



Cogswell

Polytechnical College

Catalog Addendum

Effective January 2015

1175 Bordeaux Drive
Sunnyvale, CA 94089
www.cogswell.edu

For more information about our graduation rates, the median debt of students that completed the program, and other important information, please visit our website at <http://www.cogswell.edu/about/disclosures.php>.

The Catalog Addendum is not a standalone document and must be accompanied by the most current version of the 2013-2015 catalog. It serves as notification of corrections to content and changes to college policy, programs, courses, admission and graduation requirements and staff updates which have occurred since the catalog was published.

Disclaimers & Disclosures Addendum

Page 2

Catalog Disclaimer

This catalog is intended to provide general information to students and prospective students. The College reserves the right to make changes to this catalog to reflect changes to federal and state regulations and any other changes the College deems necessary which may be in the form of an addendum.

Facility Addendum

Page 11

Cogswell College is conveniently housed in one large 65,000 square foot, single story building, supporting our culture of collaboration and the fusion of arts and engineering. The College also has free parking and within distance from bus routes and VTA light rail.

All classes (with exception of online) are held at Cogswell College. Our cutting edge facilities make it possible to create games, render and animate short films, develop complex computer software, track, edit, mix and master soundtracks, and more – all while collaborating with peers and faculty.

Location:

1175 Bordeaux Drive
Sunnyvale, CA 94089
Website | www.cogswell.edu
Telephone | 408-498-5100 / 800-264-7955

Facility Hours:

- Mon – Thurs. 9:00 AM – 6:00 PM
- Fri 8:00 AM – 5:00 PM
- Sat 9:00 AM – 1:00 PM
- Sun Closed

Academic Calendars Addendum

Page 14

Undergraduate Academic Calendars

Spring 2015 Semester On-Campus

October 1, 2014 – Registration begins
November 28, 2014 - Registration deadline
December 1, 2014 - Late registration fees start
January 15, 2015 - New student orientation
January 19, 2015 - Martin Luther King Day
January 20, 2015 - First day of classes
January 23, 2015 - Last day to ADD classes
January 30, 2015 - Last Day to DROP classes
February 16, 2015 - President's Day
February 20, 2015 - Spring Graduation Applications due
March 2-7, 2015 - Midterm week
March 11, 2015 – Midterm grades due from faculty
March 16-21, 2015 - Spring Break
April 3, 2015 - Last day to WITHDRAW from class
May 9, 2015 - Last day of classes
May 13, 2015 – Final grades due from faculty
May 16, 2015 - Commencement Ceremony

Summer 2015 Semester On-Campus

March 2, 2015 - Registration begins
May 1, 2015 - Registration deadline
May 4, 2015 - Late registration fees start
May 21, 2015 - New Student Orientation
May 25, 2015 - Memorial Day
May 26, 2015 - First day of classes/HS Summer Program
June 5, 2015 - Last day to add/drop classes
July 3-4, 2015 - Independence Day
July 6-11, 2015 - Midterm week
July 15, 2015 – Midterm grades due from faculty
July 24, 2015 - Last day to withdraw from classes
July 27-Aug 2, 2015 – Summer Break
August 22, 2015 - Last day of classes/HS Summer Program
August 26, 2015 – Final grades due from faculty

Fall 2015 Semester On-Campus

March 2, 2015 - Registration Begins
August 7, 2015 - Registration and tuition deadline
August 10, 2015 - Late registration fees start
August 27, 2015 - In-state new student orientation
September 3, 2015 - Out-of-state new student orientation
September 7, 2015 - Labor Day
September 8, 2015 - First day of classes
September 11, 2015 - Last day to ADD classes
September 18, 2015 - Last day to DROP classes
September 30, 2015 - Fall Graduation Applications due
October 19-24, 2015 - Midterm week
October 28, 2015 – Midterm grades due from faculty
November 13, 2015 - Last day to WITHDRAW from classes
November 26-27, 2015 - Thanksgiving Break
December 19, 2015 - Last day of classes
December 23, 2015 – Final grades due from faculty
December 24, 2015- January 1, 2016 Winter Break

Spring 2015 Semester Online

October 1, 2014 – Registration begins
November 28, 2014 - Registration deadline
December 1, 2014 - Late registration fees start
January 15, 2015 - New student orientation
January 19, 2015 – Classes begin
January 25, 2015 - Last day to Add/Drop classes
February 9-15, 2015 – Midterm week
February 18, 2015 - Midterm grades due from faculty
February 20, 2015 - Spring Graduation Applications due
February 22, 2015 - Last day to withdraw from class
March 15, 2015 – Last day of classes
March 18, 2015 – Final grades due from faculty

Summer 2015 Semester Online

March 2, 2015 - Registration begins
May 1, 2015 - Registration deadline
May 4, 2015 - Late registration fees start
May 21, 2015 - New Student Orientation
May 25, 2015 - First day of classes
May 31, 2015 - Last day to add/drop classes
June 15-21, 2015 - Midterm week
June 24, 2015 – Midterm grades due from faculty
June 28, 2015 - Last day to withdraw from classes
July 19, 2015 - Last day of classes
July 22, 2015 – Final grades due from faculty

Fall 2015 Semester Online

March 2, 2015 - Registration Begins
August 7, 2015 - Registration and tuition deadline
August 10, 2015 - Late registration fees start
August 27, 2015 - In-state new student orientation
September 3, 2015 - Out-of-state new student orientation
September 7, 2015 - First day of classes
September 13, 2015 - Last day to Add/Drop classes
September 30, 2015 - Fall Graduation Applications due
September 28-October 4, 2015 - Midterm week
October 17, 2015 – Midterm grades due from faculty
October 12, 2015 - Last day to WITHDRAW from classes
November 1, 2015 - Last day of classes
November 4, 2015 – Final grades due from faculty

Graduate Academic Calendar 2015 **Spring 2015 Semester Online**

Session A

October 1, 2014 – Registration begins
December 12, 2014 –Registration deadline
December 15, 2014 –Late registration fees start
January 12, 2015 – First day of Session A classes
January 16, 2015 – Last day to add/drop classes
January 19, 2015 – Martin Luther King Day
February 2, 2015 – Midterm week
February 13, 2015 – Last day to withdraw from class
February 16, 2015 – President’s Day
March 8, 2015 – Last day of Session A classes
March 9-15, 2015 –Spring Break 2015

