

**Articulation Agreement 2018-19**

The following tables are the assessments of the courses between College and Cogswell Polytechnical College. This table will be used in assessing official transcripts from College for transfer credit at Cogswell Polytechnical College.

To be considered for transfer, a course must be successfully completed with a grade of C or better. All coursework in this table will be considered lower division level.

These courses fulfill the competency requirements of the Cogswell Polytechnical College course shown; however, these courses may not fulfill the credit requirements for your program. To obtain an undergraduate degree at Cogswell Polytechnical College students are required to complete the courses specified (or their approved equivalent) as listed in the College Catalog.

Courses may change or be discontinued at any time at either College. The courses listed below are approved as of 2018.

*B.B.A. in Digital Media Management Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
BUS1A	Financial Accounting	4	BUS105	Financial Accounting	3
BUS2	Introduction to Business Law	3	BUS125	Business Law	3
BUS70	Introduction to Marketing	3	BUS141	Principles of Marketing	3
ECON1	Principles of Economics	3	BUS150	Principles of Economics	3
BUS1B	Managerial Accounting	4	BUS275	Managerial Accounting	3
BUS56	Human Resources Management	3	BUS280	Human Resources Management	3

*B.B.A. in Project Management Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
BUS1A	Financial Accounting	4	BUS105	Financial Accounting	3
BUS2	Introduction to Business Law	3	BUS125	Business Law	3
BUS70	Introduction to Marketing	3	BUS141	Principles of Marketing	3
ECON1	Principles of Economics	3	BUS150	Principles of Economics	3
BUS1B	Managerial Accounting	4	BUS275	Managerial Accounting	3
BUS56	Human Resources Management	3	BUS280	Human Resources Management	3

*B.S. in Computer Science Web and Mobile Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
CIS104	Survey of Programming Languages for the Web	3	CS115	Web Programming: HTML5, CSS and JavaScript	3
CIS36A	Java programming Language 1	4	CS212	Java Programming	4
CIS92	Fundamentals of Linux	4	CS221	Linux Programming Environment	3
CIS25	Object-Oriented Programming Using C++	4	CS285	C++ Programming: Object Oriented Programming	4
CIS27	Data Structures and Algorithms	4	CS295	Data Structures and Algorithms	4
MATH3B	Calculus II	5	MATH145	Calculus 2	4

MATH3C	Calculus III	5	MATH245	Calculus 3	3
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*B.S. in Computer Science: Software Engineering Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
CIS104	Survey of Programming Languages for the Web	3	CS115	Web Programming: HTML5, CSS and JavaScript	3
CIS36A	Java programming Language 1	4	CS212	Java Programming	4
CIS92	Fundamentals of Linux	4	CS221	Linux Programming Environment	3
CIS25	Object-Oriented Programming Using C++	4	CS285	C++ Programming: Object Oriented Programming	4
CIS27	Data Structures and Algorithms	4	CS295	Data Structures and Algorithms	4
MATH3B	Calculus II	5	MATH145	Calculus 2	4
MATH3C	Calculus III	5	MATH245	Calculus 3	3

*B.S. in Computer Science: Data Science Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
CIS104	Survey of Programming Languages for the Web	3	CS115	Web Programming: HTML5, CSS and JavaScript	3
			CS190	Digital Systems	3
CIS36A	Java programming Language 1	4	CS212	Java Programming	4
CIS92	Fundamentals of Linux	4	CS221	Linux Programming Environment	3
CIS25	Object-Oriented Programming Using C++	4	CS285	C++ Programming: Object Oriented Programming	4
CIS27	Data Structures and Algorithms	4	CS295	Data Structures and Algorithms	4
MATH3B	Calculus II	5	CS100	Introduction to Scripting: Python	3
MATH3C	Calculus III	5	MATH145	Calculus 2	4
CIS92	Fundamentals of Linux	4	MATH245	Calculus 3	3

