

## District Technical Review Committee Meeting Agenda

Tuesday, May 3, 2022	2:30-4:00pm	CAADO 209/Zoom
Committee Members	Guests	
□ Steven Schmidt (Chair, MUS)	□ Lijuan Zhai (A Institutional Effec	VC Ed Services and ctiveness, RCCD)
□ Jeannie Kim (Co-Chair, VC Ed. Servio	ces) 🛛 🗆 Bryan Nicol (S	taff, RCCD)
□ Kelly Douglass (ENG, RCC)	🗆 Ellen Brown-D	Drinkwater (AO, RCC)
□ Brian Johnson (MAT, NOR)	🗆 Nick Franco (A	AO, NOR)
□ Ann Pfeifle (HIS, MVC)	🗆 Jeanne Howard	l (AO, MVC)
	🗆 Sabina Fernanc	dez (Staff, MVC)
	Casandra Gree	ne (Staff, RCC)
	□ Nicole Brown	(Staff, NOR)
Additional Guests:		<u>```</u>

#### Zoom Information

<u>https://rccd-edu.zoom.us/j/99867006916?pwd=NGhZc3d1dms0TUo1VTNPTHY1a1BJZz09</u> +1 669 900 6833 US Meeting ID: 998 6700 6916; Passcode: 653798

#### **Agenda and Minutes**

- 1. Approval of Agenda
- 2. Approval of Minutes April 19, 2022

#### **Action Items**

1. Curriculum Proposals

#### **Discussion Items**

1. Course Materials Fees – Kelly Douglass

#### **Program Documentation**

- 1. New Programs
  - a. Norco Data Analytics
  - b. Norco Data Science
  - c. Norco Noncredit Essential Revit
  - d. Norco Noncredit Essential 3D Tour
  - e. Norco Noncredit Essential CAD



- f. Norco Noncredit Essential Fusion 360
- g. Norco Noncredit Essential SolidWorks

# Technical Review - Curriculum Proposals Proposals for 05/03/2022

С	Courses					
С	ourse Major I	<b>Modifications</b>	MNR	Notes		
	EAR 19	Observation and Assessment in Early Childhood Education				
	EAR 20	Child Growth and Development				
	EAR 24	Introduction to Curriculum				
	EAR 26	Health, Safety and Nutrition				
	EAR 28	Principles and Practices of Teaching Young Children				
	EAR 30	Practicum in Early Childhood Education				
	EAR 42	Child, Family, and Community				
Η	ETS 2 Held to await cros	Introduction to Chicanx and Latinx Studies slisted HIS 31 (now HIS 61).				
н	HMS 50 Held for crossliste	Introduction to African American Families and Populations d ETS partner.				
н	HMS 51 Held for crossliste	Introduction to Latina and Latino American Families and Populations d ETS partner.				
н	HMS 52 Held for crossliste	Introduction to Asian American Families and Populations d ETS partner.				
н	HMS 53 Held for crossliste	Introduction to Native American Families and Populations				
н	<b>RLE 81</b> For RLE courses, v	Real Estate Practices arious revisions to content needed.				
н	RLE 82	Legal Aspects of Real Estate				
н	RLE 83	Real Estate Finance				
н	RLE 84	Real Estate Appraisal				
н	RLE 85	Real Estate Economics				
н	RLE 86	Escrow Procedures I				

С	ourses			
<u>C</u>	ourse Minor I	<b>Modifications</b>	MNR	Notes
н	KIN V04 Minutes attached	Basketball, Varsity, Men do not show approval.		
H	PDS 808 Holding for CAT cr	Critical Thinking, Problem Solving and Decision Making osslisting.		
H	PDS 810 Holding for CAT cr	Time Management osslisting.		
н	PDS 811 Holding for CAT cr	High Impact Presentations and Proposals for the Work Place		
н	PDS 812 Holding for CAT cr	Workplace Communication Strategies		
D	istance Educa	ition	MNR	Notes
н	states there are or	Advanced Computer Aided Drafting (CAD) are for the course approval, not the DE approval. Description campus required portions, but the proposal is marked as It also states exams will take place on campus.		
н	states there are or	<b>Basic Fusion 360</b> are for the course approval, not the DE approval. Description campus required portions, but the proposal is marked as l It also states exams will take place on campus.		
н	states there are or	Advanced Fusion 360 are for the course approval, not the DE approval. Description campus required portions, but the proposal is marked as It also states exams will take place on campus.		
	EST 10DE	Industrial Calculation		
	EST 30DE	Architectural Blueprint Reading		
	EST 32DE	Architectural Practice 1		
	EST 33DE	Materials of Construction		
	GEG 1HDE	Honors Physical Geography		
	GEG 5DE	Weather and Climate		
	GEG 6DE	Geography of the United States and Canada		
	GEG 7DE	Map Interpretation and Analysis		
	GEG 8DE	Introduction to Geographic Information Systems, with Lab		
	PHS 5DE	Weather and Climate		

С	ourses			
N	ew Courses		MNR	Notes
н	ARE 824 Mirrored courses o linked.	<b>Revit I-Architectural Drafting</b> contain "same as" language. Is it needed? Entrance skills ar	e not	
н	ARE 825 Mirrored courses of linked.	<b>Revit II-Advanced Architectural Drafting</b> contain "same as" language. Is it needed? Entrance skills ar	e not	
н	ARE 863	3D Tour, Virtual, Mixed, Augmented and Extended Reality		
	Mirrored courses of linked.	contain "same as" language. Is it needed? Entrance skills ar	e not	
н	CON 862	Print Reading for Construction		
	Contains same as	"ARE 62" which is a course that does not exist.		
н	enrollment were a apprentice. Course lecture content ba	Slabs/Interior-Exterior Footings inits were adjusted down to nearest .5 unit value. Limitation idded to every course requiring student is approved indent e numbers were moved to 400s. Lab content was duplicate ised on curriculum from Santiago college. Many of the cour showing approval of the specific courses.	ured d into	
н	CRP 403A	Tilt-Up Introduction		
н	CRP 404	Lifting and Bracing Safety - Site Awareness		
н	<b>CRP 404A</b> Title/Content appe	Lifting and Bracing Safety - Lifting Awareness ears to be duplicated with another CRP course.		
н	CRP 404B	Poured-in-Place Wall Forms		
н	CRP 404C	Print Reading - Symbols		
	Title/Content appe	ears to be duplicated with another CRP course.		
н	<b>CRP 405A</b> Hours in course co	Wall-Column Forms/Cutting and Burning ontent do not add up to the lecture and lab hours.		
н	CRP 405B	Site Work/Curb and Gutter		
н	CRP 405C	Specialized Forms and Rigging		
н	<b>CRP 421A</b> Title/Content appe	<b>Orientation - Hand Tools Safety</b> ears to be duplicated with another CRP course.		
н	CRP 421B	Safety and Health Certifications - Hand & Power Tools Applications		
	Title/Content appe	ears to be duplicated with another CRP course.		
н	CRP 421C	Basic Wall Framing		
н	CRP 421E	Tool/Equipment Applications - Emergency Response Procedures		
	Title/Content appe	ears to be duplicated with another CRP course.		

Courses		
New Courses		M N R Notes
H CRP 422A	Commercial Floor Framing	
H CRP 422B	Basic Stairs	
H CRP 422D	Exterior Finish Details	
H CRP 422E	Commercial Roof Framing	
H CRP 423B	Basic Roof Framing	
H CRP 423C	Advanced Roof Framing	
H CRP 424A	Basic Commercial Framing	
H CRP 424B Hours in course	Advanced Commercial Framing content do not add up to the lecture and lab hours.	
H CRP 424C	Panelized Roofing	
H CRP 424D	Transit Level/Laser	
H CRP 424E	Total Station I	
H CRP 425	Welding Fabrication	
H CRP 425A	Foundations and Flatwork	
H CRP 425C	Advanced Stairs	
H CRP 425D	Advanced Print Reading - Digital Planning	
H CRP 426A	Tilt-Up Panel Construction	
H CRP 426B	Wall Forming	
H CRP 426C	Gang Forms/Columns	
H CRP 426D	Abutments	
H CRP 427C	Beam and Deck Forming	
H CRP 427D	Stairs and Ramp Forming	
H CRP 428A	Bridge Construction	
H CRP 428C	Intermediate Commercial Framing	
H CRP 428E	Bridge Falsework	
H CRP 429A	Rigging	
H CRP 429BJ	<b>Rigging Qualification Studies - Journeyworker</b>	

New Courses		MNR	Notes
H CRP 429C	Solar Installer Level 1		
H CRP 430A A first aid course	Standard First Aid already exists in KIN.		
H CRP 433A	Cabinet Millwork and Assembly		
H CRP 433B	Cabinet Installation		
H CRP 433C	Show Case and Loose Store Fixtures		
H CRP 433D	Molding and Trims		
H CRP 434A	Plastic Laminates		
H CRP 434B	Solid and Stone Surfaces		
H CRP 434C	Stair Trim		
H CRP 434D	Doors and Door Hardware		
H CRP 435C	Exit and Electrical Security Devices		
H CRP 440CJ	Scaffold Erector, Standard 40 Hour - Journeyworker		
H CRP 440EJ	Scaffold Erector, Systems Scaffold - Journeyworker		
H CRP 441A	Powered Industrial Truck Operator - Rough Terrain		
H CRP 441B	Powered Industrial Truck Operator		
H CRP 461A	Acoustical Ceilings		
H CRP 461B	Advanced Acoustical Ceiling Layout		
H CRP 461C	Advanced Acoustical Ceiling Installation		
H CRP 462	Standard Acoustical Grids		
H CRP 463	Suspended Ceilings		
H CRP 464	Acoustical Soffits		
H CRP 465	Prefab/Sound Panels		
H CRP 466	Concealed/Glue-Up/Staple-Up Systems		
H CRP 467	Designer and Specialty Trims		
H CRP 468	Metal Pan and Security Systems		
H CRP 471A Title/Content app	<b>Orientation - Power Tools Safety</b> bears to be duplicated with another CRP course.		