Session B

March 16, 2015 – First day of Session B classes
March 20, 2015 – Last day to add/drop classes
April 6, 2015 – Midterm week
April 17, 2015 – Last day to withdraw from class
May 10, 2015 – Last day of Session B classes
May 16, 2015 – Commencement Ceremony
May 25, 2015 – Memorial Day

Summer 2015 Semester Online

March 2, 2015 –Registration begins
May 8, 2015 –Registration deadline
May 11, 2015 –Late registration fees start
June 8, 2015 – First day of summer session
June 12, 2015 – Last day to add/drop classes
June 29, 2015 – Midterm week
July 3-4, 2014 – Independence Day
July 10, 2015 – Last day to withdraw from class
August 2, 2015 – Last day of Summer Session

Fall 2015 Semester Online

Session A

March 2, 2015 – Registration begins
July 31, 2015 – Registration deadline
August 3, 2015 – Late registration fees start
August 31, 2015 – First day of Session A
September 4, 2015 – Last day to add/drop classes
September 7, 2015 – Labor Day
September 21, 2015 – Midterm week
October 4, 2015 – Last day to withdraw from classes
October 25, 2015 – Last day of Session A

Session B

October 26, 2015 – First day of Session B classes
October 30, 2015 – Last day to add/drop classes
November 16, 2015 – Midterm week
November 25, 2015 – Last day to withdraw from classes
November 26-27, 2015 – Thanksgiving Day
December 20, 2015 – Last day of Session B
December 24, 2015 – January 1, 2016 - Winter Break

Personnel Addendum

Page 11

Remove from College Administrators:

Beth Violette, Director of Regulatory and Administrative Affairs
Rejino Castaneda, Vice President of Finance and Administration

Add/Edit to College Administrators:

Kenneth Banks, Senior Vice President of Finance and Accounting
Milla Zlatanov, Executive Director of Institutional Research and Quality Assurance
Nikki Love, Director of Compliance and Director of Career Services

General Policies and Procedures Addendum

Page 19-27

Application Procedures (revised)

Applicants for admissions must submit the following to the Admissions Office:

1. Interview with a College admissions advisor,

2. A completed application form,
3. An essay from the applicant which describes his/her interest in Cogswell College's educational programs,
4. A completed recommendation form or recommendation letter
5. An official high school transcript, or an official report of scores earned on the General Educational Development (GED) test, or proof of completion in a home school program,
6. A portfolio of original work for the Digital Arts and Animation (DAA), Digital Audio Technology (DAT), Game Design Art (GDA), and Digital Media Management programs, where applicable,
7. Complete placement tests in Mathematics, English and Music Theory, if applicable, to assess the competency level of each subject. Placement tests may be waived.

Subject	Passing Scores Engineering	Subject	Passing Scores Non-Engineering
English	70%	English	70%
Mathematics*	75% Online Test 70% Paper-based Test	Mathematics	65% Online Test 70% Paper-based Test
Music Theory	N/A	Music Theory	60% for DAT Non-Engineering

* Engineering students that score between 40-74% on the online, or 30-69% on the paper-based test, will be placed in MATH116. Engineering students that score 39% or less on the online, or 29% or less on the paper-based test, will be placed in remedial MATH003.

Requirements for Visitor Students (revised)

Visitors may register for classes by submitting:

1. A completed Visitor Registration Form
2. Pay the appropriate tuition prior to class start.

Current matriculated students have priority seating and visitors will be registered one (1) week prior to the semester. A visitor may only attend Cogswell Polytechnical College for up to 12 semester credits. In certain circumstances visitors may appeal the limit to Dean of College.

A Visitor may decide to apply to a degree-seeking status upon completion of admission requirements as listed in the current Catalog and Addendum.

Requirements for Auditing Students (revised)

Students will need to complete a registration form in-person available at the Registrar's Office. Students may then interview with faculty or Program Director for approval prior to registration. Form must be submitted to Registrar's Office for processing after fees have been met with the Financial Aid/Business Office and approval from faculty members has been received.

Students will be responsible to pay the audit fee, textbooks and supplies, if applicable. Refer to the Financial Information section for prices.

Students may not register into the same course for credit that has been previously audited. Once students register into courses in an audit status cannot change to any other status.

Requirements for Readmission (revised)

Students that have withdrawn/dropped from the College for 12 months or more since their last day of attendance must reapply by following the application procedures for admissions, as listed in this Catalog.

Students that have withdrawn/dropped from the College less than 12 months since their last day of attendance may request in writing to be readmitted. The request must address the reason(s) student stopped attending and include an action plan student will follow to ensure satisfactory completion of their program of study, if applicable.

In either scenario, if readmitted, students will return under any current academic, admission, curricula, academic procedures, and degree plans listed in the College Catalog and/or Addendum.

Requirements for International Students (revised)

Cogswell College welcomes students from other countries. International students must complete their Cogswell College application in time to process required documents with the United States Citizenship and Immigration Services (USCIS). International students may enroll as full-time students only. Applicants are to submit the following application materials to the Admissions Office, attention Designated School Official (DSO):

1. A completed application
2. An official transcript from each college attended. Applicants must have transcripts translated, if applicable, and evaluated by a member of the National Association of Credential Evaluation Services (NACES) or Association of International Credentials Evaluators (AICE).
3. TOEFL test results; the minimum accepted score is 525 (paper-based), 197 (computer-based), and 69 (internet-based)

IELTS test results: the minimum accepted score is 6.5 for undergraduate and 7.0 for graduate students.

Unless the native language of the international student is English, and the College can confirm the native language, then the student is not required to take the TOEFL or IELTS test.

There is no limited amount of times a student can take the tests; test scores are valid for two (2) years after the test date. The official scores become part of the permanent student record once the student has enrolled with the College.

Students may also waive the English proficiency tests (TOEFL & IELTS) if students can provide evidence of receiving at least four (4) years educational training in English language. Students will then take Cogswell's placement exam to assess competency in English.