*B.S. in Computer Science*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
CIS104	Survey of Programming Languages for the Web	3	CS115	Web Programming: HTML5, CSS and JavaScript	3
			CS190	Digital Systems	3
CIS36A	Java programming Language 1	4	CS212	Java Programming	4
CIS92	Fundamentals of Linux	4	CS221	Linux Programming Environment	3
CIS25	Object-Oriented Programming Using C++	4	CS285	C++ Programming: Object Oriented Programming	4
CIS27	Data Structures and Algorithms	4	CS295	Data Structures and Algorithms	4
MATH3B	Calculus II	5	MATH145	Calculus 2	4
MATH3C	Calculus III	5	MATH245	Calculus 3	3

*B.A. Digital Arts and Animation: 3D Animation Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
MMART165 & MMART165L Or	Fundamentals of Graphic Vis	2 1 3	ART100	2D Design 1	3

ART46	2D Visual Design			
MMART129 & MMART129L	Contemporary Color Contemporary Color Lab	2 1	ART105	Color Theory 3
MMART131 & MMART131L	Photoshop 1 Photoshop 1 Lab	2 1	DAA106	Digital Imaging Concepts 3
MM/DI002 Or ART20	Sketching Fundamentals for Design Beginning Drawing & Composition	3	ART110	Sketching 3
ART25 & ART26	Beginning Figure Drawing & Composition Continuing Figure Drawing & Composition	2 2	ART115	Figure Drawing 1 3
MMART150A or MMART150LA	Video Editing 1 Video Editing 1 Lab	3 3	DAA220	Video Editing 3
MMART191	3D Modeling for Animation and Game Design	3	DAA240	Introduction to 3D Modeling 3
MMART188	Intro to 3D Animation 1	3	DAA244	Introduction to 3D Animation Principles 3
MMART178	Drawing for Animation	3	DAA264	Drawing Animation 1 3
MMART186 & MMART186L	Introduction to 2D Digital Animation Introduction to 2D Digital Animation Lab	3	DAA265	2D Animation 1 3
MMART192	3D Rigging for Animation and Game Design	3	DAA267	Character Rigging 3
BUS2	Intro to Business Law	3	BUS125	Business Law 3

*B.A. Digital Arts and Animation: 3D Modeling Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
MMART165 & MMART165L Or ART46	Fundamentals of Graphic Vis Fundamentals of Graphic Vis Lab 2D Visual Design	2 1 3	ART100	2D Design 1	3
MMART129 & MMART129L	Contemporary Color Contemporary Color Lab	2 1	ART105	Color Theory	3
MMART131 & MMART131L	Photoshop 1 Photoshop 1 Lab	2 1	DAA106	Digital Imaging Concepts	3
MMART164 & MMART164L	Introduction to Web Design Introduction to Web Design Lab	2 1	DAA109	Web Design	3
MM/DI002 Or ART20	Sketching Fundamentals for Design Beginning Drawing & Composition	3	ART110	Sketching	3
ART25 & ART26	Beginning Figure Drawing & Composition Continuing Figure Drawing & Composition	2 2	ART115	Figure Drawing 1	3
ART50	Beginning Painting	3	ART120	Traditional Painting	3
MMART150A or MMART150LA	Video Editing 1 Video Editing 1 Lab	3 3	DAA220	Video Editing	3
MMART191	3D Modeling for Animation and Game Design	3	DAA240	Introduction to 3D Modeling	3
MMART192	3D Rigging for Animation and Game Design	3	DAA267	Character Rigging	3
BUS2	Intro to Business Law	3	BUS125	Business Law	3

