
ARTICULATION AGREEMENT

by and between

ROWAN UNIVERSITY

and

COMMUNITY COLLEGE OF PHILADELPHIA

Dated: Click or tap to enter a date.

ARTICULATION AGREEMENT

This Articulation Agreement (this “Agreement”), is entered into and effective on [Click or tap to enter a date.](#), by and between ROWAN UNIVERSITY (“Rowan”), and COMMUNITY COLLEGE OF PHILADELPHIA (“CCP”), each a “Party” and together the “Parties”.

I. PURPOSE

This Agreement shall provide details regarding practices, services, academic programs, and educational pathways in order to ensure an accurate reflection of the relationship of the Parties and ensure continued collaboration to benefit CCP graduates transferring to Rowan. As per this Agreement, the Parties will be committed to the following:

1. To ease the transfer of CCP graduates to Rowan by simplifying the admissions transfer process, introducing students to the opportunities available at Rowan, offering joint collaborative events, and developing Transfer Guides;
2. To establish a framework for continued collaborative and joint educational offerings, intended to expand access to quality higher education to CCP graduates;
3. To foster a network relationship between Rowan and CCP to offer an expansive range of high quality, unique educational opportunities at a relatively lower net cost to the students;
4. To explore best practices and mutually beneficial efficiencies in the administrative, technical and academic operations in order to improve student success;
5. To establish partnership benefits for students in The Louis Stokes Alliances for Minority Participation (LSAMP) programs at CCP and Rowan.

II. PARTIES’ OBLIGATIONS

1. Parties agree and acknowledge that collaboration is critical to the continued success of this Agreement. As such, Parties agree to meet at least once each semester to review the processes articulated in this Agreement and other key issues in this Agreement. Parties agree that additional topical/specific meetings will occur on a regular basis between relevant parties of each institution.
2. Each Party shall establish a Primary Representative (whether an individual or particular office/unit) for the management of the relationship, attendance at the above-referenced meetings, and the communication of decisions relating to partnership issues. Such representatives will assure that appropriate personnel in their respective institutions are aware of this Agreement.
3. Campus Project Directors of The Louis Stokes Alliances for Minority Participation (LSAMP) grant program from each partner institution agree to collaborate and follow the guidelines noted in Appendix C of this Agreement.

III. MULTIPLE EDUCATIONAL PATHWAYS

Through this partnership, students shall have the opportunity to pursue an education that places emphasis on quality, flexibility, and the acquisition of skills and competencies that are relevant to current

and future labor market needs as reported by independent external sources such as departments of labor, chambers of commerce and market research organizations.

1. Undergraduate Education Pathways

- i. The educational pathways for CCP graduates to seamlessly transfer to Rowan are included in Appendix A of this Agreement. Transfer guides that specify for CCP students the CCP courses that satisfy academic requirements needed for both associate and bachelor's degree completion for each approved academic degree are included in Appendix D of this Agreement.
- ii. For undergraduate education, subject to the terms of this Agreement, students who earn an associate degree from the list of approved curricula at CCP in Appendix A are assured third year/junior status in appropriately matching Rowan curricula. This allows a full-time student to complete requirements for the bachelor's degree within four full-time fall/spring semesters or no more than 60 credits (or half of the bachelor's degree).
- iii. Rowan will encourage CCP transfer students to complete the appropriate associate degree before matriculation to Rowan in order to take advantage of this Agreement. If the CCP student chooses to transfer and matriculate to Rowan before completion of the associate degree, Rowan will encourage reverse transfer. Rowan will develop a reverse transfer credit process, which must be mutually agreed upon by both Rowan and CCP, that includes methodology to notify and assist students with this reverse transfer benefit.

2. Graduate Education Pathways

- i. CCP students who earn a bachelor's degree at Rowan will also have access to graduate education and may be eligible for any Combined Advanced Degree Program (CADP) options available. The table shown in Appendix B outlines the bachelor's degree earned, based on the CCP associate degree pathway along with the corresponding graduate degree. Students may be eligible to explore other CADP and graduate degree options as well based on meeting program admission requirements.

IV. ADMISSION INTO THE PROGRAMS

1. A CCP student shall be admitted to Rowan, provided the student:
 - i. has successfully obtained or will obtain an appropriate Associate degree from CCP before enrolling in Rowan. See Appendix A for a list of approved degree programs included in this Agreement; and
 - ii. has satisfied all other applicable Rowan Admissions and program-specific requirements and is in good standing with CCP and Rowan regarding student conduct, student account payments and financial aid eligibility (having no delinquency in payment nor pending nor adjudicated student discipline matters of a serious nature).

V. TRANSFERABILITY OF CREDITS

1. The transferability of credits from CCP to Rowan will be determined in accordance with Rowan's posted transfer of credits policy and any existing articulation agreement addressing specific programs. Students are responsible for sending Rowan official transcripts for evaluation of credit from CCP and any other attended institutions, including military transcripts. Credit will also be

awarded for AP, CLEP, etc. with appropriate documentation. Developmental courses are not eligible for transfer.

2. CCP students who transfer are responsible only for requirements in place at Rowan as noted in the Transfer Guides included in Appendix D for the approved curricula at CCP.
3. Students who have pursued a CCP associate degree study other than those designated in this Agreement or who do not earn the associate degree in the designated curricula and who wish to transfer to Rowan are not covered by this Agreement. Such students will be considered for admissions on an individual basis and their credits will be evaluated on a course-by-course basis.
4. As the streamlining of transfer credits is critical to the success of the partnership between Rowan and CCP, the College will provide the appropriate employees with relevant information regarding the Program sequences found in Appendices A and B. Adherence to progression outlined would ensure both streamlined transfer of credits to Rowan University program and student satisfaction with transition.
5. The Transfer Guides included in Appendix D of this Agreement are intended for guidance purposes only. Students should meet with a Rowan Admissions representative and/or a CCP academic advisor or counselor to develop a course taking strategy to maximize course transferability.

VII. ADMISSIONS PROCESS

1. Rowan will waive student admissions application fees for CCP students applying to Rowan through this program.
2. To the extent permitted by the Family Educational Rights and Privacy Act (FERPA) CCP will facilitate transmittal of detailed application-level information for CCP LSAMP students to Rowan, following the data-sharing processes and standards which will be mutually agreed upon by both parties. Each CCP LSAMP applicant will be asked to sign a consent form permitting CCP and Rowan to share such student's information.
3. CCP students not in the LSAMP program will apply for transfer to Rowan through their regular admissions and enrollment process.

VIII. FINANCIAL AID, TUITION, AND FEES

1. CCP graduates who earn an associate degree from the list of approved degrees in Appendix A and who transfer to Rowan will receive in-state tuition regardless of their residence.
2. Tuition, fees, and discounts shall be reviewed on a yearly basis and at least 6 months prior to the launching of a new academic year.
3. Students who transfer under this Agreement are eligible for financial aid on the same basis as all other Rowan students with junior status.

IX. STUDENT SERVICES

Students who transfer to Rowan under this Agreement are eligible for student services on the same basis as all other Rowan students with junior status. Under the terms of this agreement, CCP is responsible for providing academic advisement to students during the first two years of the 2+2 academic programs listed in Appendix A, using the transfer guides included in this agreement. Rowan University Academic Advisers are responsible to provide academic advisement to students enrolled

on the main campus of Rowan University. Rowan Global Academic Advisors will provide academic advisement to students pursuing degree completion programs delivered through Rowan Online. All Rowan University Academic Advisors will use the transfer guides in Appendix D to provide academic advisement to students in years 3 and 4.

X. OPERATIONS & LOGISTICS

Each institution shall designate a representative to serve as a point of contact to ensure appropriate support for all operations and logistics related to this Agreement. These support areas are described below.

XI. ACADEMIC PROGRAMMING

As of the effective date of this Agreement, the current list of academic programs offered under the terms of the Agreement are provided in Appendix A. Program-to-program curriculum Transfer Guides that specify for CCP transfer students the CCP courses that satisfy major requirements needed for both associate and bachelor's degree completion are included in Appendix D of this Agreement.

XII. MARKETING AND RECRUITING

Recruiting of CCP students for Rowan programs must be a coordinated effort with strategies approved by both institutions. CCP will invite Rowan recruiters to visit CCP and to participate in student outreach (e.g.: transfer fairs, CCP campus visits, virtual open houses, etc.). Rowan agrees to participate in student outreach (e.g.: transfer fairs, campus visits, virtual open houses, etc.) at least once each fall and spring semesters. Failure to comply with this provision shall be considered a material breach of this Agreement.