Courses	
New Courses	M N R Notes
H         CRP 471B         Safety and Health Certifications - Scaffold           Title/Content appears to be duplicated with another CRP course.	
H         CRP 471C         Tool/Equipment Applications - Fall Protection           Title/Content appears to be duplicated with another CRP course.	
H CRP 472A Basic Metal Framing	
H CRP 472B Basic Lathing	
H CRP 472C Advanced Lathing	
H CRP 473A Framing Ceilings and Soffits	
H CRP 473B Framing Suspended Ceilings	
H CRP 473C Framing Curves and Arches	
H         CRP 474A         Print Reading - Specifications           Title/Content appears to be duplicated with another CRP course.	
H CRP 474B Advanced Print Reading	
H CRP 474C Air, Moisture, and Thermal Barriers	
H CRP 475A Light Gage Welding AWS - A	
H CRP 475B Light Gage Welding LAC	
H CRP 475C Light Gage Welding AWS - B	
H CRP 476A Basic Hand Finishing	
H CRP 476B Automatic Finishing Tools	
H CRP 477A Drywall Installation/Finish Trims	
H CRP 477B Advanced Hand Finishing	
H CRP 477C Advanced Automatic Finishing Tools	
H CRP 478B Advanced Metal Framing	
H CRP 478C Wet Wall Finishes	
H CRP 478D Ceiling and Soffit Finishing	
H CRP 479A Drywall and Acoustical Ceilings	
H         CRP 479C         Drywall Applications - Production Drywall Hanging           Title/Content appears to be duplicated with another CRP course.	
H         CRP 479D         Drywall Applications - Drywall Estimating           Title/Content appears to be duplicated with another CRP course.	

С	ourses			
N	ew Courses		MNR	Notes
н	CRP 482B	S/B Firestop/Fireproofing Procedures		
н	CRP 482C	Decorative Trims and Textures		
н	<b>CRP 483</b> Title/Content appe another CRP cours	<b>Door and Door Frames</b> ears to be duplicated.Title/Content appears to be duplicate se.	ed with	
н	<b>CRP 483C</b> Title/Content appe	<b>Door/Door Frame</b> ears to be duplicated with another CRP course.		
н	CRP 486A	Exterior Insulation Finish Systems (EIFS)		
н	CRP 489	Freeform Lathing		
H	<b>CRP 490</b> Has very little cont	Residential Steel Stud Framing		
н	CRP 494J	Confined Space - Journeyworker		
н	CRP 495	Water Treatment Facilities		
Η	<b>DFT 824</b> Has GESLOs attach	Revit I-Architectural Drafting ned.		
н	<b>DFT 830</b> Entrance skills are	<b>Computer Aided Drafting (CAD)</b> not linked. GESLOs are attached. Minutes do not match.		
н	DFT 831	Advanced Computer Aided Drafting (CAD)		
Η	<b>DFT 842</b> GESLOs can be ren	SolidWorks I noved. Course content 2a is blank.		
н	<b>DFT 842B</b> GESLOs can be ren	SolidWorks II noved. "Same as" language should be reviewed.		
н	DFT 862	Basic Fusion 360		
н	DFT 863	Advanced Fusion 360		
н	EMS 56 Short description of enrollment needed	Advanced Emergency Medical Technician does not match description. There may be a limitation on d.		
H	EMS 57 Limitation on enro	Advanced Emergency Medical Technician (clinical) Ilment may be needed. APP is listed as cross discipline.		
Η	-	<b>Dynamics</b> fixes needed. No entrance skills. Course content may be lig ay need to be changed.	□ 🗹 🗋 ght.	
н	-	Strength of Materials fixes needed. No entrance skills. Course content may be lig ay need to be changed.	□ 🖌 🗌 ght.	

C	ourses			
N	ew Courses		MNR	Notes
н	ENE 842	SolidWorks I		
н	ENE 842B	SolidWorks II		
G	eneral Educ	ation		
G	eneral Educat	tion Modifications	MNR	Notes
	MAT 9 Rationale on propo course into genera	<b>BSTEM College Algebra</b> osal is blank. A rationale is needed to justify the inclusion Il education.	✔ ✔ ✔ of the	
	MUS 98 Holding for furthe	<b>Careers and Entrepreneurship in Music and the Arts</b> r discussion. Course is also being re-evaluated at the state	<ul><li>✓ ✓</li><li>✓ </li></ul>	
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P	rograms			
N	ew Programs		MNR	Notes
Ce	rtificate			
	<b>CIS</b> Holding for region	Data Analytics al consortium, advisory recommendation, and LMI.		
De	egree			
	CIS	Data Science		
		al consortium, advisory recommendation, and LMI.		
	on-Credit Certific			
	ARE Holding for course	Noncredit Essential 3D Tour		
н	ARE Holding for course	Noncredit Essential Revit		
	<b>DFT</b> Holding for course	Noncredit Essential CAD s.		
	<b>DFT</b> Holding for course	Noncredit Essential Fusion 360 s.		
	<b>DFT</b> Holding for course	Noncredit Essential SolidWorks s.		
	ogram Modif	fications	MNR	Notes
	HMS	Careers in Social Work		
н	HMS	Social Work Administration Studies		

# **Technical Review Committee**

Proposals for Review for Meeting: 05/03/2022

ourse Maj	or Modifications	MNR	Discussion	Action
EAR 19 Rationale:	<b>Observation and Assessment in Early Childhood Education</b> Updating course SLOs, Objectives and Content to remain aligned with the California Alignment Project and the CTC Teacher Performance Expecta also added new language around equity and diversity.			
EAR 20 Rationale:	<b>Child Growth and Development</b> Updating course SLOs, Objectives and Content to remain aligned with th California Alignment Project and the CTC Teacher Performance Expecta also added new language around equity and diversity.			
EAR 24 Rationale:	Introduction to Curriculum Updating SLOs, Objectives, and course content to maintain alignment w California Alignment Project and to align with CTC Teacher Performance Expectations. Also included language around equity and diversity.			
EAR 26 Rationale:	Health, Safety and Nutrition This course is one of the California Alignment Project Required 8 course needs modifying to bring it into alignment with the most current versio also aligned to the newly created Commission for Teacher Credentialing Performance Expectations (TPEs). Also updated with new language arc equity and diversity.	n, which is g,Teacher		
EAR 28 Rationale:	Principles and Practices of Teaching Young Children This course is one of the California Alignment Project Required 8 course needs modifying to bring it into alignment with the most current versio also aligned to the newly created Commission for Teacher Credentialing Performance Expectations (TPEs). Also updated with new language arc equity and diversity.	n, which is g,Teacher		
EAR 30 Rationale:	Practicum in Early Childhood Education This course is one of the California Alignment Project Required 8 course needs modifying to bring it into alignment with the most current versio also aligned to the newly created Commission for Teacher Credentialing Performance Expectations (TPEs). Also updated with new language arc equity and diversity	n, which is g,Teacher		

Courses				
Course Major Modifications			Discussion	Action
EAR 42 Rationale:	<b>Child, Family, and Community</b> This course is one of the California Alignment Project Required 8 courses needs modifying to bring it into alignment with the most current version also aligned to the newly created Commission for Teacher Credentialing, Performance Expectations (TPEs). Also updated with new language arou equity and diversity.	, which is Teacher		
H Rationale:	Introduction to Chicanx and Latinx Studies Per AB1460, this Ethnic Studies course is designed to fulfill the CSU Area Breadth graduation requirement.	<ul> <li>✓</li> <li>✓</li></ul>	Held to await crosslisted HIS 31 (now HIS 61).	
HMS 50 Rationale:	Introduction to African American Families and Populations Revised the five SLOs as provided by the California State University Coun Ethnic Studies Core Competencies for Ethnic Studies System-wide Gradua Requirement, updated course content		Held for crosslisted ETS partner.	
HMS 51 Rationale:	Introduction to Latina and Latino American Families and Populations Revised the five SLOs as provided by the California State University Coun Ethnic Studies Core Competencies for Ethnic Studies System-wide Gradua Requirement, updated course content		Held for crosslisted ETS partner.	
HMS 52 Rationale:	Introduction to Asian American Families and Populations Revised the five SLOs as provided by the California State University Coun Ethnic Studies Core Competencies for Ethnic Studies System-wide Gradua Requirement, updated course content		Held for crosslisted ETS partner.	
HMS 53 Rationale:	Introduction to Native American Families and Populations Revised the five SLOs as provided by the California State University Coun Ethnic Studies Core Competencies for Ethnic Studies System-wide Gradua Requirement, updated course content		Held for crosslisted ETS partner.	
H Rationale:	<b>Real Estate Practices</b> This course is being updated as a major modification to include current a relevant SLOs, detailed course content, detailed assignments and update textbook information.		For RLE courses, various revisions to content needed.	