*B.A. Digital Arts and Animation: Entertainment Design Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
MMART165 & MMART165L Or ART46	Fundamentals of Graphic Vis  Fundamentals of Graphic Vis Lab  2D Visual Design	2  1  3	ART100	2D Design 1	3
MMART129 & MMART129L	Contemporary Color Contemporary Color Lab	2 1	ART105	Color Theory	3
MMART164 & MMART164L	Introduction to Web Design Introduction to Web Design Lab	2 1	DAA109	Web Design	3
MM/DI002 Or ART20	Sketching Fundamentals for Design  Beginning Drawing & Composition	3	ART110	Sketching	3
ART25 & ART26	Beginning Figure Drawing & Composition Continuing Figure Drawing & Composition	2 2	ART115	Figure Drawing 1	3
ART50	Beginning Painting	3	ART120	Traditional Painting	3
ART30 & ART31	Beginning Figure Drawing: Anatomy Continuing Figure Drawing: Anatomy	2 2	ART210	Figure Drawing 2	3
MMART131 & MMART131L	Photoshop 1 Photoshop 1 Lab	2 1	DAA106	Digital Imaging Concepts	3
MMART150A or MMART150LA	Video Editing 1  Video Editing 1 Lab	3 3	DAA220	Video Editing	3
MMART191	3D Modeling for Animation and Game Design	3	DAA240	Introduction to 3D Modeling	3
BUS2	Intro to Business Law	3	BUS125	Business Law	3

*B.A. Digital Arts and Animation: Technical Art Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
MMART165 & MMART165L Or ART46	Fundamentals of Graphic Vis  Fundamentals of Graphic Vis Lab  2D Visual Design	2  1  3	ART100	2D Design 1	3
MMART129 & MMART129L	Contemporary Color Contemporary Color Lab	2 1	ART105	Color Theory	3
MMART133A & MMART133LA	Digital Photography 1 & Digital Photography 1 Lab	2 1	ART108	Introduction to Photography	3
MM/DI002 Or ART20	Sketching Fundamentals for Design  Beginning Drawing & Composition	3	ART110	Sketching	3
ART25 & ART26	Beginning Figure Drawing & Composition Continuing Figure Drawing & Composition	2 2	ART115	Figure Drawing 1	3
MMART131 &	Photoshop 1	2	DAA106	Digital Imaging Concepts	3

MMART131L	Photoshop 1 Lab	1			
MMART150A or MMART150LA	Video Editing 1 Video Editing 1 lab	3 3	DAA220	Video Editing	3
MMART191	3D Modeling for Animation and Game Design	3	DAA240	Introduction to 3D Modeling	3
MMART188	Intro to 3D Animation 1	3	DAA244	Introduction to 3D Animation Principles	
MMART192	3D Rigging for Animation and Game Design	3	DAA267	Character Rigging	3
BUS2	Intro to Business Law	3	BUS125	Business Law	3
CIS 25	Object-oriented Programming using C++	4	CA285	C++ Programing: Object Oriented Programming	4

*B.S. Digital Audio Technology: Audio Software Development and Engineering Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
CIS25	Object-Oriented Programming Using C++	4	CS285	C++ Programming: Object-Oriented Programming	4
CIS27	Data Structures and Algorithms	4	CS295	Data Structures and Algorithms	4
MATH3B	Calculus II	5	MATH145	Calculus 2	4
MATH3C	Calculus III	5	MATH245	Calculus 3	3

*B.A. Game Design Art: Game Art Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
MMART165 & MMART165L Or ART46	Fundamentals of Graphic Vis Fundamentals of Graphic Vis Lab 2D Visual Design	2 1 3	ART100	2D Design	3
MMART129 & MMART129L	Contemporary Color Contemporary Color Lab	2 1	ART105	Color Theory	3
MM/DI002 Or ART20	Sketching Fundamentals for Design Beginning Drawing & Composition	3	ART110	Sketching	3
ART25 & ART26	Beginning Figure Drawing & Composition Continuing Figure Drawing & Composition	2 2	ART115	Figure Drawing	3
MMART131 & MMART131L	Photoshop 1 Photoshop 1 Lab	2 1	DAA106	Digital Imaging Concepts	3
MMART191	3D Modeling for Animation and Game Design		DAA240	Introduction to 3D Modelling	3
MMART188	Intro to 3D Animation 1	3	DAA244	Introduction toe 3D Animation Principles	3
MMART192	3D Rigging for Animation and Game Design	3	DAA267	Character Rigging	3
MMART175B	Game Design	3	GAM295	Game Design 1	3