XIII. PUBLICATIONS

No party shall use the other party's name, graphic mark or logo (cumulatively, "brand") in any descriptive or promotional literature or communication of any kind without the other party's prior written approval. Parties shall provide one another with an advance copy of media releases relating to this Agreement and the Parties' collaboration at least seven (7) business days prior to publication and shall agree not to publish any such materials without approval of the same. Failure to comply with this provision shall be considered a material breach of this Agreement and parties agree and acknowledge that injunctive relief may be pursued to prevent or address such breach.

XIV. DATA SHARING

Both parties agree to exchange de-identified, aggregate data annually that will contribute to the maintenance and improvement of this Agreement, enhance the transfer process, and promote effective cooperation between institutions. To the extent permitted by law, the parties may also exchange individualized data about individual transfer students, including, for example, admissions information and grades, and reports on the results of program reviews, assessments of student learning, and/or decisions of curricular and other committees.

Because all CCP LSAMP students will be asked to sign a consent form permitting CCP and Rowan to share such student's information, LSAMP data can be identifiable.

XV. TERM, RENEWAL, AND TERMINATION

1. Term

The term of this Agreement shall begin as of the date of signatures and end on 12/31/2022.

2. Renewal

This Agreement shall be automatically renewed annually starting on 1/1/2023 and shall continue in effect for a total of five years (12/31/27) unless otherwise modified or terminated.

3. Termination

This agreement may be terminated by either Rowan or CCP by written notice of 90 days to the other party without cause. In the event that this agreement is terminated, it is understood and agreed that the termination will not apply to those students already accepted to Rowan under the terms of this agreement.

XVI. MISCELLANEOUS

1. Notices

All notices required or permitted to be given under this Agreement shall be in writing and shall be deemed effective (a) upon receipt, refusal of receipt, or the date noted as uncollected when sent by certified or registered mail, postage prepaid and return receipt requested, or (b) the earlier of receipt or two (2) business days when sent by a nationally recognized overnight courier, or (c) when sent by email transmission with proof of successful transmission retained by sender and confirmation of receipt provided by the recipient to the sender by return email, to the address set forth below or to such other addresses as the parties may hereto designate in writing.

If to CCP:	If to Rowan:
Community College of Philadelphia 1700 Spring Garden Street Philadelphia, PA 19130 Attention: Vice President, Academic and Student Success	Rowan University 201 Mullica Hill Rd. Glassboro, NJ 08028 Attention: President
With a copy to: General Counsel Community College of Philadelphia 1700 Spring Garden Street Philadelphia, PA 19130	With a copy to: The Office of General Counsel Attention: General Counsel (same address as above)

2. Liability

The liability of Rowan and its employees shall be subject to all the provisions of the New Jersey Tort Claims Act, N.J.S.A. 59:1-1 et seq., ("Act") the New Jersey Contractual Liability Act, N.J.S.A. 59-13-1 et seq., and the availability of appropriations.

Rowan does not carry public liability insurance but the liability of the State and the obligation of the State to be responsible for tort claims against the State or its employees are covered under the terms and provisions of the Act. The Act also creates a special self-insurance fund and provides for payment of claims under the Act against the State or against its employees, for whom the State is obligated to indemnify against tort claims which arise out of the performance of their duties.

The liability of CCP and its employees shall be subject to the provisions of the Political Subdivision Tort Claims Act (the "Tort Claims Act"), 42 Pa. C.S.A. §§8541-8564, and the statutory limits thereof.

3. Independent Entities

The parties are not, and shall not be, considered as partners, joint venturers, or joint employers. Each party shall be solely responsible for the acts or omissions of its officers, directors, agents, staff, students, employees and shall be responsible for any claims, causes of action, damages, or losses arising therefrom.

4. Compliance with Law

The Parties agree not to discriminate on the basis of race, creed, color, age, sex, handicap, marital status, sexual preference, religion, national origin, or other classifications protected under applicable law. Both parties agree to continue their respective policies of non-discrimination based on Title VI of the Civil Rights Act of 1964 in regard to sex, race, color, creed, national origin, Title IX of the Educational amendments of 1972, and other applicable federal, state and local laws, including but not limited to those prohibiting discrimination on the basis of sexual orientation and gender identity.

5. Assignment

Neither party shall have the right to assign this Agreement without the prior written consent of the other party.

6. Governing Law; Jurisdiction; Process; Dispute Resolution

The Parties shall use best efforts to resolve the dispute(s) by non-binding mediation, which shall include the President, or his VP designee, and, if required by that institution's internal processes, the Chair of the Board of each institution.

XVII. Counterparts and Amendments

This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original of this Agreement and all of which, when taken together, will be deemed to constitute one and the same Agreement. To the extent permitted by law, a signature delivered via facsimile or email will be considered as an original for the purposes of acknowledging and agreeing to the terms of this Agreement.

This Agreement supersedes any other similar agreement, written or otherwise or any representations made thereto, between the parties or any past practices of a nature provided for herein.

Modifications to the terms and conditions of this Agreement may only be made by written agreement of the Parties. Until such modification by mutual written agreement, the then-current terms of the Agreement shall remain in effect. Realizing that the partnership between the Parties

is new and will evolve over time, adjustments in the process and procedures employed to effectuate the terms and spirit of the Agreement may be implemented upon the written approval of both institutions' Presidents, or if permitted by the institution's internal processes, the Vice President that the President so designates, without the need for approval by the respective Boards of Trustees, unless required by either institution's internal processes. For Rowan material deviations, such as changed financial obligations, must be approved by Rowan's Boards of Trustees.

The Parties, and the signatories to this Agreement, represent that all necessary actions have been taken to authorize such execution.

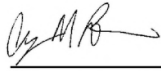
IN WITNESS WHEREOF, the parties hereto have duly executed this instrument.

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SIGNATURES ON FOLLOWING PAGE

SIGNATURES

Rowan University



Anthony M. Lowman, Ph.D.
Provost/Senior Vice President for Academic
Affairs

Date May 19, 2022
:



Jeff Hand (May 22, 2022 11:32 EDT)

Jeff Hand, Ph.D.
Senior Vice President for Strategic Enrollment
Management

Date May 22, 2022
:

Community College of Philadelphia

DocuSigned by:

9704580513E3456...

Donald "Guy" Generals, Ed.D.
President

Date 6/22/2022 | 3:35 PM EDT
:

DocuSigned by:

5499A131071C467...

Samuel Hirsch, Ed.D.
Vice President of Academic and Student Success

Date 6/22/2022 | 11:06 AM EDT
:

APPENDIX A

CURRENT PROGRAMS AND PROGRAMS AGREED BY THE PARTIES FOR TRANSFER

Under this Agreement, the following Community College of Philadelphia associate degree programs are approved for transfer to the matching Rowan University bachelor's degrees listed.

Community College of Philadelphia	Rowan University
Biology (AS)	Biological Sciences (BS)
Biological Sciences (AA)	Biological Sciences (BA)
Black Studies (AA)	Africana Studies (BA)
Chemistry (AS)	Chemistry (BS)
Computer Science (AS)	Computer Science (BS)
Construction Management (AAS)	Construction Management (BA)
Engineering Science (AS)	Engineering Entrepreneurship (BS)
Facilities Management (AAS)	Construction Management (BA)
Mathematics (AS)	Mathematics (Comprehensive) (BA)
Mathematics (AS)	Mathematics (Education) (BA)
Mathematics (AS)	Mathematics (Statistics) (BA)
Mathematics (AS)	Mathematics (BS)
Sound Recording and Music Technology (AAS)	Music Industry (Music Business Concentration) (BS)

Sound Recording and Music Technology (AAS)	Music Industry (Music Technology Concentration) (BS)
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APPENDIX B

COMBINED ACCELERATED DEGREE PROGRAMS (4+1 DUAL DEGREES)

Community College of Philadelphia students who earn a bachelor's degree at Rowan University will also have access to graduate education, and may be eligible for any Combined Advanced Degree Program (CADP) options noted below:

Recommended CCP Associate degree	Combined Advanced Degree Program (CADP)	Undergraduate Degree Earned based on CCP pathway	Graduate Degree Earned as part of CADP
Black Studies (AA)	Africana Studies + Diversity & Inclusion	Bachelor of Arts in Africana Studies	Master of Arts in Diversity & Inclusion
Chemistry (AS)	Chemistry (BA) + STEM Education	Bachelor of Arts in Chemistry	Master of Arts in STEM Education
Chemistry (AS)	Chemistry (BS) + STEM Education	Bachelor of Science in Chemistry	Master of Arts in STEM Education
Chemistry (AS)	Chemistry + Pharmaceutical Sciences	Bachelor of Science in Chemistry	Master of Science in Pharmaceutical Sciences
Computer Science (AS)	Computer Science + Computer Science	Bachelor of Science in Computer Science	Master of Science in Computer Science
Computer Science (AS)	Computer Science + Bioinformatics	Bachelor of Science in Computer Science	Master of Science in Bioinformatics
Computer Science (AS)	Computer Science + Data Science	Bachelor of Science in Computer Science	Master of Science in Data Science
Mathematics (AS)	Mathematics	Bachelor of Science in Mathematics	Master of Arts in Mathematics
Mathematics (AS)	Mathematics + Data Science	Bachelor of Science in Mathematics	Master of Science in Data Science
Mathematics (AS)	Mathematics + STEM Education	Bachelor of Arts in Mathematics	Master of Arts in STEM Education