4. An affidavit of financial support.

In addition to the above, international students must fulfill all admission requirements prior to issuing a Form I-20. Consult the Admissions Department or Designated School Official for additional information.

Transfer of Credit Policy (revised)

In accordance with WASC, Senior College and University Commission's Transfer of Credit Policy Criteria, Cogswell assumes control of award of credits based on the following:

- Comparability and Applicability
- Balance in the use of Accreditation Status in Transfer Decisions
- Consistency
- Accountability for Effective Public Communication
- Commitment to Address Innovation
- Applicability of Credit for Degree Purposes
- Evaluation of Credit From Foreign Institutions

Residency Requirements

At a minimum, a student enrolled in an undergraduate program must complete at least 25% of the program of study in residence with Cogswell College (example: Program of study with 120 credits must complete a minimum of 30 credits in residence).

At a minimum, a student enrolled in a graduate program must complete at least 75% of the program of study in residence with Cogswell College (example: Program of study with 30 credits must complete 22 credits in residence).

Evaluation of Transfer Credit

Cogswell College has developed and implemented a transfer credit policy and implementation practices for consistent application to all students. Full and accurate disclosure of policies and practices are important to ensure to all Cogswell College transfer applicants that the transfer process is built on a strong commitment to fairness and effectiveness.

Award of transfer of credit toward program completion is based upon; 1) comparability of transfer credit to requirements of the specific course in a selected program of study, and 2) compliance with stated criteria for this credit at Cogswell College.

Criteria for consideration of transfer of credit are contingent on the following conditions:

1. For undergraduate students, coursework completed must have a minimum grade of “C”. For graduate students, coursework completed must have a minimum grade of “B”. Courses taken for credit with a “P” grade may be transferred if a clearly defined institutional policy identifies the “P” grade as equivalent to a “C” or better for undergraduate work, or a grade of “B” or better for graduate study.
2. Cogswell does not accept work experience, physical education, English as a second language (ESL), or developmental/remedial courses.
3. Cogswell will consider foreign postsecondary official transcripts if evaluated and translated by a member of National Association of Credential Evaluation Services (NACES) or Association for International Credentials Evaluators, INC. (AICE).
4. Courses completed beyond ten (10) years are evaluated on a case-by-case basis.
5. Coursework must have been completed at the same level (upper or lower) as course for which is deemed comparable.
6. Coursework must be awarded for credit value comparable to, or greater than, that required for Cogswell course (i.e., semester or quarter converted basis must equal or exceed that required by Cogswell).
 - a. Conversion of quarter credit to semester credits is as follows:
3 semester credits equate to 4.5 quarter credits. (multiply semester credits by 1.5)
4.5 quarter credits are equal to 3 semester credits (divide credits by 2/3rds)
7. Official Transcripts must be sent directly to the Registrar’s Office within 30 calendar days of the start of a semester. Transcripts marked “Unofficial” or “Issued to Student” will not be considered for evaluation for transfer credit.

Credits Earned at the U.S. Armed Forces Institute

Credit will be awarded, at the sole discretion of the College, for U.S. Armed Forces Institute (USAFI) courses if in compliance with the Guide to the Evaluation of Educational Experiences in the Armed Forces, published by the American Council on Education (ACE).

College Level Examination Program (CLEP)

Students may receive college credit for certain courses through exams administered by the College Level Examination Program (CLEP) and the Defense Activity for Non-Traditional Education System (DANTES). Both programs are governed by the College Entrance Examination Board. Minimum passing scores are detailed in the tables below.

CLEP Subject	Pass	Cogswell Equivalent	Credits
American Government	49+	SSC200 U.S. Government	3
American Literature	49+	ENG210 Cultural Diversity in Literature	3
Analyzing and Interpreting Literature	49+	ENG210 Cultural Diversity in Literature, or ENG227 Scriptwriting, or ENG228 Creative Writing	3
Biology	49+	BIOL130 Physical Science SCI100 Basic Concepts of Physics, or SCI110 The Science of Motion: Humans, Animals, Objectives, or SCI130 Basic Concepts of Anatomy and Physiology	3
Calculus	49+	MATH143 Calculus 1	4
Chemistry	49+	CHEM112 Hazardous Materials	3
College Algebra	49+	MATH112 College Algebra, MATH115 College Algebra and Trigonometry	3
College Composition	49+	ENG227 Scriptwriting , or ENG228 Creative Writing	3
College Mathematics	49+	MATH112 College Algebra	3
English Composition Modular	49+	ENG100 English Composition	3
English Literature	49+	ENG210 Cultural Diversity in Literature	3
Financial Accounting	49+	ACC300 Accounting/Budgeting, DMM250 Financial Models and Management 1	3
History of the US I	49+	SSC200 U.S. Government	3
History of the US II	49+	HUM200 History of the Modern World	3
Humanities	49+	ENG210 Cultural Diversity in Literature	3
Introductory to Business Law	49+	DMM110 Digital Media Business Models 1	3
Natural Sciences	49+	SCI100 Basic Concepts of Physics, or SCI110 The Science of Motion: Humans, Animals, Objectives, or SCI130 Basic Concepts of Anatomy and Physiology	3
Pre-Calculus	49+	MATH116 Pre-Calculus	4
Principles of Management	49+	DMM110 Digital Media Business Models 1	3
Principles of Marketing	49+	DMM140 Consumer and Market Behavior	3
Principles of Microeconomics	49+	SSC240 Principles of Microeconomics	3
Social Sciences and History	49+	SSC240 Principles of Microeconomics	3
Western Civilization I: Ancient Near East to 1648	49+	HUM122 World Music	3
Western Civilization II: 1648 to the Present	49+	HUM125 Music in Western Culture	3

DANTES DSST Subject	Pass	Cogswell Equivalent	Credits
Art of Western World	48+	HUM120 The Nature and History of Western Art, or HUM130 Modern Art History	3
Business Ethics and Society	400+	DMM365 Ethics, Development and Responsibility Management	3