C								
C	ourse Majo	r Modifications	MNR	Discussion	Action			
н	RLE 82 Rationale:	Legal Aspects of Real Estate This course is being updated as a major modification to include current an relevant SLOs, detailed course content, detailed assignments and updated textbook information.						
н	RLE 83 Rationale:	<b>Real Estate Finance</b> This course is being updated as a major modification to include current an relevant SLOs, detailed course content, detailed assignments and updated textbook information.						
н	RLE 84 Rationale:	<b>Real Estate Appraisal</b> This course is being updated as a major modification to include current an relevant SLOs, detailed course content, detailed assignments and updated textbook information.						
н	<b>RLE 85</b> Rationale:	<b>Real Estate Economics</b> This course is being updated as a major modification to include current an relevant SLOs, detailed course content, detailed assignments and updated textbook information.						
н	<b>RLE 86</b> Rationale:	<b>Escrow Procedures I</b> This course is being updated as a major modification to include current an relevant SLOs, detailed course content, detailed assignments and updated textbook information.						
C	ourse Mino	or Modifications	MNR	Discussion	Action			
н	<b>KIN V04</b> Rationale:	Basketball, Varsity, Men Update course materials.		Minutes attached do not show approval.				
н	PDS 808 Rationale:	Critical Thinking, Problem Solving and Decision Making Two year CTE review. No changes needed.		Holding for CAT crosslisting.				
н	<b>PDS 810</b> Rationale:	Time Management Two year CTE review. No changes needed.		Holding for CAT crosslisting.				
н	<b>PDS 811</b> Rationale:	High Impact Presentations and Proposals for the Work Place Two year CTE review. No changes needed.		Holding for CAT crosslisting.				

courses				
Course Min	or Modifications	MNR	Discussion	Action
H PDS 812 Rationale:	Workplace Communication Strategies Two year CTE review. No changes needed.		Holding for CAT crosslisting.	
Distance Ed	ucation	MNR	Discussion	Action
H Rationale:	Advanced Computer Aided Drafting (CAD)		Minutes attached are for the course approval, not the DE approval. Description states there are on campus required portions, but the proposal is marked as both hybrid and online. It also states exams will take place on campus.	
H DFT 62DE Rationale:	Basic Fusion 360		Minutes attached are for the course approval, not the DE approval. Description states there are on campus required portions, but the proposal is marked as both hybrid and online. It also states exams will take place on campus.	
H DFT 63DE Rationale:	Advanced Fusion 360		Minutes attached are for the course approval, not the DE approval. Description states there are on campus required portions, but the proposal is marked as both hybrid and online. It also states exams will take place on campus.	
<b>EST 10DE</b> Rationale:	Industrial Calculation			
EST 30DE Rationale:	Architectural Blueprint Reading			
<b>EST 32DE</b> Rationale:	Architectural Practice 1			
EST 33DE Rationale:	Materials of Construction			
GEG 1HDE Rationale:	Honors Physical Geography			

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D	istance Ed	ucation	MNR	Discussion	Action
	<b>GEG 5DE</b> Rationale:	Weather and Climate			
	<b>GEG 6DE</b> Rationale:	Geography of the United States and Canada			
	GEG 7DE Rationale:	Map Interpretation and Analysis			
	GEG 8DE Rationale:	Introduction to Geographic Information Systems, with Lab			
	PHS 5DE Rationale:	Weather and Climate			
New Courses		MNR	Discussion	Action	
н	ARE 824 Rationale:	<b>Revit I-Architectural Drafting</b> Developed as a part of a noncredit certificate.		Mirrored courses contain "same as" language. Is it needed? Entrance skills are not linked.	
н	ARE 825 Rationale:	<b>Revit II-Advanced Architectural Drafting</b> Developed as a part of a noncredit certificate.		Mirrored courses contain "same as" language. Is it needed? Entrance skills are not linked.	
н	ARE 863 Rationale:	<b>3D Tour, Virtual, Mixed, Augmented and Extended Reality</b> Developed as a part of a noncredit certificate.		Mirrored courses contain "same as" language. Is it needed? Entrance skills are not linked.	
н	<b>CON 862</b> Rationale:	<b>Print Reading for Construction</b> Developed as a part of a noncredit certificate.		Contains same as "ARE 62" which is a course that does not exist.	
н	CRP 402B Rationale:	Slabs/Interior-Exterior Footings		For CRP courses, units were adjusted down to nearest .5 unit value. Limitations on enrollment were added to every course requiring student is approved indentured apprentice. Course numbers were moved to 400s. Lab content was duplicated into lecture content based on curriculum from Santiago college. Many of the courses do not have minutes showing approval of the specific courses.	
н	<b>CRP 403A</b> Rationale:	Tilt-Up Introduction			

Technical Review Proposals for 05/03/2022

Proposals marked with a red "H" were held at a previous Tech Review meeting.

Courses					
N	<u>New Courses</u>			Discussion	Action
н	CRP 404 Rationale:	Lifting and Bracing Safety - Site Awareness An agreement (Attached MOU) made with Southwest Carpenters Union them train our students with the courses we develop based on Carpente Curriculum and Santiago Valley College. These courses are same as 400 s apprenticeship programs, taught by professionals on the job site. (No Ne required). We are planning to schedule this program/courses in Fall 22	r's Union eries		
н	<b>CRP 404A</b> Rationale:	Lifting and Bracing Safety - Lifting Awareness		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 404B</b> Rationale:	Poured-in-Place Wall Forms			
н	<b>CRP 404C</b> Rationale:	Print Reading - Symbols		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 405A</b> Rationale:	Wall-Column Forms/Cutting and Burning		Hours in course content do not add up to the lecture and lab hours.	
н	<b>CRP 405B</b> Rationale:	Site Work/Curb and Gutter			
н	<b>CRP 405C</b> Rationale:	Specialized Forms and Rigging			
н	<b>CRP 421A</b> Rationale:	Orientation - Hand Tools Safety		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 421B</b> Rationale:	Safety and Health Certifications - Hand & Power Tools Applications		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 421C</b> Rationale:	Basic Wall Framing			
н	<b>CRP 421E</b> Rationale:	Tool/Equipment Applications - Emergency Response Procedures		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 422A</b> Rationale:	Commercial Floor Framing			
н	CRP 422B Rationale:	Basic Stairs			

Technical Review Proposals for 05/03/2022

Proposals marked with a red "H" were held at a previous Tech Review meeting.

С	Courses				
N	New Courses		M N R	Discussion	Action
- H	<b>CRP 422D</b> Rationale:	Exterior Finish Details			
н	<b>CRP 422E</b> Rationale:	Commercial Roof Framing			
н	<b>CRP 423B</b> Rationale:	Basic Roof Framing			
н	CRP 423C Rationale:	Advanced Roof Framing			
н	<b>CRP 424A</b> Rationale:	Basic Commercial Framing			
н	<b>CRP 424B</b> Rationale:	Advanced Commercial Framing		Hours in course content do not add up to the lecture and lab hours.	
. н	<b>CRP 424C</b> Rationale:	Panelized Roofing			
н	<b>CRP 424D</b> Rationale:	Transit Level/Laser			
. н	<b>CRP 424E</b> Rationale:	Total Station I			
н	<b>CRP 425</b> Rationale:	Welding Fabrication			
н	<b>CRP 425A</b> Rationale:	Foundations and Flatwork			
н	<b>CRP 425C</b> Rationale:	Advanced Stairs			
н	<b>CRP 425D</b> Rationale:	Advanced Print Reading - Digital Planning			
н	<b>CRP 426A</b> Rationale:	Tilt-Up Panel Construction			
н	<b>CRP 426B</b> Rationale:	Wall Forming			

Courses					
N	lew Courses	<u>S</u>	MNR	Discussion	Action
н	<b>CRP 426C</b> Rationale:	Gang Forms/Columns			
н	<b>CRP 426D</b> Rationale:	Abutments			
н	<b>CRP 427C</b> Rationale:	Beam and Deck Forming			
н	<b>CRP 427D</b> Rationale:	Stairs and Ramp Forming			
н	<b>CRP 428A</b> Rationale:	Bridge Construction			
н	<b>CRP 428C</b> Rationale:	Intermediate Commercial Framing			
н	<b>CRP 428E</b> Rationale:	Bridge Falsework			
н	<b>CRP 429A</b> Rationale:	Rigging			
н	<b>CRP 429BJ</b> Rationale:	Rigging Qualification Studies - Journeyworker			
н	<b>CRP 429C</b> Rationale:	Solar Installer Level 1			
н	<b>CRP 430A</b> Rationale:	Standard First Aid		A first aid course already exists in KIN.	
н	<b>CRP 433A</b> Rationale:	Cabinet Millwork and Assembly			
н	<b>CRP 433B</b> Rationale:	Cabinet Installation			
н	<b>CRP 433C</b> Rationale:	Show Case and Loose Store Fixtures			
н	<b>CRP 433D</b> Rationale:	Molding and Trims			