APPENDIX C

GUIDELINES FOR LSAMP BENEFITS

Both Community College of Philadelphia and Rowan University are members of the Louis Stokes Alliances for Minority Participation (LSAMP) consortium. Given this relationship, in addition to the benefits already noted in this Agreement, the Campus Project Directors of the LSAMP grant programs at each partner institution agrees to collaborate and offer students the benefits outline below:

Before transfer, CCP LSAMP Students will:

- Be able to access special Rowan programming for their LSAMP program on their campuses while still attending CCP, including the opportunity to attend and participate in Rowan STEM or LSAMP Clubs and Organization activities prior to transfer. (Ex. NSBE/ SWE speakers and programming to allow CCP LSAMP student club participation in their event.)
- Be able to meet with Rowan transfer coordinators and Rowan LSAMP staff at CCP during specified STEM Transfer fairs.
- be considered for entry to Rowan's "Research Experiences for Undergraduate" (REU) programs if they are available.

After transfer, CCP LSAMP Students will:

- Receive instate tuition and considerations for transfer scholarships to enroll at Rowan.
- be able to enter the Rowan LSAMP program using their final cumulative CCP GPA to determine research or the Rowan LSAMP program offerings.
- qualify for additional student support services and resources on the same basis as native Rowan students with junior status.

APPENDIX D

TRANSFER GUIDES WITH COURSE REQUIREMENTS FOR APPROVED PROGRAMS

Bachelor of Arts in Africana Studies

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program:

Associate in Arts in Black Studies

Catalog Year: 2021-2022**Transfer School:** Rowan University**Bachelor Program:** Bachelor of Arts in Africana Studies

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Arts (A.A.) in Black Studies at Community College of Philadelphia transfers to the Bachelor of Arts (B.A.) in Africana Studies at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.A. in Black Studies as described in this guide leads to junior standing in the B.A. in Africana Studies at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.

COMMUNITY COLLEGE OF PHILADELPHIA
A.A. Black Studies**ROWAN UNIVERSITY**
B.A. Africana Studies

First Semester	CR.		CR.
FYE 101 - First Year Experience	3	INTR 99070 - Free Elective	3
ENGL 101 - English Composition	3	COMP 01111 - College Composition I	3
CIS 103 - Computer Applications & Concepts	3	CS 01110 Computing Environments	3
FNMT 118 - Intermediate Algebra or higher (MATH 150: Introductory Data Analysis <i>Preferred</i>)	3	INTR 99000 NC/Non Transfb/Not Rowan Level (STAT 02100: Elementary Statistics <i>Recommended</i>)	0 3

BLAS 101 - Introduction to Black Studies	3	AFST 11104 - Introduction to Africana Studies (also fulfills Humanistic Literacy)	3
Second Semester	Cr.		Cr.
ENGL 102 – The Research Paper	3	COMP 01112 - College Composition II	3
World Language Cluster Options: ARAB 101 – Elementary Arabic or FREN 101 – Introductory French or SWAH 101 – Elementary Swahili or SPAN 101 – Elementary Spanish <i>(Students may take a higher level of a world language if placed there.)</i>	3	ARAB 12101 - Elementary Arabic I or FREN 02101 - Elementary French I o SWHL 17101 - Elementary Swahili I or SPAN 05101 - Spanish I (All fulfill Global Literacy)	3
SOC 101 – Introduction to Sociology	3	SOC 08120 - Intro to Sociology	3
ENGL 250 – African American Literature I or ENGL 251 – African American Literature II	3	ENGL 02123 - Topics in Lit: African American Lit (Fulfills LIT requirement)	3
BLAS 102 – Global Black Theory and Social Change	3	AFST 01069 - as Global/Comparative Elective	3
Third Semester	Cr.		Cr.
HIST 220 – African American History to 1877 or HIST 221 – African American History After 1865	3	HIST 05072 - HISTORY MJR 200LVL ELECTIVE (also counts as Africana Elective)	3
ENGL 115 – Public Speaking	3	CMS 04205 - Public Speaking	3
LEAD 120 – Introduction to Conflict Resolution Theory and Practice or ENGL 116 – Interpersonal Communication or BHHS 103 – Human Development and Behavior in the Social Environment	3	INTR 01075 - GE Social/Behav Sci elect or CMS 04220 - Interpersonal Communication or PSY 01071	3
World Language Cluster Options: ARAB 102 – Elementary Arabic or FREN 102 – Introductory French or SWAH 102 – Elementary Swahili or SPAN 102 – Elementary Spanish <i>(Or higher as per placement.)</i>	3	ARAB 12102 - Elementary Arabic II or FREN 02102 - Elementary French II or SWHL 17102 - Elementary Swahili II or SPAN 05102 - Spanish II	3
BIOL 106 – General Biology I or CHEM 105 – Inquiry into Chemistry	4	MCB 01101 - Fnds in Bio for Biomed Sci I or	4

		CHEM 05102 - Chem/Everyday Life (Fulfills Scientific Literacy)	
Fourth Semester	Cr.		Cr.
HUM 180 – Introduction to African Cultures and Civilizations	3	AFST 01069 – as Global/Comparative Elective	3
ENGL 256 – African Literature	3	GE ENGLISH 100-200 LVL (Counts as Africana Elective)	3
BLAS 250 – Special Topics in Black Studies	3	AFST 01067-Africana Studies 100-200 lvl	3
JUS 122 – Race and Justice	3	LAWJ 05205 - Minorities, Crime and Criminal Justice (Counts as Africana Elective)	3
BLAS 290 – Black Studies Capstone Course	3	AFST 01067 - Africana Studies 100-200 lvl	3
MINIMUM CREDITS NEEDED TO GRADUATE:	61	CREDITS EARNED:	55-58

COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:

First Semester		Second Semester	
HIST 05394 - Sub-Saharan Africa to 1800	3	AFST 11304 - Africana Social Thought	3
Quantitative Literacy course, unless already taken (Recommended: STAT 02102 Statistical Literacy)	3	Free Elective*	3
ACE course	3	Free Elective*	3
Free Elective*	3	Free Elective*	3
Free Elective*	3	Free Elective*	3
Third Semester		FOURTH SEMESTER	
Free Elective (Recommended: Topics in Africana Studies)	3	AFST 11450 - Senior Seminar in Africana Studies OR AFST 11350 TPCS AFRICANA STUDIES: MODEL African Union	3

Free Elective*	3	Course that counts as Experiential Learning (AFST 11350 TPCS Model AU strongly recommended)	3
Free Elective*	3	Free Elective*	3
Free Elective*	3	Free Elective*	3
Free Elective*	3	Free Elective*	3
(May need 3 more credits b/c of Computer course)	(3)	(May need 2 more credits unless took credit-bearing math course in community college)	(2)
MINIMUM CREDITS NEEDED TO GRADUATE:			120

*Students are encouraged to use Free Electives to pursue minors or certificates and/or to take additional courses in Africana Studies. The courses below are especially recommended:

- AFST 11350 Topics in Africana Studies
- ENGL 02354 African American Literature I
- ENGL 02355 African American Literature II
- HIST 05376 African American History to 1865
- HIST 05377 African American History Since 1865
- HIST 05373 Civil Rights and Black Power Movements
- PHL 09327 Philosophy of Race
- POSC 07324 - The Politics of Race in American Society
- SOC08488 Critical Race Theory

Bachelor of Arts in Biological Science

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program

Associate in Art in Biological Sciences

Catalog: 2021-2022

Transfer School: Rowan University

Bachelor Program: Bachelor of Arts in Biological Science

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Arts (A.A.) in Biological Sciences at Community College of Philadelphia transfers to the Bachelor of Arts (B.A.) in Biological Science at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.A. in Biological Sciences as described in this guide leads to junior standing in the B.A. in Biological Science at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.