Business Law II	44+	DMM125 Cover Your Assets	3
Ethics in America	46+/400+	DMM365 Ethics, Development and Responsibility Management	3
Fundamentals of College Algebra	47+/400+	MATH112 College Algebra, MATH115 College Algebra and Trigonometry	3
Introduction to Business	46+/400+	DMM110 Digital Media Business Models I	3
Principles of Finance	46+/400+	DMM250 Financial Models and Management 1	3
Principles of Physical Science I	47+	SCI100 Basic Concepts of Physics, or SCI110 The Science of Motion: Humans, Animals, Objectives, or SCI130 Basic Concepts of Anatomy and Physiology	3
Technical Writing	49+	ENG227 Scriptwriting, or ENG228 Creative Writing	3
West Europe Since 1945	49+	HUM200 History of Modern World	3

Advanced Placement Program

Students may receive college credit for certain courses based on scores of the Advanced Placement Test (AP). Credit in appropriate courses will be given for examinations passed with a score of 3 or higher. These tests are administered by national testing organizations and test results must be sent directly to the College by the organization in order to be valid. The following Advanced Placement Courses transfer directly into Cogswell courses:

AP Test	Cogswell Class
AP Music Theory	DAT102 Music Theory 1
AP Studio Art 2D Design Portfolio	DAA100 2D Design 1
AP Studio Art Drawing Portfolio	DAA110 Sketching
AP Studio Art 3D Design Portfolio	DAA230 Introduction to Sculpture
AP Computer Science A	SWE 212 Java Programming
AP Microeconomics	DMM150 Principles of Microeconomics
AP Art History	HUM120 Nature and History of Western Art
AP English Language and Composition	ENG100 English Composition
AP United States Government and Politics	SSC200 U.S. Government
AP European History, or AP United States History, or AP World History	HUM200 History of the Modern World
AP Comparative Government and Politics	HUM200 U.S. Government
AP Calculus AB	MATH143 Calculus 1
AP Calculus BC	MATH144 Calculus 2
AP Physics 1, or AP Physics 2	SCI100 Basic Concepts in Physics
AP Physics 1 or B	SCI145 College Physics 1
AP Physics 3 or C	SCI245 College Physic 2

Credit by Examination Challenge

Under certain circumstances as determined by the appropriate Program Director/Chair and as approved by the Dean of the College, students may demonstrate competency and receive course credit by successfully completing associated examinations and/or assignments rather than attending class and meeting the course learning outcomes.

There is a \$75.00 non-refundable fee for taking a challenge examination. Examination may only be taken one (1) time. Challenge exams will only be given for lower division courses, excluding developmental/remedial courses. A course previously failed, withdrawn, audited, or one in which a student has received an Incomplete grade, may not be challenged.

See course listings for challenge examination availability.

Program	Course
Digital Art and Animation	DAA100 2D Design 1
Digital Art and Animation	DAA105 Color Theory
Digital Art and Animation	DAA106 Digital Imaging Concepts
Digital Art and Animation	DAA108 Intro to Photography
Digital Art and Animation	DAA109 Web Design
Digital Art and Animation	DAA110 Sketching
Digital Art and Animation	DAA115 Figure Drawing 1
General Education	ENG100 English Composition
General Education	ENG227 Scriptwriting
General Education	ENG228 Creative Writing
General Education	HUM120 The Nature and History of Western Art
General Education	HUM125 Music in Western Culture
General Education	HUM130 Modern Art History
General Education	HUM200 History of the Modern World
General Education	HUM227 Film History
General Education	MATH115 College Algebra and Trigonometry
General Education	MATH116 Pre-Calculus
General Education	MATH143 Calculus 1
General Education	MATH144 Calculus 2
General Education	MATH245 Calculus 3
General Education	SSC200 U.S. Government
Engineering	SWE100 Introduction to Scripting: Python
Engineering	SWE110 C Programming
Engineering	SWE212 Java Programming

Students that desire to challenge must see the Registrar's Office. Please note that challenge examinations are not counted when determining full or part time status for the term.

Transfer of Credit After Matriculation

A student who is requesting to attend another academic institution may do so by completing a Transfer of Credit after Matriculation Permission Form available from the Registrar's Office. Students should not register

at another academic institution until receiving confirmation Cogswell College has approved the proposed transfer credit. Students may only transfer a maximum of 20 semester credits after matriculation.

Approval requires the action of the Dean of the College and Registrar.

Students may need to provide the following information:

- Name of Institution
- Course Numbering System
- Credit Hour Policy
- Course Description
- Cogswell Equivalency
- Proof of Registration

Students that are attending another academic institution should consult with the Registrar; it is advised that students register for at least six credits with Cogswell Polytechnical College to be an active student. Students that are not registered for one (1) semester may be withdrawn, excluding summer semester.

No transfer credits will be accepted during the last 12 semester units of course work.

Notice Concerning Transferability of Credits and Credentials Earned at Our Institution (Transfer of Cogswell Credit to Other Institutions) (revised)

The transferability of credits you earn at Cogswell College is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the baccalaureate and/or master degree you earn in the educational program is also at the complete discretion of the institution to which you may seek to transfer. If the baccalaureate and/or master degrees that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending Cogswell College to determine if your baccalaureate and/or master degree will transfer.

Articulation Agreements

Cogswell College establishes articulation agreements with other academic institutions. A list of those institutions can be found on the college website.

Registration and Records Addendum

Page 29-30

Waitlist (added)

Students that have been placed on the waitlist for a course may sit in class during the Add/Drop period only if there are seats available. Students that are registered and listed on the class roster have priority. Below are items students should know about attending a course while on a waitlist:

1. The faculty member for the assigned course has to permit a student to sit in class. Faculty may choose to now allow this on a per class basis and seat availability.
2. If by the end of the drop period, seats do not come available, a student will be removed from the waitlist and will not be able to continue with the course.
3. Sitting in class does not guarantee that the student will be registered into the course by the end of the add/drop period.
4. Students may be asked to leave upon faculty request at any time to accommodate students that are registered in the course.