С	Courses					
N	ew Course	<u>s</u>	M N R Discussion	Action		
н	<b>CRP 434A</b> Rationale:	Plastic Laminates				
н	<b>CRP 434B</b> Rationale:	Solid and Stone Surfaces				
н	<b>CRP 434C</b> Rationale:	Stair Trim				
н	<b>CRP 434D</b> Rationale:	Doors and Door Hardware				
н	<b>CRP 435C</b> Rationale:	Exit and Electrical Security Devices				
н	<b>CRP 440CJ</b> Rationale:	Scaffold Erector, Standard 40 Hour - Journeyworker				
н	<b>CRP 440EJ</b> Rationale:	Scaffold Erector, Systems Scaffold - Journeyworker				
н	<b>CRP 441A</b> Rationale:	Powered Industrial Truck Operator - Rough Terrain				
н	<b>CRP 441B</b> Rationale:	Powered Industrial Truck Operator				
н	<b>CRP 461A</b> Rationale:	Acoustical Ceilings				
н	<b>CRP 461B</b> Rationale:	Advanced Acoustical Ceiling Layout				
н	<b>CRP 461C</b> Rationale:	Advanced Acoustical Ceiling Installation				
н	<b>CRP 462</b> Rationale:	Standard Acoustical Grids				
н	<b>CRP 463</b> Rationale:	Suspended Ceilings				
н	<b>CRP 464</b> Rationale:	Acoustical Soffits				

Courses					
N	ew Courses	5	MNR	Discussion	Action
н	<b>CRP 465</b> Rationale:	Prefab/Sound Panels			
н	<b>CRP 466</b> Rationale:	Concealed/Glue-Up/Staple-Up Systems			
н	<b>CRP 467</b> Rationale:	Designer and Specialty Trims			
н	<b>CRP 468</b> Rationale:	Metal Pan and Security Systems			
н	<b>CRP 471A</b> Rationale:	Orientation - Power Tools Safety		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 471B</b> Rationale:	Safety and Health Certifications - Scaffold		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 471C</b> Rationale:	Tool/Equipment Applications - Fall Protection		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 472A</b> Rationale:	Basic Metal Framing			
н	<b>CRP 472B</b> Rationale:	Basic Lathing			
н	<b>CRP 472C</b> Rationale:	Advanced Lathing			
н	<b>CRP 473A</b> Rationale:	Framing Ceilings and Soffits			
н	<b>CRP 473B</b> Rationale:	Framing Suspended Ceilings			
н	<b>CRP 473C</b> Rationale:	Framing Curves and Arches			
н	<b>CRP 474A</b> Rationale:	Print Reading - Specifications		Title/Content appears to be duplicated with another CRP course.	
н	<b>CRP 474B</b> Rationale:	Advanced Print Reading			

Technical Review Proposals for 05/03/2022

Proposals marked with a red "H" were held at a previous Tech Review meeting.

Courses					
New Courses		M N R Discussion	Action		
H CRP 474C Air, Moisture, and Therma Rationale:	l Barriers				
H CRP 475A Light Gage Welding AWS - Rationale:	A				
H CRP 475B Light Gage Welding LAC Rationale:					
H CRP 475C Light Gage Welding AWS - Rationale:	В				
H CRP 476A Basic Hand Finishing Rationale:					
H CRP 476B Automatic Finishing Tools Rationale:					
H CRP 477A Drywall Installation/Finish Rationale:	Trims				
H CRP 477B Advanced Hand Finishing Rationale:					
H CRP 477C Advanced Automatic Finis Rationale:	hing Tools				
H CRP 478B Advanced Metal Framing Rationale:					
H CRP 478C Wet Wall Finishes Rationale:					
H CRP 478D Ceiling and Soffit Finishing Rationale:					
H CRP 479A Drywall and Acoustical Cell Rationale:	ilings				
H CRP 479C Drywall Applications - Pro Rationale:	duction Drywall Hanging	Title/Content appears to be c another CRP course.	luplicated with		
H CRP 479D Drywall Applications - Dry Rationale:	wall Estimating	Title/Content appears to be c another CRP course.	luplicated with		

C	Courses						
Ν	ew Course	<u>s</u>	MNR	Discussion	Action		
н	<b>CRP 482B</b> Rationale:	S/B Firestop/Fireproofing Procedures					
н	<b>CRP 482C</b> Rationale:	Decorative Trims and Textures					
н	CRP 483 Rationale:	Door and Door Frames		Title/Content appears to be duplicated.Title/Content appears to be duplicated with another CRP course.			
н	<b>CRP 483C</b> Rationale:	Door/Door Frame		Title/Content appears to be duplicated with another CRP course.			
н	<b>CRP 486A</b> Rationale:	Exterior Insulation Finish Systems (EIFS)					
н	<b>CRP 489</b> Rationale:	Freeform Lathing					
н	<b>CRP 490</b> Rationale:	Residential Steel Stud Framing		Has very little content.			
н	<b>CRP 494J</b> Rationale:	Confined Space - Journeyworker					
н	<b>CRP 495</b> Rationale:	Water Treatment Facilities					
н	<b>DFT 824</b> Rationale:	<b>Revit I-Architectural Drafting</b> Developed as a part of a noncredit certificate.		Has GESLOs attached.			
н	<b>DFT 830</b> Rationale:	<b>Computer Aided Drafting (CAD)</b> Developed as a part of a noncredit certificate.		Entrance skills are not linked. GESLOs are attached. Minutes do not match.			
н	<b>DFT 831</b> Rationale:	Advanced Computer Aided Drafting (CAD) Developed as a part of a noncredit certificate.					
н	<b>DFT 842</b> Rationale:	SolidWorks I Developed as a part of a noncredit certificate.		GESLOs can be removed. Course content 2a is blank.			
н	<b>DFT 842B</b> Rationale:	SolidWorks II Developed as a part of a noncredit certificate.		GESLOs can be removed. "Same as" language should be reviewed.			

Technical Review Proposals for 05/03/2022

Proposals marked with a red "H" were held at a previous Tech Review meeting.

С	ourses				
N	ew Course	<u>25</u>	MNR	Discussion	Action
н	<b>DFT 862</b> Rationale:	Basic Fusion 360 Emerging technology for makers. A part of "Essential Fusion 360'	🗌 🗹 🗌 '' certificate.		
н	<b>DFT 863</b> Rationale:	Advanced Fusion 360 Developed as a part of a noncredit certificate.			
н	<b>EMS 56</b> Rationale:	Advanced Emergency Medical Technician There are 4 different levels of training for EMS and this course w offerings of all four courses. The partners that we serve are requ training for their fire personnel and this course would fill that ga	lesting the	Short description does not match description. There may be a limitation on enrollment needed.	
н	EMS 57 Rationale:	Advanced Emergency Medical Technician (clinical) The course is being designed to meet the needs of our tribal part training their EMTs to the Advanced EMT level. This course is su Riverside County EMS Agency and the government agency appro of this course.	pported by	Limitation on enrollment may be needed. APP is listed as cross discipline.	
н	ENE 35B Rationale:	<b>Dynamics</b> The course is needed to support transfer student needs for multi majors. The course is an extension of ENE 35 statics which Norco offers.		Some fortmatting fixes needed. No entrance skills. Course content may be light. Course number may need to be changed.	
н	ENE 35C Rationale:	Strength of Materials The course is needed to support engineering transfer students po transfer requirements.	repare and satisfy	Some fortmatting fixes needed. No entrance skills. Course content may be light. Course number may need to be changed.	
н	ENE 842 Rationale:	SolidWorks I Developed as a part of a noncredit certificate.			
н	ENE 842B Rationale:	SolidWorks II Developed as a part of a noncredit certificate.			