COMMUNITY COLLEGE OF PHILADELPHIA A.A. Biological Sciences		ROWAN UNIVERSITY B.A. Biological Science	
First Semester	CR.		CR.
BIOL 106 - General Biology I	4	BIOL 01100 - Biology I	4
ENGL 101 - English Composition	3	COMP 01111 - College Composition I	3
FNMT 118 - Intermediate Algebra	3	INTR 99000 - NC/Non Transfb/Not Rowan Level	0
SOC 101 - Introduction to Sociology or ANTH 101 - Introduction to Anthropology or ECON 181 - Principles of Economics (Macroeconomics) or POLS 111 - American Government	3	SOC 08120 - Intro to Sociology or ANTH 02202 - Cultural Anthropology or ECON 04101 - Intro Econ-Macroecon or POSC 07110 - American Government	3
BIOL 100 - Introduction to Life Sciences	4	N/A	
Second Semester	CR.		CR.

BIOL 107 - General Biology II	4	BIOL 01101 - Biology II	4
CHEM 110 - Introductory Chemistry	4	CHEM 05102 - Chem/Everyday Life	4
CIS 103 - Computer Applications & Concepts	3	CS 01110 Computing Environments	3
ENGL 102 - The Research Paper	3	COMP 01112 - College Composition II	3
FREN 101 - Elementary French or HUM 101 - Cultural Traditions Ancient to the 13th Century or SPAN 101 - Elementary Spanish	3	FREN 02101 - Elementary French I or INTR 02075 - GE Humanities Elect or SPAN 05101 - Spanish I	3
Third Semester	Cr.		Cr.
BIOL 108 - Essentials of Human Anatomy and Physiology	4	BIOL 10210 - Human Anatomy & Physiology I	4
MATH 161 - Precalculus I	3	MATH 01123 - College Algebra	3
Directed Elective (Choose two): ART 103 - History of Art: Ancient to Renaissance or ECON 182 - 182 Principles of Economics (Microeconomics) or HIST 101 - United States History: Colonial America through the Revolutionary Era or HIST 102 - United States History: The 19th Century or HIST 103 - United States History: The 20th Century and Beyond or HIST 121 - World History: The Distant Past or HIST 122 - World History: The Recent Past or ENGL 190 - Introduction to Literature or MUS 103 - Introduction to Music or PHIL 101 - Introduction to Philosophy or PHIL 211 - Ethical Problems or PSYC 101 - Introduction to Psychology or PSYC 201 - Child Psychology or SOC 231 - Social Problems	6	(Choose two) ARHS 03103 - Art His Srvy I:Pre to Medieval or ECON 04102 - Intro Econ – Microecon or HIST 05150 - US Hist to 1865 or HIST 05075 - GE History Elective or HIST 05075 - GE History Elective or HIST 05100 - West Civ to 1660 or HIST 05075 - GE History Elective or ENGL 02075 - GE Literature Elect or MUSG 06109 - Music Appreciation or PHIL 09120 - Intro to Philosophy or PHIL 09150 - Introduction to Ethics or PSY 01107 - Essentials of Psychology or PSY 09209 - Child and Adolescent Devel or SOC 08221 - Social Problems	6
Fourth Semester	Cr.		Cr.
BIOL 104 - Forensic Biology or	4	BIOL 01067 - GE Bio Sciences Elective or	4

BIOL 123 - Principles of Biology I or BIOL 211 – Genetics or BIOL 225 - Ecology and Field Biology (<i>Recommended</i>) or BIOL 241 - Principles of Microbiology or STS 101 - Introduction to Science, Technology and Society		BIOL 01203 - Introduction to Cell Biology or BIOL 01106 - Introduction to Genetics or BIOL 01204 - Introduction to Ecology or BIOL 11330 - Microbiology or INTR 99070 - Free Elective	
CHEM 118 - Introduction to Biochemistry	4	CHEM 05076 - GE Chemistry Lab Elective	4
MATH 162 - Precalculus II	3	MATH 01075 - GE Math Elective	3
ENGL 115 - Public Speaking	3	CMS 04205 - Public Speaking	3
MINIMUM CREDITS NEEDED TO GRADUATE:	61	CREDITS EARNED:	57

COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:

First Semester		Second Semester	
Physics 1 without Calculus (PHYS 00210)	4	Physics 2 without Calculus (PHYS 00211)	4
Statistics 1 (STAT 02260)	3	Philosophy of Science –WI (PHIL 01369)	3
Chemistry 1 (CHEM 06100)	4	Chemistry 2 (CHEM 06101)	4
Biological Skills for Transfer Students (BIOL 01202)	4	Introduction to Ecology (BIOL 01204) (<i>unless BIO 225 taken at CCP</i>) <u>or</u> Free Elective	4
Third Semester		Fourth Semester	
Upper-level (300+) biology lab elective	4	Free elective credits	18
Upper-level (300+) biology lab elective	4		
Upper-level (300+) biology lab elective	4		
Special Topics or Biology Lab/Field Research (BIOL 01445 or 01475)	3		
		MINIMUM CREDITS NEEDED TO GRADUATE:	63

Developed on/by:	Revised On:
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Bachelor of Science in Biological Science

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program

Associate in Science in Biology

Catalog: 2021-2022

Transfer School: Rowan University

Bachelor Program: Bachelor of Science in Biological Science

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Science (A.S.) in Biology at Community College of Philadelphia transfers to the Bachelor of Science (B.S.) in Biological Science at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.S. in Biology as described in this guide leads to junior standing in the B.S. in Biological Science at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

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**COMMUNITY COLLEGE OF PHILADELPHIA
A.S. Biology**
**ROWAN UNIVERSITY
B.S. Biological Science**

First Semester	CR.		CR.
CHEM 121 - College Chemistry I	4	CHEM 06100 - Chemistry I	4
CIS 103 - Applied Computer Technology	3	CS 01110 Computing Environments	3
ENGL 101 - English Composition I	3	COMP 01111 - College Composition I	3
MATH 162 – Pre-Calculus II	3	MATH 01075 - GE Math Elective	3
SOC 101 - Introduction to Sociology	3	SOC 08120 - Intro to Sociology	3
Second Semester	CR.		CR.
BIOL 123 - Principles of Biology I	4	BIOL 01100 - Biology I	4

CHEM 122 - College Chemistry II	4	CHEM 06101 - Chemistry II	4
ENGL 102 - The Research Paper	3	COMP 01112 - College Composition II	3
FREN 101 - Introductory French or HUM 101 - Cultural Traditions or SPAN 101 - Elementary Spanish	3	FREN 02101 - Elementary French I INTR 02075 - GE Humanities Elect SPAN 05101 - Elementary Spanish I	3
PSYC 101 - Introduction to Psychology	3	PSY 01107 - Essentials of Psychology	3
Third Semester	Cr.		Cr.
BIOL 124 - Principles of Biology II	4	BIOL 01101 - Biology II	4
CHEM 221 - Organic Chemistry I	5	INTR 99070 - Free Elective CHEM 07200 - Organic Chemistry I	1 4
MATH 171 - Calculus I	4	MATH 01130 - Calculus I	4
<i>BIOL 211 – Genetics (Recommended)</i> or BIOL 225 - Ecology and Field Biology or BIOL 241 - Principles of Microbiology or BIOL 255 - Biotechnology I: Basic Laboratory Techniques in Biotechnology or BIOL 256 - Fermentation, Bioprocessing and Biomanufacturing or BIOL 281 - Biochemistry I or BTT 101 - Biomedical Technician Training Practicum	4	BIOL 01106 - Introduction to Genetics or BIOL 01204 - Introduction to Ecology or BIOL 11330 - Microbiology or BIOL 01069 - BIO 100-200 level elective or BIOL 01069 - BIO 100-200 level elective or BIOL 01069 - BIO 100-200 level elective or BIOL 01069 - BIO 100-200 level elective	4
Fourth Semester	Cr.		Cr.
CHEM 222 - Organic Chemistry II	5	CHEM 07201 - Organic Chemistry II INTR 99070 - Free Elective	4 1
ENGL 115 - Public Speaking	3	CMS 04205 - Public Speaking	3
Choose ONE not already taken: BIOL 211 – Genetics or <i>BIOL 225 - Ecology and Field Biology (Recommended)</i> or BIOL 241 - Principles of Microbiology or BIOL 255 - Biotechnology I: Basic Laboratory Techniques in Biotechnology or BIOL 256 - Fermentation, Bioprocessing and Biomanufacturing or BIOL 281 - Biochemistry I or BTT 101 - Biomedical Technician Training Practicum	4	BIOL 01106 - Introduction to Genetics or BIOL 01204 - Introduction to Ecology or BIOL 11330 - Microbiology or BIOL 01069 - BIO 100-200 level elective or BIOL 01069 - BIO 100-200 level elective or BIOL 01069 - BIO 100-200 level elective or BIOL 01069 - BIO 100-200 level elective	4