*B.A. Game Design Art: Game Writing Concentration*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
MMART175B	Game Design	3	GAM295	Game Design 1	3
MMART165 &	Fundamentals of Graphic Vis	2	ART100	2D Design	3

MMART165L	Fundamentals of Graphic Vis Lab	1			
Or					
ART46	2D Visual Design	3			
ENG10A	Creative Writing	3	ENG228	Creative Writing	3
MMART111A	Narrative Scriptwriting	3	ENG227	Scriptwriting	3
HUM21	Film Art and communication	3	HUM227	Film History	3
MMART191	3D Modeling for Animation and Game Design	3	DAA240	Introduction to 3D Modeling	3

*B.S. Game Design Engineering*

Berkeley City College			Cogswell Polytechnical College		
Course Code	Course Title	Sem. Credit	Course Code	Course Title	Sem. Units
MMART175B	Game Design	3	GAM295	Game Design 1	3
MMART165	Fundamentals of Graphic Vis &	2	ART100	2D Design	3
MMART165L	Fundamentals of Graphic Vis Lab	1			
Or					
ART46	2D Visual Design	3			
MMART129	Contemporary Color	2	ART105	Color Theory	3
&					
MMART129L	Contemporary Color Lab	1			
MM/DI002	Sketching Fundamentals for Design	3	ART110	Sketching	3
Or					
ART20	Beginning Drawing & Composition				
MMART191	3D Modeling for Animation and Game Design	3	DAA240	Introduction to 3D Modeling	3
MMART192	3D Rigging for Animation and Game Design	3	DAA267	Character Rigging	3
MATH3B	Calculus II	5	MATH145	Calculus 2	4
CIS25	Object-Oriented Programming Using C++	4	CS285	C++ Programming: Object Oriented Programming	4
CIS27	Data Structures and Algorithms	4	CS295	Data Structures and Algorithms	4

For further information on Course Descriptions and Major Prerequisites visit <http://www.cogswell.edu/academics/catalog.php>

**General Education Transfer of Credit Articulation Agreement: 2018-19 Catalog**

The following tables describe how courses will be awarded to meet Cogswell Polytechnical College's general education requirements. This agreement will be used in assessing official transcripts from Berkeley City College for transfer credit at Cogswell Polytechnical College.

To be considered for transfer, a course must be successfully completed with a grade of C or better. All coursework in this table will be considered lower division level.

These courses fulfill the competency requirements of the Cogswell Polytechnical College course shown; however, these courses may not fulfill the credit requirements for your program. To obtain an undergraduate degree at Cogswell Polytechnical College students are required to complete the courses specified (or their approved equivalent) as listed in the College Catalog.

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**Basic Skills – 9 Units in 3 Areas\*  
IGETC Area 1**

\*Students must complete one (1) course in each area: i.e., Written Communication, Oral Communication, Critical Thinking

College			Cogswell Polytechnical College		
Course Code	Course title	Sem credits	Course Code	Course title	
<b>Area: Written Communication</b>					
ENGL001A	Composition and Reading	4	ENG100	ENG100 English Composition	3
<b>Area: Critical Thinking</b>					
ENGL5 or COMM5	Critical Thinking in Reading and Writing Persuasion and Critical thinking	3 3	ENG105	Critical Reading, Thinking and Writing	3
<b>Area: Oral Communication</b>					
COMM3 or COMM4 or COMM20 or COMM45	Introduction to Human Communication The Dynamics of Group Discussion Interpersonal Communication Skills Public Speaking	3 3 3 3	ENG250	Speech and Oral Communication	3

**Humanities & Arts – 9 Units in 3 Areas\*  
IGETC Area 3**

Students must complete one (1) course in each area: i.e., Art, Letters, Written Communication II