5. If seats become available students will be registered into the course(s) by order listed on the waitlist.

Transcripts and Other Official Documents (revised)

Official and unofficial transcripts may be requested at the Registrar's Office, including other school documents. A \$10 fee will be assessed for each official transcript. Any request for unofficial transcripts or other official documents can be provided by the Registrar's Office at no charge.

Request must be completed online or complete the Document Request Form and return to the Registrar's Office via fax, school email, or mail.

Financial Information Addendum

Page 30-34

The following statement is to be removed: *The first three official transcripts and/or documents are free. More details are provided on the transcripts section of the catalog.*

Process for Withdrawing from Academic Institution (revised)

Students must provide notice to the Registrar's Office of intent to withdraw from the College. Notice must be made in writing and return any College property: i.e., ID Badge, library books and equipment, etc.

Student's Right to Cancel (revised)

You may cancel your enrollment with Cogswell Polytechnical College, without any penalty or obligation during the first seven (7) calendar days from the start of the program.

If you cancel, any payments you have made and any negotiable instruments signed by you shall be returned to you within 30 calendar days following the receipt of your notice to withdraw from the program.

If you have received any student ID/access badge, you must return the ID/Access badge within 30 days of the date you signed your notice of cancellation.

To cancel your enrollment with Cogswell Polytechnical College you must mail or hand deliver a signed and dated copy of your written notice to:

Cogswell Polytechnical College
Attn: Registrar's Office
1175 Bordeaux Drive
Sunnyvale, CA 94089

REMEMBER THAT YOU MUST CANCEL IN WRITING (email notification is not acceptable). You do not have the right to cancel by telephoning the school or by not attending class.

Refund Policy (revised)

Students who drop classes (but remain enrolled in other classes), during the designated add/drop period; will be entitled to a 100% refund of applicable tuition charges for the dropped classes. After the last day of the add/drop period, students who remain enrolled but drop classes will not be eligible for a refund for those classes.

Students who withdraw from all classes on or after the start of the semester will be subject to a pro-rata tuition charge. They will owe a percentage of their fees corresponding to the last date of recorded attendance in their class. A prorated refund from the first day of instruction, up to the 60th percent point in the academic

period, will be applied to students who withdraw from Cogswell College. For example, the 60th percentile point will be equivalent to a 40% refund of tuition charges

The following is the refund percentage by week for students:

Fall and Spring Terms		Summer Term	
First and Second Week of Class	100%	First Week of Class	100%
Third Week of Class	81%	Second Week of Class	80%
Fourth Week of Class	75%	Third Week of Class	70%
Fifth Week of Class	69%	Fourth Week of Class	60%
Sixth Week of Class	63%	Fifth Week of Class	50%
Seventh Week of Class	56%	Sixth Week of Class	40%
Eighth Week of Class	50%	Beyond Week Sixth	0%
Ninth Week of Class	44%		
Tenth Week of Class	40%		
Beyond Week 10	0%		

Tuition and Fees Graduate Programs

Tuition Pricing Effective Spring 2015

Full-Time (12 Credits) Tuition and Expenses Per Semester	Amount
Tuition Per Course	\$1,700
Technology Fee per Session	\$100
Estimated Total	\$7,000

Part-Time (<12 Credits) Tuition and Expenses Per Semester	Amount
Tuition per Course	\$1,700
Technology Fee per Session	\$100
Estimated Total	\$1,900-\$5,300

Financial Aid Addendum

Page 35-42

Scholarships

Cogswell Polytechnical College offers need-based scholarships to students who are enrolled full-time in a degree program at Cogswell College and continue to show academic success throughout their program. This scholarship applies only to tuition and has no cash value. To be eligible for a scholarship, the student is required to maintain a minimum 2.5 cumulative grade point average throughout the program. If a student's enrollment is canceled or the student withdraws prior to successfully completing the semester, the student will become ineligible for the scholarship.

Students that lose eligibility for failure to keep the minimum CGPA of 2.5 and enrolled in a full-time status may regain eligibility for future semesters only if they meet both the required minimum CGPA and full-time status.

For complete program details, please contact the Financial Aid Office.

General Policies Addendum

Page 43-47

Family Educational Rights and Privacy Act (FERPA)

Cogswell College complies with the Family Education Rights and Privacy Act (FERPA) regulations (also known as the Buckley Amendment (1974)). This act gives eligible students certain rights to their education records. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the College receives the request
2. The right to request the amendment of the student's education records that the student believes is inaccurate
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent
4. The right to prevent disclosure of Directory information (Name, Degree received, Major and dates of attendance). If you wish to withhold the disclosure of all of the items of "Directory Information", complete the Directory Information Opt-Out Form and submit it to the Registrar. This form must be received by the Registrar prior to the close of the Course Add/Drop period in any given semester or term to ensure that the above information is not released for the remainder of the semester.
5. The right to be annually reminded about his/her rights under FERPA
6. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA.

The name and address of the Department of Education that administers FERPA:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5901

The Buckley Amendment grants the College the authority to release directory information to any person on request, unless a student requests in writing that directory information be kept as private. The College directory information will be disclosed at the College's discretion. The College regards the following as directory information:

- Student's Name
- Dates of Attendance
- Degrees/Awards Earned
- Major Field Study

It is important that parents/eligible students have the opportunity to make informed decisions about the use of their student's directory information. However, there are times when schools must be allowed to implement policies that will permit them to effectively protect their students. As such, the Department of Education has also changed the directory information exception to state that parents may not, by opting out of directory information, prevent a school from requiring a student to wear or present a student ID badge.

Academic Policies Addendum

Page 48-59

On-Campus Attendance Policy

Cogswell students are expected to attend every class session scheduled for each course in which they enroll. Students who miss a class must arrange with instructors to take any examination or complete any make-up work at an alternate time. The following are the attendance policies that apply to all students at Cogswell:

- A student that does not attend an individual class for 14 consecutive calendar days may be withdrawn from the class by the College. A withdrawal “W” grade will be given if withdrawal occurs on or prior to the last day to withdraw deadline. A withdrawal after the last day to withdraw will be assigned a withdrawal fail “WF” grade.
- A student that is absent from all classes for 14 consecutive calendar days may be withdrawn from the school and subject to the refund policies. For each registered course, a withdrawal “W” grade will be given if withdrawal occurs on or prior to the last day to withdraw deadline. A withdrawal after the last day to withdraw will be assigned a withdrawal fail “WF” grade for each registered course.