PHIL 101 - Introduction to Philosophy	3	PHIL 09120 - Intro to Philosophy	3
MINIMUM CREDITS NEEDED TO GRADUATE:	65	CREDITS EARNED:	65

COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:

First Semester		Second Semester	
Physics 1 without Calculus (PHYS 00210)	4	Physics 2 without Calculus (PHYS 00211)	4
Biological Skills for Transfer Students (BIOL 01202) (<i>unless both BIO 211 and 225 taken at CCP</i>) <u>or</u> Introduction to Ecology (BIOL 01204) (<i>unless BIO 225 taken at CCP</i>) <u>or</u> Free elective	4	Introduction to Ecology (BIOL 01204) (<i>unless BIO 225 taken at CCP</i>) <u>or</u> Free Elective	4
Biometry (STAT 02280)	4	Philosophy of Science –WI (PHIL 01369)	3
Anatomy and Physiology 1 (BIOL 10210) or Anatomy and Physiology 2 (BIOL 10212) or 200+ level biology lab elective (if not taken at CCP)	4	Free Elective	3
THIRD SEMESTER		FOURTH SEMESTER	
Upper-level (300+) biology lab elective	4	Special Topics or Biology Lab/Field Research (BIOL 01445 or 01475)	3
Upper-level (300+) biology lab elective (or Free Elective if BIO 241 taken at CCP)	4	Upper-level (300+) biology lab elective	4
Upper-level (300+) biology elective	3	Free Elective	4
Free Elective	3		
MINIMUM CREDITS NEEDED TO GRADUATE:			55

Developed on/by:	Revised On:
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Bachelor of Science in Chemistry

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program

Associate in Science in Chemistry

Catalog: 2021-2022

Transfer School: Rowan University

Bachelor Program: Bachelor of Science in Chemistry

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Science (A.S.) in Chemistry at Community College of Philadelphia transfers to the Bachelor of Science (B.S.) in Chemistry at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.S. in Chemistry as described in this guide leads to junior standing in the B.S. in Chemistry at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.

**COMMUNITY COLLEGE OF PHILADELPHIA
A.S. Chemistry**
**ROWAN UNIVERSITY
B.S. Chemistry**

First Semester	CR.		CR.
CHEM 121 - College Chemistry I	4	CHEM 06100 - Chemistry I	4
MATH 171 - Calculus I	4	MATH 01130 - Calculus I	4
ENGL 101 - English Composition I	3	COMP 01111 - College Composition I	3
CIS 103 - Computer Applications & Concepts	3	CS 01110 Computing Environments	3
Second Semester	CR.		CR.
CHEM 122 - College Chemistry II	4	CHEM 06101 - Chemistry II	4
MATH 172 - Calculus II or Natural Science with Lab Elective	4	MATH 01131 - Calculus II	4

ENGL 102 - The Research Paper	3	COMP 01112 - College Composition II	3
SOC 101 - Introduction to Sociology or HIST 121 - World History: The Distant Past or HIST 122 - World History: The Recent Past or HUM 101 - Cultural Traditions: Ancient to the 13th Century	3	SOC 08120 - Intro to Sociology or HIST 01067 - GE History 100-200 LVL or HIST 05120 - World Hist After 1500 or INTR 02075 - GE Humanities Elect	3 3 3 3
Third Semester	Cr.		Cr.
CHEM 221 - Organic Chemistry I	5	INTR 99070 - Free Elective CHEM 07200 - Organic Chemistry I	1 4
CHEM 214 - Chemical Analysis	5	CHEM 09250 Quantitative Analysis	5
PHYS 140 - Mechanics, Heat and Sound	5	INTR 99070 - Free Elective PHYS 00220 - Introductory Mechanics	1 4
Fourth Semester	Cr.		Cr.
CHEM 222 - Organic Chemistry II	5	INTR 99070 - Free Elective CHEM 07201 - Organic Chemistry II	1 4
PHYS 241 - Electricity, Magnetism and Light	5	INTR 99070 - Free Elective PHYS 00222 - Intro Electricity/Magnetism	1 4
BIOL 123 - Principles of Biology I or BIOL 281 - Biochemistry I or BTT 101 - Biomedical Technician Training Practicum or CIS 106 - Introduction to Computer Programming	4	BIOL 01100 - Biology I or BIOL 01069 - BIO 100-200 level elective or BIOL 01069 - BIO 100-200 level elective or CS 01102 - Introduction to Programming and CS 01075 - GE Computer Science Elective	4 or 3 1
ENGL 115 - Public Speaking	3	CMS 04205 - Public Speaking	3
MINIMUM CREDITS NEEDED TO GRADUATE:	65	CREDITS EARNED:	62

COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:

First Semester		Second Semester	
CHEM 08400 Physical Chemistry I Lecture	3	CHEM 08401 Physical Chemistry II Lecture	3
CHEM 08402 Physical Chemistry I Lab	2	CHEM 08403 Physical Chemistry II Lab	2
CHEM 06301 Inorganic Chemistry	3	CHEM 06400 Advanced Inorganic Chemistry	3

MATH 01230 Calculus III	4	CHEM 06401 Advanced Inorganic Chemistry Lab	2
Free Elective	3	Free Elective	3
Third Semester		Fourth Semester	
CHEM 09410 Instrumental Methods	4	CHEM 05450 Seminar	1
CHEM 05440 Research 1	3	CHEM 07348 Biochemistry	4
MCB 01012 Foundations in Biology for Biomedical Sciences 2	4	CHEM Elective	3
CHEM Elective	3	CHEM Elective	3
CHEM Elective	3	PHIL 09369 Philosophy of Science	3
MINIMUM CREDITS NEEDED TO GRADUATE:			59

Developed on/by:	Revised On:
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Bachelor of Science in Computer Science

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program

Associate in Science in Computer Science

Catalog: 2021-2022

Transfer School: Rowan University

Bachelor Program: Bachelor of Science in Computer Science

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Science (A.S.) in Computer Science at Community College of Philadelphia transfers to the Bachelor of Science (B.S.) in Computer Science at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.S. in Computer Science as described in this guide leads to junior standing in the B.S. in Computer Science at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

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**COMMUNITY COLLEGE OF PHILADELPHIA
A.S. Computer Science**
**ROWAN UNIVERSITY
B.S. Computer Science**

First Semester	CR.		CR.
CSCI 111 - Computer Science I	4	CS 01075 GE Computer Science Elective	4
MATH 163 - Discrete Mathematics	4	GE Math Elective	4
MATH 171 - Calculus I	4	MATH 01130 Calculus I	4
ENGL 101 - English Composition I	3	COMP 01111 College Composition I	3
ENGL 115 – Public Speaking	3	CMS 04205 Public Speaking	3
Second Semester	CR.		CR.
CSCI 112 - Computer Science II	4	CS 04113 Intro Obj-Orient Programming	4
CIS 205 - Database Management Systems	4	INTR 99070 - Free Elective	4

MATH 172 - Calculus II	4	MATH 01131 Calculus II	4
ENGL 102 - The Research Paper	3	COMP 01112 College Composition II	3
Third Semester	Cr.		Cr.
CSCI 211 - Data Structures and Algorithms	4	CS 04222 - Data Struct/Algorithms	4
PHYS 140 - Mechanics, Heat and Sound	5	PHYS 00220 - Introductory Mechanics	4
CSCI 218 - Statistics for Computing and Data Science	4	Stat 02260 Statistics I + 1 GE Stat credit	4
HUM 101 - Cultural Traditions or HIST 121 - Global History I or HIST 122 - Global History II or World Language	3	INTR 02075 GE Humanities Elect or HIST 01067 GE History 100-200 Lvl or HIST 05120 World Hist After 1500	3
Fourth Semester	Cr.		Cr.
CSCI 213 - Computer Organization	4	CS 06205 - Computer Organization	3
PHYS 241 - Electricity, Magnetism and Light	5	PHYS 00222 - Introductory Electricity & Magnetism	4
SOC 101 - Introduction to Sociology or HIST 121 - Global History I or HIST 122 - Global History II	3	SOC 08120 Intro to Sociology or HIST 01067 GE History 100-200 Lvl or HIST 05120 World Hist After 1500	3
Directed Elective - choose ONE: CIS 200 - Apple App Development I or CIS 211 - Android App Development I or CSCI 221 - Machine Learning or MATH 263 - Discrete Mathematics II or MATH 270 - Linear Algebra	3 or 4	CS 10275 - Intro to iOS App Programming CS 10271 - Intro to Android Programming Math 03150 Discrete Math + GE Math (if MATH 163 is also taken) INTR 99070 Free Elective MATH 01210 Linear Algebra	3
MINIMUM CREDITS NEEDED TO GRADUATE:	65	CREDITS EARNED:	61-62

COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:

To complete the CS major the following courses must be completed:

Course #	Course Name	CR
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CS 00100	Comp Sci Learning Community	3
CS 01205	Computer Lab Techniques	3
MATH 03160	Discrete Structures	3
STAT 02290	Probability and Statistical Inference for Computing Systems	3
CS 04114	Object Oriented Programming & Data Abstraction (OOPDA)	3
CS 07210	Foundations of Computer Science	3
CS 04315	Programming Languages	3
CS 04390	Operating Systems	3
CS 04400	Senior Project	3
CS 07321	Software Engineering I	3
CS 07340	Design and Analysis of Algorithms	3
CS 07351	Cyber Security: Fundamentals, Principles, and Applications	3
INTR 01266	Computers and Society (WI)	3

Restricted Electives (choose at least one):		3
CS 04394	Distributed Systems	3
CS 04430	Database Systems: Theory and Program	3
CS 06410	Data Communications and Networking	3
CS 06440	Cloud Computing and the Internet of Things	3
CS 07480	Intro to Data Mining	3

Electives (choose 4):		
CS 01395	Topics in Computer Science	3
CS 01400	Independent Study	3
CS 02421	Big Data Tools and Techniques	3
CS 04301	Bioinformatics - Computational Aspects	3
CS 04305	Web Programming	3

CS 04350	Blockchain Programming	<u>3</u>
CS 04372	Advanced Android Programming	3
CS 04376	Advanced IOS Programming	3
CS 04380	Object Oriented Design	3
CS 04391	Concurrent Programming	3
CS 04392	System Programming and OS Internals	3
CS 04401	Compiler Design	3
CS 04440	Data Warehousing	3
CS 04471	Topics in Mobile Programming	3
CS 06310	Principles of Digital Computers	3
CS 06390	Introduction to Systems Simulation and Modeling	3
CS 06412	Advanced Computer Architecture	3
CS 06415	Wireless Networks, Protocols and Apps.	<u>3</u>
CS 06416	TCP/IP and Internet Protocols and Tech.	3
CS 06417	Principles of Network Security	3
CS 06420	Embedded Systems Programming	3
CS 06470	Cyber Operations	3
CS 07310	Robotics	3
CS 07322	Software Engineering II	3
CS 07350	Computer Cryptography	3
CS 07353	Security of Mobile Devices	3
CS 07360	Introduction to Computer Graphics	3
CS 07370	Introduction to Information Visualization	3
CS 07380	Introduction to Computer Animation	3
CS 07390	Intro to Computer Game Design and Development	<u>3</u>
CS 07422	Theory of Computing	3

CS 07430	Human Computer Interaction	3
CS 07450	Artificial Intelligence	3
CS 07455	Machine Learning	3
CS 07460	Computer Vision	3
CS 07485	Web and Text Mining	3
CS 99300	Computer Field Experience	3
CS 99310	Advanced Learning Asst Experience in CS	3

Authorized Lab Science Courses		
ASTR 11220	Observational Astronomy	4
ASTR 11230	Introductory Astronomy and Astrophysics	4
BIOL 01104	Introduction to Evolution & Scientific Inquiry	4
BIOL 01106	Introduction to Genetics	4
BIOL 01203	Introduction to Cell Biology	4
BIOL 10210	Human Anatomy and Physiology I	4
BIOL 10212	Human Anatomy and Physiology II	4
BINF 07250	Introduction to Bioinformatics	4
MCB 01101	Foundations in Biology for Biomedical Sciences I	4
PHYS 00220	Introductory Mechanics	4
PHYS 00221	Intro. Thermodynamics, Fluids, Waves, & Optics	4
PHYS 00222	Introductory Electricity and Magnetism	4
PHYS 00300	Modern Physics	4
PHYS 00325	Electric Circuits	4
PHYS 00340	Optics and Light	4
CHEM 06100	Chemistry I	4
CHEM 06101	Chemistry II	4
CHEM 09250	Quantitative Analysis	4

CHEM 07200	Organic Chemistry I	4
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In addition to courses listed above, students must complete the following Rowan Core requirements. More information about these courses can be found here: <https://sites.rowan.edu/registrar/approved-core-classes---as-of-summer-2018.html>.

- Artistic Literacy
- Scientific Literacy
- Global Literacy
- Broad-Based Literature

Total: 62 credits

Note: For the Scientific Literacy requirement, CS students need TWO sciences

Bachelor of Arts in Construction Management

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program:

Associate in Applied Science in Construction Management

Catalog: 2021-2022

Transfer School: Rowan University

Bachelor Program: (Online) Bachelor of Arts in Construction Management

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Applied Science (A.A.S.) in Construction Management at Community College of Philadelphia transfers to the fully online Bachelor of Arts (B.A.) in Construction Management at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.A.S. in Construction Management as described in this guide leads to junior standing in the online B.A. in Construction Management at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

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**COMMUNITY COLLEGE OF PHILADELPHIA
A.A.S. Construction Management**
**ROWAN UNIVERSITY
B.A. Construction Management**

First Semester	CR.		CR.
ADC 101 - Introduction to Design and Construction	3	Technical Electives	3
ADC 103 - CAD Basics	3	Technical Elective	3
ADC 123 - Construction Print Reading and Specifications	3	Technical Elective	3
ADC 133 - Project Management in Construction	3	Technical Elective	3
ENGL 101 - English Composition I	3	COMP 01111 College Composition I	3
Second Semester	CR.		CR.

ADC 112 - Construction Materials and Detailing: Properties	3	Technical Elective	3
ADC 146 - Construction Supervision and Business Practices	3	INTR 99070 Free Elective	3
ADC 163 - Digital Documentation in Architecture and Construction	3	Technical Elective	3
SOC 101 - Introduction to Sociology	3	SOC 08120 Intro to Sociology	3
ENGL 102 - The Research Paper	3	COMP 01112 College Composition II	3
Summer 1	Cr.		Cr.
ADC 186 - Surveying	3	Technical Elective	3
Third Semester	Cr.		Cr.
MATH 137 - Geometry for Design or higher MATH*	3	INTR 99070 Free Elective	3
ADC 136 - Construction Safety and Building Codes	3	CM01410 Construction Safety and Loss Prevention	3
ADC 236 - Construction Cost Estimating I	3	Technical Elective	3
ADC 212 - Construction Materials and Detailing: Methods	3	Technical Elective	3
ADC 286 - Building Rehabilitation and Energy Retrofit	3	CM01409 Building Energy Systems for Construction Managers	3
Fourth Semester	Cr.		Cr.
ADC 261 - Construction Management and Scheduling	3	CM01306 Construction Scheduling	3
ADC 226 - Structures I — Analysis	3	INTR 99070 Free Elective	3
ADC 237 - Construction Cost Estimating II - Computer Methods & Cost-Benefit Analysis	3	CM01305 Construction Estimating Technical Elective	3
EASC 111 - Environmental Conservation	3	PLAN 31386 Land Use and Conservation (Free Elective category)	3
ENGL 115 – Public Speaking or HUM 101 - Cultural Traditions: Ancient to the 13th Century or	3	CMS 04205 Public Speaking or INTR 02075 GE Humanities Elective or ARHS 03425 Spec Prob in Art Hist	3

ADC 176 / HIST 176 - Philadelphia History: Architecture and Planning			
MINIMUM CREDITS NEEDED TO GRADUATE:	63	CREDITS EARNED:	63

<u>COURSES TO BE COMPLETED AT COLLEGE/UNIVERSITY:</u>			
First Semester		Second Semester	
Fundamentals 1	3	Project Administration	3
Fundamentals 2	3	Advanced Leadership and Business Communication	3
Project Building Systems	3	Industrial Relations in the Construction Industry	3
Rowan Core – Artistic Literacy	3	Rowan Core – Scientific Literacy	3
Rowan Core – Quantitative Literacy	3	Rowan Core – Communicative Literacy	3
SEMESTER TOTAL	15	SEMESTER TOTAL	15
Third Semester		Fourth Semester	
Principle of Accounting I	3	Building Energy Systems for Constr. Managers Capstone Course	3
Intro to Economics: Macroeconomic Perspective (ECON 04101)	3	Capstone Course	3
Intro to Economics: Microeconomic Perspective (ECON 01402)	3	Rowan Core – Humanistic Literacy	3
Strategic Planning for Operating Managers	3	Rowan Core – Global Literacy	3
Legal Environment of Business	3		
SEMESTER TOTAL	15	SEMESTER TOTAL	12
		MINIMUM CREDITS NEEDED TO GRADUATE:	120

Developed on/by:	Revised On:
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Bachelor of Arts in Construction Management