College			Cogswell College		
Course Code	Course title	Sem. Credit	Course Code	Course Title	Credit
<b>Area: Art</b>					
ART1	Introduction to Art History	3	HUM120	The Nature and History of Western Art	
ART2	History of Western Art: Prehistory through the Middle Ages	3		No equivalent course	
ART3	History of Western Art: Renaissance to Contemporary Art	3		No equivalent course	
ART4	History of Modern Art	3		No equivalent course	
ART13	History of Woman in Art	3		No equivalent course	
ART116	Introduction of Islamic Art	3		No equivalent course	
ART182	Introduction to Visual Culture	3		No equivalent course	
ENGL21	Film Criticism and Analysis	3		No equivalent course	
HUMAN21	Film: Art and Communication	3		No equivalent course	

HUMAN26	Global Cinema	3	No equivalent course
HUMAN52	Women and Cinema	4	No equivalent course
HUMAN53	Comparative Film Genres	4	No equivalent course
HUMAN182	Introduction to Visual Culture	3	No equivalent course
MUSIC10	Music Appreciation	3	No equivalent course
MUSIC15A	Jazz, Blues and Popular Music in American Culture	3	No equivalent course
MUSIC15B	Jazz, Blues and Popular Music in American Culture	3	No equivalent course
MUSIC24	Jazz History	3	No equivalent course
WS52	Women and Cinema	3	No equivalent course
<b>Area: Letters</b>			
ENGL17B	Shakespeare	3	No equivalent course
ENGL20	Introduction to Dramatic Literature	3	No equivalent course
ENGL50	Multicultural American Literature	3	No equivalent course
ENGL85A	Literature in English through Milton	4	No equivalent course
ENGL85B	Literature in English: Late 17 <sup>th</sup> Century through Mid-19 <sup>th</sup> Century	4	No equivalent course
ENGL85C	Literature in English: Mid-19 <sup>th</sup> Century through the 20 <sup>th</sup> Century	4	No equivalent course
HIST33	History of Native American thought and Literature	3	No equivalent course
HUMAN1	Introduction to Humanities	3	No equivalent course
HUMAN5	Storytelling in American Culture	3	No equivalent course
HUMAN15	Popular Culture	3	No equivalent course
HUMAN30A	Human Value/Ethics	3	No equivalent course
HUMAN30B	Human Value/Aesthetics	3	No equivalent course
HUMAN40	Religions of the World	3	No equivalent course
HUMAN55	The Representation of Immigration in Cinema and Television	4	No equivalent course
HUMAN57	Film Directors and Artists	4	No equivalent course
HUMAN182	Introduction to Visual Culture	3	No equivalent course
M/LAT30A	Survey of Latin-American films	3	No equivalent course
M/LAT30B	Survey of Latin American Films	3	No equivalent course
PHIL1	Introduction to Philosophy	3	No equivalent course
PHIL2	Social and Political Philosophy	3	No equivalent course
PHIL16	Buddhist Philosophy	3	No equivalent course
PHIL20A	History of Ancient Greek Philosophy	3	No equivalent course
PHIL20B	History of Modern European Philosophy	3	No equivalent course
PHIL31A	Human Values/Ethics	3	No equivalent course
PHIL35	Feminist Philosophy	3	No equivalent course
PHIL37	Introduction to Asian Philosophy	3	No equivalent course
SPAN39	Latin American Novel	3	No equivalent course
SPAN40	Hispanic Civilization and Culture	3	No equivalent course
WS35	Feminist Philosophy	3	No equivalent course
<b>Area: Written Communication II</b>			
ENGL10A	Creative Writing	3	ENG228 Creative Writing 3
ENGL10B	Creative Writing	3	ENG228 Creative Writing 3
ENGL14	Non-fiction Writing	3	No equivalent course
ENGL47	Children's Literature	3	No equivalent course