## **General Education**

6	ieneral Edu	cation Modifications	MNR	Discussion	Action
н	MAT 9 Rationale:	<b>BSTEM College Algebra</b> The Math discipline has voted to approve Math 9 to satisfy the RCCD GE requirement in Language and Rationality.		Rationale on proposal is blank. A rationale is needed to justify the inclusion of the course into general education.	
н	MUS 98 Rationale:	<b>Careers and Entrepreneurship in Music and the Arts</b> Proposal to include MUS 98 Careers in Music in RCCD GE Area E 2		Holding for further discussion. Course is also being re-evaluated at the state level.	
F	rograms				
Ν	lew Progra	<u>ms</u>	MNR	Discussion	Action
С	ertificate				
н	CIS Data Analytics		Holding for regional consortium, advisory recommendation, and LMI.		
	Documents:	Narrative LMI Advisory Committee Regional Consortium			

P	rograms				
N	New Programs MN R			Discussion	Action
D	egree				
н	CIS Rationale:	<b>Data Science</b> This program addresses industry's continuing demands for professionals and build tools to meet the data quality validation needs for a cloud plat based application and building enterprise analytics of large data volume Inland Empire/Desert region Labor Market Information report, the data- occupation is projected to have 189 annual job openings, increasing emp by 8% through 2024. The 10th percentile hourly wage for data analysis r occupations exceeds the Family Needs Calculator self-sustainability rate, indicating that approximately the top 90% of workers in this occupation sufficient hourly wages. The courses in this program will also align with u courses, which will permit students to transfer to further develop skills a knowledge in the areas of Data Science.	tform- . Based on -analysis ployment elated , earn self- university	Holding for regional consortium, advisory recommendation, and LMI.	
	Documents:	Narrative         LMI         Advisory Committee         Regional Consortium			
N	on-Credit Cert	ificate			
н	ARE Rationale:	Noncredit Essential 3D Tour To make this program available to a broader range of students and profe who just need the training and increase the level of skills in the commun		Holding for courses.	
	Documents:	Narrative Employment Potential			
н	ARE Rationale:	Noncredit Essential Revit To make this program available to a broader range of student and profe who just need the training and increase the level of skills in the commun		Holding for courses.	
	Documents:	Narrative Employment Potential			
н	DFT Rationale:	Noncredit Essential CAD To make this program available to a broader range of students and profe who just need the training and increase the level of skills in the commun		Holding for courses.	
н	Documents: DFT Rationale: Documents:	Narrative         Employment Potential           Noncredit Essential Fusion 360           To make this program available to a broader range of student and profet who just need the training and increase the level of skills in the communication Narrative           Employment Potential		Holding for courses.	

Programs					
New Progra	ims	MNR	Discussion	Action	
Non-Credit Cer	tificate				
DFT	Noncredit Essential SolidWorks		Holding for courses.		
Rationale:	Rationale: To make this program available to a broader range of student and professionals who just need the training and increase the level of skills in the community.				
Documents:	Narrative Employment Potential				
Program Mo	odifications	MNR	Discussion	Action	
Certificate					
HMS Rationale:	Careers in Social Work				

#### **Program Outline**

#### **Title: Data Analytics**

<b>TOPs Code:</b>	070730			CIP Code: 11.0501
Type of Prog ⊠ Certificate	ram: of Achievement only		ociate's Degree only	Certificate <u>and</u> Degree
Type of Assoc	ciate Degree:	□ Asso	ociate of Arts	□ Associate of Science
This is a:	⊠ New certificate/degr □ New Local certificat			existing certificate/degree existing local certificate

#### If this is a modification to an existing certificate/degree, please specify the changes being made:

(<u>Please be specific</u>! Indicate any changes to title, description, learning outcomes, courses, unit values, etc.)

#### **Rationale:**

This program addresses industry's continuing demands for professionals to test and build tools to meet the data quality validation needs for a cloud platform-based application and building enterprise analytics of large data volume. Based on Inland Empire/Desert region Labor Market Information report, the data-analysis occupation is projected to have 189 annual job openings, increasing employment by 8% through 2024. The 10th percentile hourly wage for data analysis related occupations exceeds the Family Needs Calculator self-sustainability rate, indicating that approximately the top 90% of workers in this occupation earn self-sufficient hourly wages. The courses in this program will also align with university courses, which will permit students to transfer to further develop skills and knowledge in the areas of Data Science.

#### **Required Documentation**

Please submit this form and the documents outlined below to your college coordinator and the District Technical Review committee via TechReview@rccd.edu. Please do not submit your proposal until all of the documentation below is complete.

#### **All Degrees and Certificates**

- Discipline
- Department minutes showing approval
- ⊠ Narrative *(see following page)*
- Transfer preparation documentation *(only if applicable)*

#### Degrees and Certificates of 8 Units or More with Vocational TOPs Codes

In addition to the above, all degrees and certificates of 8 units or more with a vocational TOPs code must include the following to be submitted to the State Chancellor's Office for approval.\*

Labor Market Information and Analysis (required for new programs and modifications; also be recent within 2 years).-

Advisory Committee Recommendation (*Required for new programs and may be required for modifications*. Check with the curriculum coordinator at your college to determine if a new recommendation is necessary.)

Regional Consortium Recommendation (required for new programs only)



\*While certificates between 8 and less than 16 units can be approved locally and are not required to be submitted to the State Chancellor's Office for approval, certificates that have not been approved by the State Chancellor's Office cannot appear on student transcripts and the college cannot receive apportionment for program completions. Additionally, any certificate of less than 8 units can only be approved locally. These certificates also cannot appear on student transcripts and colleges cannot receive apportionment for completion.

#### **Program Narrative**

#### Item 1. Program Goals and Objectives

Data Analytics Certificate of Achievement provides students with a foundation in data analysis, in which students will model, synthesize, and present large data sets for business decision making. Courses will focus on the techniques and tools to extract data from various data sources, model, integrate data, and visualize data for organizational decision making and intelligence gathering. The program prepares students for entry-level jobs, or to help them advance into careers, such as Operation Data Analyst, Business Analytics Specialist, System Data Analyst, Data Visualization Developer, Test Data Analyst, and Market Research Analyst. Topics covered will include statistics, research methods, SQL queries, systems analysis, design, and applied predictive analytics.

#### **Program Learning Outcomes:**

Upon successful completion of this program, students should be able to:

- Identify, extract, clean and maintain data in databases.
- Interpret and evaluate data trends or patterns in complex data sets using statistical techniques, analytic methods, and tools.
- Create and monitor reports to preserve data quality, identify critical issues, trends, and potential solutions.

#### Item 2. Catalog Description

Data Analytics Certificate of Achievement provides students with a foundation in data analysis, in which students will model, synthesize, and present large data sets for business decision making. Courses will focus on the techniques and tools to extract data from various data sources, model, integrate data, and visualize data for organizational decision making and intelligence gathering. The program prepares students for entry-level jobs, or to help them advance into careers, such as Operation Data Analyst, Business Analytics Specialist, System Data Analyst, Data Visualization Developer, Test Data Analyst, and Market Research Analyst. Topics covered will include statistics, research methods, SQL queries, systems analysis, design, and applied predictive analytics.

#### **Program Requirement:**

Before entering this program, students must complete MAT-35 and MAT-10 or MAT-23 or qualifying placement level in mathematics to be successful in courses in the program.

#### **Program Learning Outcomes:**

Upon successful completion of this program, students should be able to:

- Identify, extract, clean and maintain data in databases.
- Interpret and evaluate data trends or patterns in complex data sets using statistical techniques, analytic methods, and tools.
- Create and monitor reports to preserve data quality, identify critical issues, trends, and potential solutions.

Course	Title	Units	Sequencing
CIS-1A	Introduction to Computer Information Systems	3	Semester 1
MAT- 70A/CIS-70A	Foundations of Data Science	3	Semester 1
CIS/CSC-61	Introduction to Database Theory	3	Semester 1
CIS-30A	Introduction to Python Programming	3	Semester 1

#### Required Courses: <u>30</u> units

or	or		
CSC-8	Programming Concepts: Python		
MAT-70B	Statistics for STEM	4	Semester 2
MAT-1A	Calculus I	4	Semester 2
CIS/CSC-63	Introduction to Structured Query Language (SQL)	3	Semester 2
MAT-1B	Calculus II	4	Semester 3
CIS-30E	Advanced Python Programming	3	Semester 3

#### Elective Courses: <u>3</u> units

Course	Title	Units	Sequencing
CIS-68A or	Introduction to Machine Learning	3	Semester 3
CIS-68B or	Big Data Fundamentals	3	Semester 3
CIS/CSC-2 or	Fundamental of Systems Analysis	3	Semester 3
CIS/CSC-20	Systems Analysis and Design	3	Semester 3

Total Program Units: <u>33</u> units

#### **Item 3. Program Requirements**

Course	Title	Units	Sequencing
CIS-1A	Introduction to Computer Information Systems	3	Semester 1
MAT- 70A/CIS-70A	Foundations of Data Science	3	Semester 1
CIS/CSC-61	Introduction to Database Theory	3	Semester 1
CIS-30A or CSC-8	Introduction to Python Programming or Programming Concepts: Python	3	Semester 1
MAT-70B	Statistics for STEM	4	Semester 2
MAT-1A or MAT-1AH	Calculus I / Honors Calculus I	4	Semester 2
CIS/CSC-63	Introduction to Structured Query Language	3	Semester 2
MAT-1B	Calculus II	4	Semester 3
CIS-30E	Advanced Python Programming	3	Semester 3

### Required Courses: <u>30</u> units

#### Elective Courses: <u>3</u> units

Course	Title	Units	Sequencing		
CIS-68A or	Introduction to Machine Learning	3	Semester 3		
CIS-68B or	Big Data Fundamentals	3	Semester 3		
CIS/CSC-2 or	Fundamental of System Analysis	3	Semester 3		
CIS/CSC-20	Systems Analysis and Design	3	Semester 3		

Total Program Units: <u>33</u> units

#### Item 4. Master Planning

This cross-discipline certificate will increase the diversity in Inland Empire workforce by providing technical training emphasis in Career Technical Education. This program will increase the diversity of student population in STEM, Computer Information Systems and Mathematics, aligning with Guided Pathway to support student success. The growth of the program will also address to need to improve special populations in STEM, such as potentially increasing the population of female students and professionals in the areas of STEM. The program is expected to have a steady growth after the initial year with program promotional outreach to local high schools and community centers.