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program: Associate in Applied Science in Facilities Management Catalog year: 2021-2022		Transfer School: Rowan University Bachelor Program: (Online) Bachelor of Arts in Construction Management	
General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Applied Science (A.A.S.) in Facilities Management at Community College of Philadelphia transfers to the fully online Bachelor of Arts (B.A.) in Construction Management at Rowan University and then shows remaining requirements at Rowan University.			
Completion of the A.A.S. in Facilities Management as described in this guide leads to junior standing in the online B.A. in Construction Management at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.			
<i>Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor’s institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.</i>			
For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.			
COMMUNITY COLLEGE OF PHILADELPHIA A.A.S. Facilities Management		ROWAN UNIVERSITY B.A. Construction Management	
First Semester	CR.		CR.
ADC 101 - Introduction to Design and Construction	3	Technical Elective	3
ADC 103 - CAD Basics	3	Technical Elective	3
ADC 123 - Construction Print Reading and Specifications (Construction) or ADC 109 - Design Studio I (Design Concentration)	3 or 4	Technical Elective	3
ENGL 101 - English Composition I	3	COMP 01111 - College Composition I	3
MATH 137 - Geometry for Design (or higher MATH)	3	INTR 99070 - Free Elective	3

Second Semester	Cr.		Cr.
ADC 112 - Construction Materials and Detailing: Properties	3	Technical Elective	3
ADC 146 - Construction Supervision and Business Practices	3	INTR 99070 - Free Elective	3
ADC 253 - Environmental Systems I	3	Technical Elective	3
ENGL 102 - The Research Paper	3	COMP 01112 - College Composition II	3
ADC 176/HIST 176 - Philadelphia History: Architecture and Planning	3	ARHS 03425 - Spec Prob in Art Hist or HIST 05075 - Gen Ed History Course	3
Summer 1	Cr.		Cr.
MNGT 121 - Introduction to Business	3	Technical Elective	3
Third Semester	Cr.		Cr.
ADC 133 - Project Management in Construction (Construction Concentration) or ADC 136 - Construction Safety and Building Codes (Design Concentration)	3	Technical Elective or Building Construction Systems & Codes	3
ADC 163 - Digital Documentation in Architecture and Construction (Construction Concentration) or ADC 160 - Presentation Techniques (Design Concentration)	3	Technical Elective	3
ADC 159 - Design Studio II (Design Concentration) or ADC 246 - Contracts and Specifications (Construction Concentration)	3 or 4	Technical Elective	3
ECON 182 - Principles of Economics (Microeconomics)	3	ECON 04102 - Intro Econ-Microecon	3
Fourth Semester	Cr.		Cr.
ADC 261 - Construction Management and Scheduling (Construction Concentration) or ADC 192 - Color and Lighting (Design Concentration)	3	CM01306 Construction Scheduling Technical Elective	3
MNGT 141 - Principles of Management or MNGT 142 - Management Information Systems or	3	Technical Elective MGT 98242 - Legal Environment	3

MNGT 262 - Business Law			
ADC 254 - Environmental Systems II	3	Technical Elective	3
RE 101 - Real Estate Fundamentals	3	Technical Elective	3
EASC 111 - Environmental Conservation	3	PLAN 31386 - Land Use and Conservation	3
MINIMUM CREDITS NEEDED TO GRADUATE:	60	CREDITS EARNED:	60

<u>COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:</u>			
First Semester		Second Semester	
Fundamentals 1	3	Project Administration	3
Fundamentals 2	3	Building Energy Systems for Construction Managers	3
Project Building Systems	3	Industrial Relations in the Construction Industry	3
Building Construction Systems & Codes (or technical elective)	3	Advanced Leadership and Business Communication	3
Construction Safety and Loss Prevention	3	Construction Estimating	3
	15		15
Third Semester		<u>FOURTH SEMESTER</u>	
Construction Scheduling (or technical elective)	3	Rowan Core – Communicative Literacy	3
Capstone Course	3	Rowan Core – Humanistic Literacy	3
Strategic Planning for Operating Managers	3	Rowan Core – Global Literacy	3
Rowan Core – Humanistic Literacy	3	Rowan Core – Quantitative Literacy	3
Rowan Core – Scientific Literacy	3	Rowan Core – Quantitative Literacy	3
	15		15
MINIMUM CREDITS NEEDED TO GRADUATE:			120

Developed on/by:	Revised On:
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Bachelor of Arts in Mathematics (Comprehensive)

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program:

Associate in Science in Mathematics

Catalog: 2021-2022

Transfer School: Rowan University

Bachelor Program: Bachelor of Arts in Mathematics (Comprehensive)

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Science (A.S.) in Mathematics at Community College of Philadelphia transfers to the Bachelor of Arts (B.A.) in Mathematics (Comprehensive) at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.S. in Mathematics as described in this guide leads to junior standing in the B.A. in Mathematics (Comprehensive) at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.

**COMMUNITY COLLEGE OF PHILADELPHIA
A.S. Mathematics**
**ROWAN UNIVERSITY
B.A. Mathematics (Comprehensive)**

First Semester	CR.		CR.
ENGL 101 - English Composition I	3	COMP 01111: College Composition I	3
Lab Science Elective (BIOL, CHEM, or PHYS)	4 or 5	Lab Science Elective (BIOL, CHEM, or PHYS)	4 or 5
MATH 171 - Calculus I	4	MATH 01130: Calculus I	4
MATH 163 - Discrete Math I	4	MATH 03150: Discrete Mathematics MATH 01075: GE Math Elective	3 1
Second Semester	CR.		CR.

ENGL 102 - The Research Paper	3	COMP 01112: College Composition II	3
MATH 172 - Calculus II	4	MATH 01131: Calculus II	4
MATH 263 - Discrete Mathematics II	3	MATH 01075: GE Math Elective	3
Lab Science Elective (BIOL, CHEM, or PHYS) <i>PHYS 140 recommended</i>	4 or 5	PHYS 00220 Introductory Mechanics Free Elective	4 1
Third Semester	Cr.		Cr.
MATH 270 - Linear Algebra	4	MATH 01210: Linear Algebra MATH 01075: GE Math Elective	3 1
ANTH 112 - Cultural Anthropology or GEOG 103 - Intro to Human Geography or HIST 101 - United States History: Colonial America through the Revolutionary Era or HIST 102 - United States History: The 19th Century or HIS 103 - United States History: The 20th Century or HIST 121 - Global History I or HIST 122 - Global History II or HIST 142 - Food History or HIST 150 - History of American Health Care or SOC 101 - Intro to Sociology or SOC 115 - Gender and Society	3	ANTH 02202: Cultural Anthropology GEOG 16110: Cultural Geography (satisfies Global Literacy) HIST 05075: GE History Elective (for all history courses) SOC 08120: Intro to Sociology SOC 08075: GE Sociology Elective (satisfies Humanistic Literacy)	3
CSCI 111 - Computer Science I	4	GE Computer Science Elective	4
Lab Science Elective (BIOL, CHEM, or PHYS) <i>PHYS 241 recommended</i>	4 or 5	PHYS 00222 Introduction to Electricity/Mag Free Elective	4 1
Fourth Semester	Cr.		Cr.
MATH 271 - Calculus III	4	MATH 01230: Calculus III	4
MATH 272 - Differential Equations	4	MATH 01231: Ordinary Differential Equations MATH 01075: GE Math Elective	3 1
ENGL 115 - <i>Public Speaking (Recommended)</i> or ENGL 117 - Group and Team Communication or any course that meets the Oral	3	CMS 04205: Public Speaking (satisfies Communicative Literacy)	3

Communication/Creative Expression requirement			
CSCI 112 - Computer Science II	4	CS 04113: Introduction to Object Oriented Programming	4
MINIMUM CREDITS NEEDED TO GRADUATE:	60	CREDITS EARNED:	59 or 62

<u>COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:</u>			
First Semester		<u>SECOND SEMESTER</u>	
Phil 09130 Intro to Symbolic Logic	3	Math 01340 Modern Algebra 1	3
Stat 02320 Concepts in Stat Data Analysis	3	Math 01330 Intro to Real Analysis 1	3
Choice / Rowan Core (ARTL)	3	Choice / Gen Ed (LIT)	3
Choice / Rowan Core (GLBL / HUML)	3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
Third Semester		<u>FOURTH SEMESTER</u>	
Math Restricted Elective	3	Math 01498 Mathematics Seminar (WI)	3
Math Restricted Elective	3	Math Restricted Elective	3
Choice / Gen Ed	3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
(Choice / Gen Ed)	3		
		MINIMUM CREDITS NEEDED TO GRADUATE:	60 or 63

Developed on/by: Ik Jae Lee	Revised On:
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Bachelor of Arts in Mathematics (Education)

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program:

Associate in Science in Mathematics

Catalog: 2021-2022

Transfer School: Rowan University

Bachelor Program: Bachelor of Arts in Mathematics (Education)

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Science (A.S.) in Mathematics at Community College of Philadelphia transfers to the Bachelor of Arts (B.A.) in Mathematics (Education) at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.S. in Mathematics as described in this guide leads to junior standing in the B.A. in Mathematics (Education) at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

The Combined Advanced Degree Program (CADP) in Subject Matter Education for Math and Science majors offers the unique opportunity for undergraduate Rowan students who desire to pursue a program of study combining a bachelor's degree (BA/BS) in their discipline, a Master of Arts Degree in STEM Education (MA STEM), and initial New Jersey teacher certification.