**Social Sciences – 9 Units in 3 Areas\***  
**IGETC Area 4**

Students must complete one (1) course in each area (i.e., Human Behavior, Comparative Systems, and Social Issues)

College		Cogswell College			
Course Code	Course title	Sem. Credit	Course Code	Course Title	Credit
<b>Area: Human Behavior</b>					
HUMAN55	The Representation of Immigration in Cinema and Television	4		No equivalent course	
PSYCH1A	Introduction to General Psychology	3		No equivalent course	
PSYCH6	Social Psychology	3		No equivalent course	



PSYCH10	Psychology and Life: Basic Principles	3	No equivalent course
PSYCH21	Lifespan Human Development	3	No equivalent course
CHDEV51	Child Growth and Development	3	No equivalent course
		3	No equivalent course
			No equivalent course
<b>Area: Comparative Systems</b>			
ETHST1	Introduction to Ethnic Studies	3	No equivalent course
GEOG2	Cultural Geography	3	No equivalent course
GEOG3	World Regional Geography	3	No equivalent course
HIST1	American Indian History and Culture	3	No equivalent course
HIST2A	History of European Civilization	3	No equivalent course
HIST2B	History of European civilization	3	No equivalent course
HIST3A	World History to 1500	3	No equivalent course
HIST3B	Modern World History: 1500 - Present	3	No equivalent course
HIST7A	History of the United States to 1877	3	No equivalent course
HIST7B	History of the United States since 1865	3	No equivalent course
HIST8B	History of Latin American Civilization	3	No equivalent course
HIST19	History of California	3	No equivalent course
HIST21	U.S. Women: A Social History	3	No equivalent course
HIST31	Contemporary Middle East: Politics of Nationalism	3	No equivalent course
HIST32	The United States Since 1945	3	No equivalent course
POSCI1	Government and Politics in the United States	3	No equivalent course
POSCI2	Comparative Government	3	No equivalent course
POSCI3	International Relations	3	No equivalent course
POSCI4	Political Theory	3	No equivalent course
POSCI6	The U.S. Constitution and Criminal Due Process	3	No equivalent course
POSCI19	Introduction Global Studies	3	No equivalent course
POSCI20	Global Issues	3	No equivalent course
SOC6	Comparative Social Movements	3	No equivalent course
ANTHR2	Introduction to Archaeology and Prehistory	3	No equivalent course
<b>Area: Social Issues</b>			
HIST1	American Indian History and Culture	3	No equivalent course
HIST2A	History of European Civilization	3	No equivalent course
HIST2B	History of European civilization	3	No equivalent course
HIST3A	World History to 1500	3	No equivalent course
HIST3B	Modern World History: 1500 - Present	3	No equivalent course
HIST7A	History of the United States to 1877	3	No equivalent course
HIST7B	History of the United States since 1865	3	No equivalent course
HIST8B	History of Latin American Civilization	3	No equivalent course
HIST19	History of California	3	No equivalent course
HIST21	U.S. Women: A Social History	3	No equivalent course
HIST31	Contemporary Middle East: Politics of Nationalism	3	No equivalent course
HIST32	The United States Since 1945	3	No equivalent course
SOCSC2	Introduction to Diversity Issues	3	No equivalent course
SOC1	Introduction to Sociology	3	No equivalent course
SOC2	Social Problems	3	No equivalent course
SOC5	Minority Groups	3	No equivalent course
SOC7	Sociology of Gender	3	No equivalent course
SOC8	Crime and Deviance	3	No equivalent course
SOC13	Sociology of the Family	3	No equivalent course
SOC18	Sociology of Death and Dying	3	No equivalent course
WS1	Introduction to Women's Studies	3	No equivalent course
ANTHR3	Introduction to Social and Cultural Anthropology	3	No equivalent course
ANTHR13	Urban Anthropology	3	No equivalent course
ANTHR18	Introduction to Anthropological Linguistics	3	No equivalent course
ANTHR55	Native American cultures	3	No equivalent course

**Mathematics & The Sciences for Non-Engineering – 9 Units in 2 Areas\***  
**ICTEC Area 2 & 5**

\*Students must complete one (1) course in each area (i.e., Mathematical Concepts and Quantitative Reasoning, Physical and Biological Sciences) and complete a second Physical and Biological Science course to meet credit requirement.