#### **Item 5. Enrollment and Completer Projections**

Enrollment Projects for courses are as followed:

Required courses:

- CIS-1A: 49 students
- MAT-27B: 49 students
- CIS/CSC-61: 49 students
- CIS-30A or CSC-8: 49 students
- CIS-68A/MAT27A: 49 students
- CIS-68B: 49 students

Electives:

- CIS-68C: 49 students
- CIS-2: 49 students
- CIS-20: 49 students This program is expected to have 50 to 100 students by Spring 2023.

#### Item 6. Place of Program in Curriculum/Similar Programs

Most of the courses in the program are active courses that are currently offered at all three campuses in RCCD. The new courses will be incorporated into the program seamlessly. No other programs are similar or the same as the proposed Data Analytics program.

#### Item 7. Similar Programs at Other Colleges in Service Area

No other college in the region offers similar program. This program offers opportunities for students to acquire technical training that will help them build careers and contribute to Inland Empire socialeconomic improvement. It also provides local organizations access to a growing workforce and training resources for their incumbent workers.

#### Item 8. Transfer Preparation Information (if applicable)

Existing courses have been articulated for UC and CSU transfer. New courses can be articulated as transferrable courses at University of California Riverside, California State University San Bernardino, Cal-Poly Pomona, and other institutions. The courses in this certificate can be used toward Associate Degree to Transfer for Data Science for UC and CSU.

Date 3/9/2022

#### **Program Outline**

#### **Title: Data Science**

#### **Originator:** Caroline Hutchings

#### Department: School of Science, Technology, Engineering, and Mathematics

#### 

#### TOPs Code: 0707.30 CIP Code: 11.0501

#### **Type of Program:**

2			<ul> <li>□ Locally approved certificate (8-units or less) only</li> <li>□ Certificate of Achievement and Degree</li> </ul>		
Type of Assoc	iate Degree:	$\Box$ A	ssociate of Arts	⊠ Associate of Science	
This is a:	⊠ New certificate/de	gree	□ Modification to	an existing certificate/degree	

#### If this is a modification to an existing certificate/degree, please specify the changes being made:

(Please be specific! Indicate any changes to title, description, learning outcomes, courses, unit values, etc.)

#### **Rationale:**

This program addresses industry's continuing demands for professionals to test and build tools to meet the data quality validation needs for a cloud platform-based application and building enterprise analytics of large data volume. Based on Inland Empire/Desert region Labor Market Information report, the data-analysis occupation is projected to have 189 annual job openings, increasing employment by 8% through 2024. The 10th percentile hourly wage for data analysis related occupations exceeds the Family Needs Calculator self-sustainability rate, indicating that approximately the top 90% of workers in this occupation earn self-sufficient hourly wages. The courses in this program will also align with university courses, which will permit students to transfer to further develop skills and knowledge in the areas of Data Science.

#### **Required Documentation**

Please submit this form and the documents outlined below to your college coordinator and the District Technical Review committee via TechReview@rccd.edu. Please do not submit your proposal until all of the documentation below is complete.

#### All Degrees and Certificates

- Evidence of district-wide discipline communication
- Department minutes showing approval
- ⊠ Narrative *(see following page)*
- Transfer preparation documentation *(only if applicable)*

#### Degrees and Certificates of 8 Units or More with Vocational TOPs Codes

In addition to the above, all degrees and certificates of 8 units or more with a vocational TOPs code must include the following to be submitted to the State Chancellor's Office for approval.\*

Labor Market Information and Analysis (*Required for new programs and modifications.*)

Advisory Committee Recommendation (*Required for new programs and may be required for modifications*. *Check with the curriculum coordinator at your college to determine if a new recommendation is necessary.*) Regional Consortium Recommendation (*Required for new programs only.*)

\*Certificates between 8 and less than 16 units can be approved locally or can be submitted to the State Chancellor's Office for approval. Certificates of less than 8 units can only be approved locally. However, locally approved certificates will not appear on student transcripts.

## **Program Narrative**

#### Item 1. Program Goals and Objectives

Associate Degree of Science in Data Science provides students with a foundation in data analysis, in which students will model, synthesize, and present large data sets for business decision making. Courses will focus on the techniques and tools to extract data from various data sources, model, integrate data, and visualize data for organizational decision making and intelligence gathering. The program prepares students for entry-level jobs, or to help them advance into careers, such as Operation Data Analyst, Business Analytics Specialist, System Data Analyst, Data Visualization Developer, Test Data Analyst, and Market Research Analyst. Topics covered will include statistics, research methods, SQL queries, systems analysis, design, and applied predictive analytics.

#### **Program Learning Outcomes:**

Upon successful completion of this program, students should be able to:

- Identify, extract, clean and maintain data in databases.
- Interpret and evaluate data trends or patterns in complex data sets using statistical techniques, analytic methods, and tools.
- Create and monitor reports to preserve data quality, identify critical issues, trends, and potential solutions.

#### Item 2. Catalog Description

Associate Degree of Science in Data Science provides students with a foundation in data analysis, in which students will model, synthesize, and present large data sets for business decision making. Courses will focus on the techniques and tools to extract data from various data sources, model, integrate data, and visualize data for organizational decision making and intelligence gathering. The program prepares students for entry-level jobs, or to help them advance into careers, such as Operation Data Analyst, Business Analytics Specialist, System Data Analyst, Data Visualization Developer, Test Data Analyst, and Market Research Analyst. Topics covered will include statistics, research methods, SQL queries, systems analysis, design, and applied predictive analytics.

#### **Program Requirement:**

Before entering this program, student must complete MAT - 35 and MAT-10 or MAT-23 or qualifying placement level in mathematics to be successful in courses in the program.

#### **Program Learning Outcomes:**

Upon successful completion of this program, students should be able to:

• Identify, extract, clean and maintain data in databases.



- Interpret and evaluate data trends or patterns in complex data sets using statistical techniques, analytic methods, and tools.
- Create and monitor reports to preserve data quality, identify critical issues, trends, and potential solutions.

Course	Title	Units	Sequencing
CIS-1A	Introduction to Computer Information Systems	3	Semester 1
MAT- 70A/CIS-70A	Foundations of Data Science	3	Semester 1
CIS/CSC-61	Introduction to Database Theory	3	Semester 1
CIS-30A or CSC-8	Introduction to Python Programming or Programming Concepts: Python	3	Semester 1
MAT-70B	Statistics for STEM	4	Semester 2
MAT-1A or MAT-1AH	Calculus I / Honors Calculus I	4	Semester 2
CIS/CSC-63	Introduction to Structured Query Language (SQL)	3	Semester 2
MAT-1B	Calculus II	4	Semester 3
CIS-30E	Advanced Python Programming	3	Semester 3
MAT-1C	Calculus III	4	Semester 4
MAT-3	Linear Algebra	3	Semester 4

#### Required Courses: 37 units

#### Elective Courses: <u>3</u> units

Electric could	Elective courses. <u>-5</u> units				
Course	Title	Units	Sequencing		
CIS-68A or	Introduction to Machine Learning	3	Semester 3		
CIS-68B or	Big Data Fundamentals	3	Semester 3		
CIS/CSC-2 or	Fundamentals of Systems Analysis	3	Semester 4		
CSC-20	System Analysis and Design	3	Semester 4		

Total Program Units: <u>40</u> units

#### Item 3. Program Requirements

Course	Title	Units	Sequencing
CIS-1A	Introduction to Computer Information Systems	3	Semester 1
MAT- 70A/CIS-70A	Foundations of Data Science	3	Semester 1
CIS/CSC-61	Introduction to Database Theory	3	Semester 1
CIS-30A or CSC-8	Introduction to Python Programming or Programming Concepts: Python	3	Semester 1
MAT-70B	Statistics for STEM	4	Semester 2
MAT-1A	Calculus I	4	Semester 2
CIS/CSC-63	Introduction to Structured Query	3	Semester 2

Required Courses: <u>37</u> units

#### **Program Outline of Record – RIVERSIDE COMMUNITY Credit Degrees and Certificates** MORENO VALLEY COLLEGE | NORCO COLLEGE | RIVERSIDE CITY COLLEGE

	Language (SQL)		
MAT-1B	Calculus II	4	Semester 3
CIS-30E	Advanced Python Programming	3	Semester 3
MAT-1C	Calculus III	4	Semester 4
MAT-3	Linear Algebra	3	Semester 4

Elective Courses: 3 units

COLLEGE DISTRICT

Course	Title	Units	Sequencing
CIS-68A or	Introduction to Machine Learning	3	Semester 3
CIS-68B or	Big Data Fundamentals	3	Semester 3
CIS/CSC-2 or	Fundamentals of Systems Analysis	3	Semester 4
CSC-20	System Analysis and Design	3	Semester 4

Total Program Units: 40 units

The Associate of Science Degree in Data Science will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

Minimum Degree Units	Maximum Degree Units		
Minimum Required Units		Maximum Required Units	40
Minimum Elective Units		Maximum Elective Units	3
Local GE Required Units	27	CSUGE Required Units	39
Double Counted Units		Double Counted Units	3
Total Minimum Degree Units		Total Maximum Degree Units	76

#### **Item 4. Master Planning**

This degree will increase the diversity in Inland Empire workforce by providing technical training emphasis in Career Technical Education. This program will increase the diversity of student population in STEM, Computer Information Systems and Mathematics. It will allow student to transfer to UC or CSU to pursue a bachelor's degree in Data Science or related areas. The program will also improve the growth in special populations in STEM education, such as potentially increasing the population of female students and under-represented populations in the areas of STEM. The program is expected to have a steady growth after the initial year with program promotional outreach to local high schools and community centers.