Students may appeal the attendance policy as described in the Attendance Appeal Policy.

Online/Hybrid Attendance Policy

Cogswell provides two distance learning delivery methods with the utilization of a Learning Management System (LMS): e.g., ‘Online’ and ‘Hybrid.’ Distance learning courses are held Monday through Sunday.

Cogswell students registered for online courses are encouraged to participate often in each course they enroll. At a minimum, a student must submit a gradable item each week. A gradable item is defined as a threaded discussion, assignment, test, or quiz.

Cogswell students registered for hybrid courses will require students to attend, at the least, once a week in class lecture while submitting assignments via LMS.

The following are the attendance policies that apply to all students at Cogswell enrolled in any distance learning delivery method:

- A student that does not participate in an individual class for 14 consecutive calendar days (two (2) weeks) will be withdrawn from the class by the College. A withdrawal “W” grade will be given if withdrawal occurs on or prior to the last day to withdraw deadline. A withdrawal after the last day to withdraw will be assigned a withdrawal fail “WF” grade.
- A student that is absent from all classes for 14 consecutive calendar days (two (2) weeks) will be withdrawn from the school and subject to the refund policies described below. For each registered course, a withdrawal “W” grade will be given if withdrawal occurs on or prior to the last day to withdraw deadline. A withdrawal after the last day to withdraw will be assigned a withdrawal fail “WF” grade for each registered course.

Students may appeal the attendance policy to extenuating circumstances as described in the Attendance Appeal Policy.

Attendance Appeal Policy and Reinstatement

Students seeking to be readmitted to class after having been withdrawn for excessive absences should obtain an Appeal of Attendance Form from the Registrar's Office. Students will have seven (7) calendar days from the date of the withdrawal to complete the appeal.

The form must be completed and approved by the faculty for which student is seeking re-admittance.

If denied by the faculty, student may continue through the appeal process by submitting the form to the Registrar's Office on or before the deadline. A committee will assemble to review the appeal and any supporting documentation provided. A determination will be provided to the student within five (5) calendar days.

Until the decision has been finalized, students may not attend course(s) from which they are withdrawn.

Incompletes

An Incomplete ("I") grade may be used if the student has essentially completed the course except for a missing examination, project, or paper due to circumstances beyond the student's control. An Incomplete is not considered a grade, and will not satisfy the prerequisite requirement of any subsequent course.

It is the responsibility of the student to bring pertinent information to the instructor regarding why s/he cannot fulfill all the work during the current semester and to reach agreement on the means by which the remaining course requirements will be satisfied. If the instructor agrees, the instructor will submit a Petition for Incomplete Grade form with an "I" grade for that course for that semester.

It is a student's responsibility to follow up with the instructor to remove an Incomplete. The instructor will assign a final grade when the work agreed upon has been completed and evaluated. The instructor will then submit a Change of Grade form to the Registrar for processing.

Incomplete grade changes must be cleared within 30 calendar days from the last day of a semester. Failure to meet deadlines will result in the incomplete grade changed to the default grade. Exception may be considered under mitigating circumstances by providing supporting documentation.

Program/Course Addendum

Page 62-192

General Education Requirements

Class	Applicable Courses	Credits	Prerequisites
<i>*Remedial Classes</i>			
ENG050	Grammar & Composition	**3	None
MATH003	Intermediate Algebra	**3	None
<i>***Additional Math Class</i>			
MATH116	Pre-Calculus	**4	MATH003 or Placement Exam
<i>BASIC SKILLS – 9 credits in 3 areas</i>			
WRITTEN COMMUNICATION – 3 credits			
ENG100	English Composition	3	ENG050 or Placement Exam
ORAL COMMUNICATION – 3 credits			
ENG235	Art of Argumentation	3	ENG100
ENG250	Speech and Oral Communication	3	ENG100
ENG280	Apocalypse & The American Imagination	3	ENG100
HUM210	The Experimental Tradition in Film, Music, and Literature	3	ENG100

HUM240	Space, Time, Mind	3	ENG100
SSC210	Introduction to Consciousness	3	ENG100
CRITICAL THINKING – 3 credits			
ENG110	Critical Thinking	3	ENG100 or Approval
ENG220	Technical Writing	3	ENG 100
ENG235	Art of Argumentation	3	ENG100
ENG250	Speech and Oral Communication	3	ENG100
ENG280	Apocalypse & The American Imagination	3	ENG100
ENG300	Essentials of Written Communication	3	ENG100
HUM210	The Experimental Tradition in Film, Music, and Literature	3	ENG100
HUM240	Space, Time, Mind	3	ENG100
HUM227	Film History	3	ENG100
HUM228	Video Games and Society	3	ENG100
HUM230	History of Animation	3	ENG100
SSC210	Introduction to Consciousness	3	ENG100
<i>HUMANITIES & ARTS – 9 credits in three areas</i>			
ARTS – 3 credits			
HUM120	The Nature and History of Western Art	3	None
HUM122	World Music	3	None
HUM125	Music in Western Culture	3	None
HUM130	Modern Art History	3	None
HUM140	Modern Art History and Film	3	ENG100
HUM227	Film History	3	ENG100
HUM228	Video Games and Society	3	ENG100
HUM230	History of Animation	3	ENG100
LETTERS – 3 credits			
ENG227	Scriptwriting	3	ENG100
ENG228	Creative Writing	3	ENG100
ENG230	Classics of the World Stage	3	ENG100
ENG280	Apocalypse & The American Imagination	3	ENG100
HUM210	The Experimental Tradition in Film, Music, and Literature	3	ENG100
WRITTEN COMMUNICATION II – 3 credits			
ENG110	Critical Thinking	3	ENG100 or Approval
ENG220	Technical Writing	3	ENG100
ENG227	Scriptwriting	3	ENG100
ENG228	Creative Writing	3	ENG100
ENG230	Classics of the World Stage	3	ENG100
ENG235	Art of Argumentation	3	ENG100
ENG280	Apocalypse & The American Imagination	3	ENG100
ENG300	Essentials of Written Communication	3	ENG100
ENG310	Classics of Western Drama	3	ENG100
HUM227	Film History	3	ENG100
HUM228	Video Games and Society	3	ENG100
HUM230	History of Animation	3	ENG100
SSC230	Human Behavior and Entrepreneurship	3	ENG100
<i>SOCIAL SCIENCES – 12 units in 3 areas</i>			
HUMAN BEHAVIOR – 3 credits			
ENG280	Apocalypse & The American Imagination	3	ENG100
HUM228	Video Games & Society	3	ENG100
SSC180	Introduction to Psychology	3	ENG100
SSC210	Introduction to Consciousness	3	ENG100
SSC230	Human Behavior and Entrepreneurship	3	ENG100
COMPARATIVE SYSTEMS – 3 credits			
HUM200	History of the Modern World	3	ENG100
HUM240	Space, Time, Mind	3	ENG100
SSC200	U.S. Government	3	ENG100
SSC332	Global Political Economics	3	ENG100
SOCIAL ISSUES – 3 credits			
HUM200	History of the Modern World	3	ENG100
SSC200	U.S. Government	3	ENG100