College			Cogswell College		
Course Code	Course title	Sem. Credit	Course Code	Course Title	Credit

**Area: Mathematical Concepts & quantitative Reasoning**

MATH1	Pre Calculus	4	MATH116	PreCalculus	4
MATH2	Pre-Calculus with Analytic Geometry	5	MATH143	Calculus	4

**Area: Physical & Biological Sciences**

PHYS3A	General Physics	5	SCI101	Basic Physics 1	3
PHYS3B	General Physics	5	SCI102	Basic Physics 2	3
PHYS4A	General Physics with Calculus	5		No equivalent course	
PHYS4B	General Physics with Calculus	5		No equivalent course	
PHYS4C	General Physics with Calculus	5		No equivalent course	
ANTHR1	Introduction to Physical Anthropology	3		No equivalent course	
& ANTHR1L	Introduction to Physical Anthropology Lab	1			
BIOL1A	General Biology	5		No equivalent course	
BIOL1B	General Biology	5		No equivalent course	
BIOL3	Microbiology	3		No equivalent course	
BIOL10	Introduction to Biology	4		No equivalent course	
BIOL13	Principles of Ecology	3		No equivalent course	
& BIOL13L	Principles of Ecology and Sustainable Systems Lab	1			
CHEM1A	General Chemistry	5		No equivalent course	
CHEM1B	General Chemistry	5		No equivalent course	
CHEM12A	Organic chemistry	5		No equivalent course	
CHEM12B	Organic chemistry	5		No equivalent course	
CHEM18	Analytic Instrumentation	3		No equivalent course	
CHEM30A	Introductory General Chemistry	4		No equivalent course	
CHEM30B	Introductory Organic and Biochemistry	4		No equivalent course	
GEOG1	Physical Geography	3		No equivalent course	
& GEOG1L	Physical Geography Lab	1			
GEOL10	Introduction to Geology	3		No equivalent course	
& GEOL10L	Introduction to Geology Lab	1			

**Mathematics & The Sciences for-Engineering – 10 Units in 2 Areas\***  
**ICTEC Area 2 & 5**

\*Students must complete one (1) course in each area (i.e., Mathematical Concepts and Quantitative Reasoning, Physical and Biological Sciences) and complete a second Physical and Biological Science course to meet credit requirement.

College			Cogswell College		
Course Code	Course title	Sem. Credit	Course Code	Course Title	Credit

**Area: Mathematical Concepts & quantitative Reasoning**

MATH3A	Calculus 1	5	MATH143	Calculus 1	4
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**Area: Physical & Biological Sciences**

PHYS4A	General Physics with Calculus	5	SCI145	College Physics 1	4
PHYS4B	General Physics with Calculus	5	SCI105	College Physics 2	3

\*\*PHYSICAL & BIOLOGICAL SCIENCES: Students in a Digital Audio Technology program who have not completed a physics course will be required to take a physics course to meet pre-requisite coursework for secondary science course in program of study.

**Area: Mathematical Concepts & Quantitative Reasoning**

**Area: Physical & Biological Sciences\*\***

\*\*PHYSICAL & BIOLOGICAL SCIENCES: Students in an engineering program may have different additional mathematic and sciences

requirements. Those students should consult with the Program Director or review the curriculum outline for Cogswell Polytechnical College.

\*\*\*Additional mathematic courses are required for engineering students. Not included in the overall calculation of 10 credits  
For further information on Course Descriptions and Major Prerequisites visit <http://www.cogswell.edu/academics/catalog.php>  
More information on West Valley College visit <http://westvalley.edu/catalog/>

Articulation Agreement Updated: 11/27/20118

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