#### **Item 5. Enrollment and Completer Projections**

Enrollment Projects for courses are as followed:

Required courses:

- CIS-1A: 49 students
- MAT-70A/CIS-70A: 49 students •
- MAT-70B: 49 students
- CIS/CSC-61: 49 students •
- CIS/CSC-63: 49 students •

- CIS-30A or CSC-8: 49 students
- CIS-68B: 49 students

MORENO VALLEY COLLEGE | NORCO COLLEGE | RIVERSIDE CITY COLLEGE

Electives:

- CIS-68A: 49 students
- CIS-68B: 49 students
- CIS-2: 49 students
- CIS-20: 49 students

This program is expected to have 50 to 100 students by Fall 2023.

#### Item 6. Place of Program in Curriculum/Similar Programs

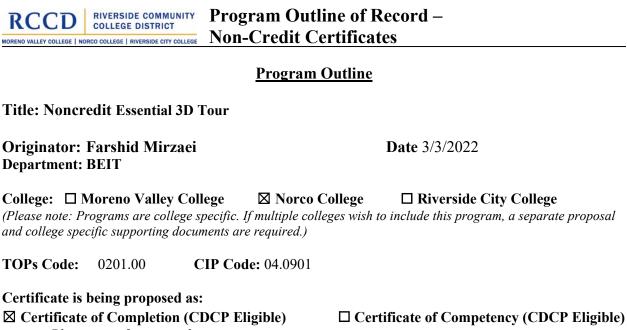
Most of the courses in the program are active courses that are currently offered at all three campuses in RCCD. The new courses will be incorporated into the program seamlessly. No other programs are similar or the same as the proposed Data Analytics program.

#### Item 7. Similar Programs at Other Colleges in Service Area

No other college in the region offers similar program. This program offers opportunities for students to acquire technical training that will help them build careers and contribute to Inland Empire socialeconomic improvement. It also provides local organizations access to a growing workforce and training resources for their incumbent workers.

#### Item 8. Transfer Preparation Information (if applicable)

Existing courses have been articulated for UC and CSU transfer. New courses can be articulated as transferrable courses at University of California Riverside, California State University San Bernardino, Cal-Poly Pomona and other institutions. The courses in this certificate can be used toward Associate Degree to Transfer for Data Science for UC and CSU.



*Please specify non-credit category:* 

Short-Term Vocational

□ English as a Second Language

□ Workforce Preparation

□ Elementary and Secondary Basic Skills

# Local Non-Credit Certificate (Not CDCP Eligible; Not Submitted to State Chancellor's Office)

Please specify non-credit category:	
□ Citizenship for Immigrants	□ Health and Safety
□ Parenting	□ Courses for Persons with Substantial Disabilities
□ Home Economics	□ Courses for Older Adults

This is a: ⊠ New non-credit certificate □ Modification to an existing non-credit certificate

# If this is a modification to an existing non-credit certificate, please specify the changes being made:

(Please be specific! Indicate any changes to title, description, learning outcomes, courses, contact hour values, etc.)

### **Rationale:**

To make this program available to a broader range of student and professionals who just need the training and increase the level of skills in the community.

# **Required Documentation**

Please submit this form and the documents outlined below to your college coordinator and the District Technical Review committee via TechReview@rccd.edu. Please do not submit your proposal until all of the documentation below is complete.

# All new and modified programs must include the following:

- □ Evidence of district-wide discipline communication
- Department minutes showing approval
- □ Narrative (See following page)



 
 RCCD
 RIVERSIDE COMMUNITY COLLEGE DISTRICT
 Program Outline of Record – Non-Credit Certificates

## **Program Narrative**

### Item 1. Program Goals and Objectives

Upon successful completion of the course, students should be able to demonstrate the following activities:

- 1. Read Architectural documents and blueprints
- 2. Prepare a visual 3D presentation inside or outside a building for potential clients

### Item 2. Catalog Description

The Essential 3D Tour program prepares students with the knowledge and skill in reading Architectural documents and blueprints with technics in presenting an existing building in a three-dimensional virtual tour for later remodeling or design. Students learn to set and use advanced building scanner/camera and drones in presenting spatial aspects of building in a virtual walkthrough or virtual fly around the building and landscapes.

### **Item 3. Program Requirements**

Building Scanner, Camera and virtual tour software will be provided by college. Students need a software access and a computer for home assignments.

Course	Title	Hours	Sequencing
CON-862	Blueprint Reading for Construction	162	Semester 1, Fall
ARE-863	3D Tour - VR, AR, MR and XR	117	Semester 2, Spring

Required Courses: <u>279</u> hours

Elective Courses: <u>0</u> hours

Course	Title	Hours	Sequencing
None			

Total Program Units: <u>279</u> hours

### Item 4. Master Planning

This certificate serves our students by providing a unique educational opportunity with cutting-edge technology to a diverse group of talents in creating job opportunity for students, entrepreneurs, and professionals who need to update their skills in the field.

#### **Program Outline**

#### **Title: Noncredit Essential Revit**

Originator: Farshid Mirzaei Department: BEIT **Date** 3/3/2022

**College:** I Moreno Valley College I Norco College Riverside City College (Please note: Programs are college specific. If multiple colleges wish to include this program, a separate proposal and college specific supporting documents are required.)

**TOPs Code:** 0201.00 **CIP Code:** 04.0901

	cate is being proposed as: tificate of Completion (CDCP Eligible Please specify non-credit category:	) Certificate of Competency (CDCP Eligible)
	⊠ Short-Term Vocational	□ Workforce Preparation
	□ English as a Second Language	Elementary and Secondary Basic Skills
🗆 Loca	al Non-Credit Certificate (Not CDCP) Please specify non-credit category:	Eligible; Not Submitted to State Chancellor's Office)
	□ Citizenship for Immigrants	□ Health and Safety
	□ Parenting	□ Courses for Persons with Substantial Disabilities
	□ Home Economics	□ Courses for Older Adults
This is	<b>a:</b> $\boxtimes$ New non-credit certificate	□ Modification to an existing non-credit certificate

#### If this is a modification to an existing non-credit certificate, please specify the changes being made:

(*Please be specific*! Indicate any changes to title, description, learning outcomes, courses, contact hour values, etc.)

#### **Rationale:**

To make this program available to a broader range of student and professionals who just need the training and increase the level of skills in the community.

### **Required Documentation**

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- Evidence of district-wide discipline communication
- Department minutes showing approval
- □ Narrative (See following page)



RCCD RIVERSIDE COMMUNITY COLLEGE DISTRICT MORENO VALLEY COLLEGE | NURCO COLLEGE | NURCSIDE CITY COLLEGE NOR-Credit Certificates

### **Program Narrative**

### Item 1. Program Goals and Objectives

Upon successful completion of the course, students should be able to demonstrate the following activities:

- 1. Prepare Architectural drawings including plan, elevation, roof using Autodesk Revit.
- 2. Prepare Architectural rendering, solar study and perspectives using Autodesk Revit

### Item 2. Catalog Description

This program prepares students with the knowledge and skill in using Autodesk Revit Architecture for building Information Modeling on computer to document building information and drawings with architectural details. Students learn to render their architectural design and present solar study using Revit.

## Item 3. Program Requirements

Software is free to students and college. Computer will be accessible by college. Students may use their home computer for homework.

Course	Title	Hours	Sequencing
ARE/DFT-824	Revit I-Architectural Drafting	117	Semester 1, Fall
ARE-825	Revit II-Advanced Architectural Drafting	117	Semester 2, Spring

Required Courses: 234 hours

Elective Courses: <u>0</u> hours

Course	Title	Hours	Sequencing
None			

Total Program Units: <u>234 hours</u>

# Item 4. Master Planning

This certificate serves our students by providing a unique educational opportunity with a cutting-edge technology to a diverse group of talents in creating job opportunity for students, entrepreneurs and professionals who need to update their skills in the architecture drafting field.