SSC230	Human Behavior and Entrepreneurship	3	ENG100
MATH & SCIENCES for Non-Engineering Majors – 9 credits in two areas			
MATHEMATICAL CONCEPTS & QUANTITATIVE REASONING – 3 credits			
MATH115	College Algebra and Trigonometry	3	MATH003 or Placement Exam
MATH116	Pre-Calculus	4	MATH003 or Placement Exam
MATH143	Calculus 1	4	MATH116
PHYSICAL & BIOLOGICAL SCIENCES – 6 credits			
SCI100	Basic Concepts in Physics	3	MATH115, 116, or 143
SCI110	Science of Motion: Humans, Animals, Objectives	3	MATH115, 116, or 143
SCI130	Basic Concepts of Anatomy and Physiology	3	MATH115, 116 or 143
SCI145	College Physics 1	4	MATH143
SCI200	General Science: Principles and Trends	3	SCI100, SCI110, SCI130, or SCI145
SCI220	Foundations of Musical Acoustics (Required for DAT)	3	SCI100 or SCI145
MATH & SCIENCES for Engineering Majors – 11 OR 12 credits in two areas			
MATHEMATICAL CONCEPTS & QUANTITATIVE REASONING – 4 credits			
MATH143	Calculus 1	4	MATH116
PHYSICAL & BIOLOGICAL SCIENCES – 7 or 8 credits			
SCI145	College Physics 1 (Required for engineering)	4	MATH143
SCI245	College Physics 2 (Required for SWE)	4	MATH143
SCI200	General Science: Principles and Trends	3	SCI100, SCI110, SCI130, or SCI145
SCI220	Foundations of Musical Acoustics (Required for DAT)	3	SCI100 or SCI145
UPPER-DIVISION GENERAL EDUCATION – 6 credits			
300-LEVEL GE ELECTIVE – 3 credits			
ENG300	Essentials of Written Communication	3	Junior Status
ENG310	Classics of Western Drama	3	Junior Status
HUM361	Contemporary Ethical Issues	3	Junior Status
SSC332	Global Political Economics	3	Junior Status
SENIOR-LEVEL RESEARCH & WRITING – 3 credits			
HUM400	Research & Writing Capstone Project	3	Senior status

Course Descriptions

DAA120 TRADITIONAL PAINTING (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	15	60	75

The course in painting emphasizes perception development through specific painting exercises to develop an orderly approach and disciplined perception. Students learn about painting materials and their specific uses, and increase their understanding of color theory. May be repeated once for credit with recommendation from the instructor. **Prerequisite:** DAA105 AND DAA110, **Co-requisite:** None

DAA320 Digital Painting may be used to satisfy course requirement in lieu of DAA120 Traditional Painting for certain educational programs such as Digital Arts and Animation.

DAA335 PORTRAIT SCULPTURE (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	15	60	75

Explores portrait sculpture for character development. Emotive qualities of human expression using plastine. Students focus on the anatomy of the head and neck as critical to the development of emotionally convincing characters. **Prerequisite:** DAA230, **Co-requisite:** None

DAA330 Figure Sculpture may be used to satisfy course requirement in lieu of DAA335 Portrait Sculpture.

DAA364 DRAWING ANIMATION 2 (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	15	60	75

A continuation of Drawing Animation 1. Further life studies of human figures and animals emphasizing anatomical simplification, clarity, and motion. Introduction to facial construction and expression. Students learn to incorporate layout, perspective, and backgrounds into character drawing. **Prerequisite:** DAA264. **Co-requisite:** None

DAA312 Animal Drawing and Motion may be used to satisfy course requirement in lieu of DAA364 Drawing Animation 2.

DAA365 3D ANIMATION 2 (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	15	60	75

Continuation of 3D Animation 1. Explores the creation of character walks, acting and posing using the animation software module. Introduction to character development, scene blocking, and animating using dialogue tracks, and quadruped walks. Uses provided 3D models for pantomime animation, staging, silhouette, performance, weight and overlap exercises that emphasize character.

Prerequisite: DAA360 AND DAA364. **Co-requisite:** None

DAA321 Quadruped Animation may be used to satisfy course requirement in lieu of DAA365 3D Animation 2.

