals.

The Accounting certificate provides occupational training and preparation for entry-level clerical and technical positions in various accounting careers. It provides a strong background in fundamental accounting concepts and typical accounting computer applications. In addition, it provides various specialized accounting topics to meet career individual goals.



Get a Roadmap!
Explore ways to complete these programs.

DIVISION DEAN [Kirsten Corbin](#)

DEPARTMENT [Margaret Pollard](#)

CHAIRS [Joel Hallie](#)

 [Business & Computer Science Division](#)

 (916) 484-8361

 LukashN@arc.losrios.edu

Figure 5: Each catalog department page will have a prominent “Get a Roadmap!” icon that links to a list the program roadmaps available for the programs offered by that department. It will be on the overview tab, just above the department contact information. Degree and certificate information will be on a separate tab.

PROGRAM ROADMAPS YOUR PATHWAY TO PROGRAM COMPLETION

+ Accounting	+ Engineering	+ Music
+ Administration of Justice	+ English	+ Natural Resources
+ Anthropology	English AA-T (full time)	+ Nursing & Allied Health
+ Art	English AA-T (part time)	+ Nutrition & Foods
+ Art New Media	+ Fashion	+ Paramedic/EMT
+ ASL-English Interpreter Preparation	+ Foreign Languages	+ Philosophy

Figure 6: Program roadmaps will be available on a separate page, grouped together within an accordion by catalog department (see English in the figure as an example). The “Get a Roadmap!” icons will be linked to this page.