### **Program Outline**

#### **Title: Noncredit Essential CAD**

Originator: Farshid Mirzaei Department: BEIT **Date** 3/3/2022

**College:** Definition of the second s

**TOPs Code:** 0953.00 **CIP Code:** 15.1302

Certific	is being proposed as: ate of Completion (CDCP Eligible base specify non-credit category:	) Certificate of Competency (CDCP Eligible)
$\boxtimes$	Short-Term Vocational	□ Workforce Preparation
	English as a Second Language	Elementary and Secondary Basic Skills
	on-Credit Certificate (Not CDCP ] base specify non-credit category:	Eligible; Not Submitted to State Chancellor's Office)
	Citizenship for Immigrants	□ Health and Safety
	Parenting	□ Courses for Persons with Substantial Disabilities
	Home Economics	□ Courses for Older Adults
This is a:	⊠ New non-credit certificate	□ Modification to an existing non-credit certificate

### If this is a modification to an existing non-credit certificate, please specify the changes being made:

(<u>Please be specific</u>! Indicate any changes to title, description, learning outcomes, courses, contact hour values, etc.)

#### **Rationale:**

To make this program available to a broader range of student and professionals who just need the training and increase the level of skills in the community.

### **Required Documentation**

Please submit this form and the documents outlined below to your college coordinator and the District Technical Review committee via TechReview@rccd.edu. Please do not submit your proposal until all of the documentation below is complete.

#### All new and modified programs must include the following:

- Evidence of district-wide discipline communication
- Department minutes showing approval
- □ Narrative (See following page)



 
 RCCD
 RIVERSIDE COMMUNITY COLLEGE DISTRICT
 Program Outline of Record – Non-Credit Certificates

## **Program Narrative**

# Item 1. Program Goals and Objectives

Upon successful completion of the course, students should be able to demonstrate the following activities:

- 1. Prepare Two- and three-dimensional Computer Aided Design drawings and models.
- 2. Prepare drawings such as orthographic and auxiliary views, sections with standard annotation and details using a CAD program
- 3. Prepare virtual rendering for computer models using CAD program.

## Item 2. Catalog Description

This program prepares students with the knowledge and skill in using CAD to prepare complicated twoand three-dimensional geometric shapes and models used in Architecture and Mechanical industry. Students learn to render computer models and prepare CAD animation.

### **Item 3. Program Requirements**

Software is free to student. Computer and software access will be provided by college. Students may use their home computer for homework.

Course	Title	Hours	Sequencing
DFT/ENE-830	Computer Aided Design	108	Semester 1, Fall
DFT-831	Advanced Computer Aided Design	108	Semester 2, Spring

Required Courses: <u>216</u> hours

Elective Courses: <u>0</u> hours

Course	Title	Hours	Sequencing
None			

Total Program Units: <u>216</u> hours

### Item 4. Master Planning

This certificate serves our students by providing a unique educational opportunity with AutoCAD to a diverse group of talents in creating job opportunity for students, entrepreneurs and professionals who need to update their skills in the Mechanical or Industrial drafting field.

**Program Outline of Record –** RIVERSIDE COMMUNITY COLLEGE DISTRICT **Non-Credit Certificates** MORENO VALLEY COLLEGE | NORCO COLLEGE | RIVERSIDE CITY COLLEGE **Program Outline Title: Noncredit Essential Fusion 360 Originator:** Farshid Mirzaei **Date** 3/3/2022 **Department: BEIT** College: 
Moreno Valley College ⊠ Norco College □ Riverside City College (Please note: Programs are college specific. If multiple colleges wish to include this program, a separate proposal and college specific supporting documents are required.) **TOPs Code:** 0953.00 **CIP Code:** 50.0404 Certificate is being proposed as: ☑ Certificate of Completion (CDCP Eligible) □ Certificate of Competency (CDCP Eligible) *Please specify non-credit category:* Short-Term Vocational □ Workforce Preparation □ English as a Second Language □ Elementary and Secondary Basic Skills

#### Local Non-Credit Certificate (Not CDCP Eligible; Not Submitted to State Chancellor's Office)

Pleas	se specify non-credit category:	
□ Ci	tizenship for Immigrants	□ Health and Safety
🗆 Pa	renting	□ Courses for Persons with Substantial Disabilities
$\Box$ He	ome Economics	□ Courses for Older Adults
This is a:	⊠ New non-credit certificate	□ Modification to an existing non-credit certificate

# If this is a modification to an existing non-credit certificate, please specify the changes being made:

(Please be specific! Indicate any changes to title, description, learning outcomes, courses, contact hour values, etc.)

#### **Rationale:**

To make this program available to a broader range of student and professionals who just need the training and increase the level of skills in the community.

### **Required Documentation**

Please submit this form and the documents outlined below to your college coordinator and the District Technical Review committee via TechReview@rccd.edu. Please do not submit your proposal until all of the documentation below is complete.

#### All new and modified programs must include the following:

- □ Evidence of district-wide discipline communication
- Department minutes showing approval
- □ Narrative (See following page)



RCCD RIVERSIDE COMMUNITY COLLEGE DISTRICT Prog NORENO VALLEY COLLEGE | NORCO COLLEGE | RIVERSIDE CITY COLLEGE | NOR-

# **Program Narrative**

# Item 1. Program Goals and Objectives

Upon successful completion of the course, students should be able to demonstrate the following activities:

- 1. Prepare parametric three-dimensional solid models using Autodesk 360.
- 2. Prepare drawings such as orthographic and auxiliary views, sections with standard annotation and details using Fusion 360
- 3. Setup and build parts using additive and subtractive process through Fusion 360.

## Item 2. Catalog Description

The Essential Fusion 360 program prepares makers with the knowledge and skill in using Fusion360 to document mechanical drawings per ANSI standards. Students learn to render parts and assemblies with exploded view animation. Also, students learn to build parts using additive and subtractive process through Fusion 360.

## Item 3. Program Requirements

Software is free to student. Computer and software access will be provided by college. Students may use their home computer for homework.

Course	Title	Hours	Sequencing
DFT-862	Basic Fusion 360	117	Semester 1, Fall
DFT-863	Advanced Fusion 360	117	Semester 2, Spring

Required Courses: 234 hours

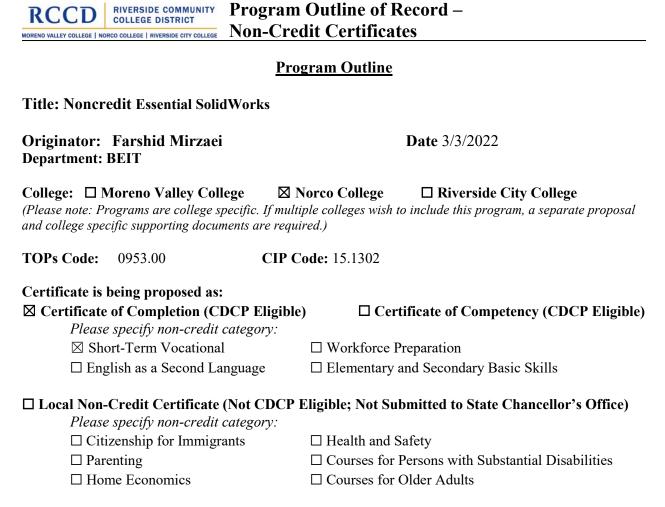
Elective Courses: <u>0</u> hours

Course	Title	Hours	Sequencing
None			

Total Program Units: <u>234</u> hours

# Item 4. Master Planning

This certificate serves our students by providing a unique educational opportunity with Fusion 360 to a diverse group of talents in creating job opportunity for students, entrepreneurs and professionals who need to update their skills in the Mechanical and industrial drafting field.



#### If this is a modification to an existing non-credit certificate, please specify the changes being made:

(<u>Please be specific</u>! Indicate any changes to title, description, learning outcomes, courses, contact hour values, etc.)

#### **Rationale:**

To make this program available to a broader range of student and professionals who just need the training and increase the level of skills in the community.

#### **Required Documentation**

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#### All new and modified programs must include the following:

- Evidence of district-wide discipline communication
- Department minutes showing approval
- □ Narrative (See following page)



RIVERSIDE COMMUNITY COLLEGE DISTRICT

# **Program Narrative**

# Item 1. Program Goals and Objectives

Upon successful completion of the course, students should be able to demonstrate the following activities:

- 1. Prepare parametric three-dimensional solid models
- 2. Prepare drawings such as orthographic and auxiliary views, sections with annotations and details using SolidWorks.
- 3. Prepare virtual rendering for mechanical parts, assemblies and animation using SolidWorks.

## Item 2. Catalog Description

The Essential SolidWorks program prepares students with the knowledge and skill in using Solidworks to document mechanical drawings per ANSI standards. Students learn to render parts and assemblies with exploded view animation.

## Item 3. Program Requirements

Software is free to student. Computer and software access will be provided by college. Students may use their home computer for homework.

Course	Title	Hours	Sequencing
DFT/ENE-842	SolidWorks I	108	Semester 1, Fall
DFT/ENE-842B	SolidWorks II	108	Semester 2, Spring

Required Courses: <u>216</u> hours

Elective Courses: <u>0</u> hours

Course	Title	Hours	Sequencing
None			

Total Program Units: <u>216</u> hours

# Item 4. Master Planning

This certificate serves our students by providing a unique educational opportunity with SolidWorks to a diverse group of talents in creating job opportunity for students, entrepreneurs and professionals who need to update their skills in the Mechanical or Industrial drafting field.