DAA440 MODELING 3 (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	15	60	75

Explores modeling of creatures and humans for interactive applications including games and cinematic work. Maintaining fidelity to reproduction of artwork and observed subjects, texturing and lighting. Students learn to parameterize for animation and muscular flow. **Prerequisite:** DAA340. **Co-requisite:** None

DAA465 3D ANIMATION 3 (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	15	60	75

Continuation of 3D Animation 2 with an emphasis on acting and performance. Advanced scene blocking for dialogue and introduction to facial animation and expression. Focus on refining animation, breaking

joints for overlap, subtle movement and settling. Analysis of phonemes for speech and expression in eyes and mouth to maximize expression. Students will produce original animation with the option of using their own models. **Prerequisite:** DAA365 or DAA321. **Co-requisite:** None

DAT335 MUSIC PERCEPTION AND COGNITION (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	45	0	45

Survey of research on perceptual and cognitive theories of sound and music. Topics include characteristics of sound, anatomy of the ear, hearing function, cognitive skills related to music perception, and memory in music. **Prerequisite:** SCI100 or SCI145, **Co-requisite:** None

DAT342 INTERACTIVE GAME COMPOSITION (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	15	60	75

Advanced composition of videogame music. Analysis of settings, characters and gameplay for music support. Designing for adaptive evolution of musical themes. Orchestration aspects of adaptive music. Students will score model interactive projects. **Prerequisite:** DAT202 and DAT212. **Co-requisite:** None

DAT483 DAT COLLABORATIVE PROJECT (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	15	60	75

A collaborative, potentially interdisciplinary, practical project. May be a live project with real-life client(s) and strict deadlines. Students work on two 7-week, or one 15-week full-cycle audio- or audiovisual production in an audio production team, where student may be required to fulfill various roles, typically that of an audio engineer, sound designer, composer and project manager. Full-cycle production may include client meetings, concept development, production and delivery. The lecture part of the course will include client communications, team management- and communication principles, the EER approach and file management practices. The deliverables of the course can be integrated into individual student portfolios. Prior approval required. **Prerequisite:** DAT320 or faculty approval for non-DAT majors. **Co-requisite:** None

ENG100 ENGLISH COMPOSITION (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	45	0	45

This course develops written communication and critical thinking skills. It explores techniques and practices of expository and argumentative writing. Students learn to generate ideas for writing based on readings, learn to organize and support their ideas, and learn to apply techniques of revision to produce polished, professional work. Content, format and correct grammatical structures are emphasized. **Prerequisite:** ENG050. **Co-requisite:** None

ENG110 CRITICAL THINKING (new)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	45	0	45

This course focuses on identifying and articulating skills needed for academic and professional success. Coursework provides instruction and practice in critical thinking and problem-solving through analysis of critical reading and reasoning, as well as through examination of problem-solving methodologies. Students learn to identify and resolve problems and to use research effectively to gather and evaluate relevant and useful information. **Prerequisite:** ENG100 or Advisor Approval

MATH115 COLLEGE ALGEBRA AND TRIGONOMETRY (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	45	0	45

Principles and applications of inequalities, functions and graphs, polynomials and rational functions, systems of equations and inequalities, matrices and determinants. Analytic geometry including conic sections. Trigonometric functions, identities, equations, inverse functions, trigonometric applications including vector definition, operations, and dot product. Students are introduced to the basic concepts for computer graphics. **Prerequisite:** MATH003. **Co-requisite:** None

SCI100 BASIC CONCEPTS OF PHYSICS (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	30	30	60

Basic principles: motion, gravitation, electricity and magnetism, light, relativity and atomic physics. Students are introduced to the fundamentals of physics. **Prerequisite:** MATH115, MATH116, or MATH143. **Co-requisite:** None

SCI110 THE SCIENCE OF MOTION: HUMANS, ANIMALS, OBJECTS (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	30	30	60

Analysis of movement of biological systems and objects based on the mechanical principles of motion. Topics covered in lectures and labs: linear kinematics including walking, running, jumping, and climbing; kinematics of joints (elbows, knees, hips, etc.), angular kinematics, forces acting on a body and objects, work and energy, positive and negative work of muscles and total body, conservation of energy during body and object movement, center of mass and its calculation, torque, mechanical and anatomical levers, joint torque calculation and joint reaction force, rotational motion and angular momentum, buoyancy, lift and drag forces acting on wings, swimming propulsion. Fulfills the requirement for a basic lab science. **Prerequisite:** MATH115, MATH116, or MATH143. **Co-requisite:** None

SCI130 BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	30	30	60

This course presents a systematic approach to the study of the human body beginning with an introduction to anatomical terminology. Topics covered include the gross and microscopic anatomy of

the following system: skeletal; muscular, nervous, circulatory, respiratory, digestive, urinary and reproductive. Laboratory work will parallel and reinforce concepts introduced in the lectures, using practical models and other visual aids. **Prerequisite:** MATH115, MATH116, or MATH143. **Co-requisite:** None

SCI200 GENERAL SCIENCE: PRINCIPLES AND TRENDS (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	30	30	60

This course introduces the fundamentals of classical and modern physics. Topics include basic principles of mechanics, fluids and thermodynamics, waves motion, sound, light, electricity and magnetism, and modern physics, including special theory of relativity, quantum mechanics, atomic and nuclear physics. **Prerequisite:** SCI100, SCI110, SCI130, or SCI145. **Co-requisite:** None

SCI220 FOUNDATIONS OF MUSICAL ACOUSTICS (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	30	30	60

Waves and wave propagation, sound pressure level and measurement, reflection, absorption and diffusion. Acoustic characteristics of building materials, room acoustics. Bass traps, diffusers and other acoustic interventions. Acoustic aspects of studio design. **Prerequisite:** SCI100 or SCI145 **Co-requisite:** None

SSC230 HUMAN BEHAVIOR AND ENTREPRENEURSHIP (new)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	45	0	45

This course addresses the psychology of entrepreneurship: conceiving, creating, bootstrapping, managing, leading and potentially selling an innovative business idea. Our goal is to offer mission-critical concepts and best practices of entrepreneurship with a focus on psychology of business, social networking, influence, and leadership. Basic literacy in key areas of marketing, management, and finance combine with psychological profiling of entrepreneurs: Creative, innovative, passionate; self-confident; obsessive; oppositional-defiant. The course features discussion, peer engagement and social networking, case analysis, behavior journaling, and building a business plan for your own creative entrepreneurial idea. **Prerequisites:** ENG100

SWE449 TOOLS PROGRAMMING (revised)

Semester Credits	Lecture Hours	Lab Hours	Total Contact Hours
3	30	30	60

Advance Scripting. Mel Scripting. C++ Plug-in. **Prerequisite:** SWE315 or Program Director approval. **Co-requisite:** None