The CADP Program is offered as a full-time five-year program only. Undergraduate students who qualify for admission into the CADP Program are allowed to take up to four graduate courses (12 credit hours) that count toward *both* their BA degree *and* their MA STEM degree. CADP students pay undergraduate tuition rates for these four graduate courses. In their +1 or 5th year, CADP students are considered graduate students and take all of the education courses that lead to New Jersey teacher certification and their master's degree in Education. A full-year (fall-spring semesters) of clinical residency (student teaching) is included in the +1 year, as required by the State of New Jersey's Department of Education. All subject-specific coursework (Math and Science) and state-mandated prerequisites must be taken *prior* to admission into the +1 year.

The New Jersey Department of Education (NJ DOE), not Rowan University, grants teacher certification based on requirements set by the state. While Rowan coursework for this program meets the academic requirements for NJ DOE certification, it is the student's responsibility to ensure that all other certification requirements are met. NJ DOE certification requirements are subject to change. Certification applications are evaluated, by NJ DOE, based on the most current state requirements. For current NJ DOE licensure information, please visit <https://www.nj.gov/education/certification/>.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.

COMMUNITY COLLEGE OF PHILADELPHIA A.S. Mathematics		ROWAN UNIVERSITY B.A. Mathematics (Education)	
First Semester	CR.		CR.
ENGL 101 - English Composition I	3	COMP 01111: College Composition I	3
Lab Science Elective (BIOL, CHEM, or PHYS)	4 or 5	Lab Science Elective (BIOL, CHEM, or PHYS)	4 or 5
MATH 171 - Calculus I	4	MATH 01130: Calculus I	4
MATH 163 - Discrete Math I	4	MATH 03150: Discrete Mathematics MATH 01075: GE Math Elective	3 1
Second Semester	CR.		CR.
ENGL 102 - The Research Paper	3	COMP 01112: College Composition II	3
MATH 172 - Calculus II	4	MATH 01131: Calculus II	4
MATH 263 - Discrete Mathematics II	3	MATH 01075: GE Math Elective	3
Lab Science Elective (BIOL, CHEM, or PHYS) <i>PHYS 140 recommended</i>	4 or 5	PHYS 00220 Introductory Mechanics Free Elective	4 1
Third Semester	Cr.		Cr.
MATH 270 - Linear Algebra	4	MATH 01210: Linear Algebra (3) MATH 01075: GE Math Elective (1)	4
ANTH 112 - Cultural Anthropology or GEOG 103 - Intro to Human Geography or HIST 101 - United States History: Colonial America through the Revolutionary Era or HIST 102 - United States History: The 19th Century or HIS 103 - United States History: The 20th Century or HIST 121 - Global History I or HIST 122 - Global History II or HIST 142 - Food History or HIST 150 - History of American Health Care or SOC 101 - Intro to Sociology or SOC 115 - Gender and Society	3	ANTH 02202: Cultural Anthropology GEOG 16110: Cultural Geography (satisfies Global Literacy) HIST 05075: GE History Elective (for all history courses) SOC 08120: Intro to Sociology SOC 08075: GE Sociology Elective (satisfies Humanistic Literacy)	3

CSCI 111 - Computer Science I	4	GE Computer Science Elective	4
Lab Science Elective (BIOL, CHEM, or PHYS) <i>PHYS 241 recommended</i>	4 or 5	PHYS 00222 Introduction to Electricity/Mag Free Elective	4 1
Fourth Semester	Cr.		Cr.
MATH 271 - Calculus III	4	MATH 01230: Calculus III	4
MATH 272 - Differential Equations	4	MATH 01231: Ordinary Differential Equations (3) MATH 01075: GE Math Elective (1)	4
ENGL 115 – <i>Public Speaking (Recommended)</i> or ENGL 117 - Group and Team Communication or any course that meets the Oral Communication/Creative Expression requirement	3	CMS 04205: Public Speaking (satisfies Communicative Literacy)	3
CSCI 112 - Computer Science II	4	CS 04113: Introduction to Object Oriented Programming	4
MINIMUM CREDITS NEEDED TO GRADUATE:	60	CREDITS EARNED:	59 or 62

Courses to be Completed at Rowan University:			
First Semester		Second Semester	
Phil 09130 Intro to Symbolic Logic	3	Math 01340 Modern Algebra 1	3
Stat 02320 Concepts in Stat Data Analysis	3	Math 01232 Mathematical Modeling	3
Choice / Rowan Core (ARTL)	3	Choice / Gen Ed (LIT)	3
Choice / Rowan Core (GLBL / HUML)	3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
Third Semester		Fourth Semester	
Math 01361 Real and Complex Variables	3	Math 01497 Mathematics Seminar (WI)	3
Math 01310 College Geometry	3	Math 01410 History of Mathematics	3

Math Restricted Elective	2 or 3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
(Choice / Gen Ed)	(3)		
MINIMUM CREDITS NEEDED TO GRADUATE:			59~63

Developed on/by: Ik Jae Lee	Revised On:
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Bachelor of Arts in Mathematics (Statistics)**CURRICULUM TRANSFER AGREEMENT GUIDELINE****Community College of Philadelphia Program:**

Associate in Science in Mathematics

Catalog: 2021-2022**Transfer School:** Rowan University**Bachelor Program:** Bachelor of Arts in Mathematics (Statistics)

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Science (A.S.) in Mathematics at Community College of Philadelphia transfers to the Bachelor of Arts (B.A.) in Mathematics (Statistics) at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.S. in Mathematics as described in this guide leads to junior standing in the B.A. in Mathematics (Statistics) at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.

COMMUNITY COLLEGE OF PHILADELPHIA
A.S. Mathematics
ROWAN UNIVERSITY
B.A. Mathematics (Statistics)

First Semester	CR.		CR.
ENGL 101 - English Composition I	3	COMP 01111: College Composition I	3
Lab Science Elective (BIOL, CHEM, or PHYS)	4 or 5	Lab Science Elective (BIOL, CHEM, or PHYS)	4 or 5
MATH 171 - Calculus I	4	MATH 01130: Calculus I	4
MATH 163 - Discrete Math I	4	MATH 03150: Discrete Mathematics MATH 01075: GE Math Elective	3 1
Second Semester	CR.		CR.
ENGL 102 - The Research Paper	3	COMP 01112: College Composition II	3
MATH 172 - Calculus II	4	MATH 01131: Calculus II	4

MATH 263 - Discrete Mathematics II	3	MATH 01075: GE Math Elective	3
Lab Science Elective (BIOL, CHEM, or PHYS) <i>PHYS 140 recommended</i>	4 or 5	PHYS 00220 Introductory Mechanics Free Elective	4 1
Third Semester	Cr.		Cr.
MATH 270 - Linear Algebra	4	MATH 01210: Linear Algebra MATH 01075: GE Math Elective	3 1
ANTH 112 - Cultural Anthropology or GEOG 103 - Intro to Human Geography or HIST 101 - United States History: Colonial America through the Revolutionary Era or HIST 102 - United States History: The 19th Century or HIS 103 - United States History: The 20th Century or HIST 121 - Global History I or HIST 122 - Global History II or HIST 142 - Food History or HIST 150 - History of American Health Care or SOC 101 - Intro to Sociology or SOC 115 - Gender and Society	3	ANTH 02202: Cultural Anthropology GEOG 16110: Cultural Geography (satisfies Global Literacy) HIST 05075: GE History Elective (for all history courses) SOC 08120: Intro to Sociology SOC 08075: GE Sociology Elective (satisfies Humanistic Literacy)	3
CSCI 111 - Computer Science I	4	GE Computer Science Elective	4
Lab Science Elective (BIOL, CHEM, or PHYS) <i>PHYS 241 recommended</i>	4 or 5	PHYS 00222 Introduction to Electricity/Mag Free Elective	4 1
Fourth Semester	Cr.		Cr.
MATH 271 - Calculus III	4	MATH 01230: Calculus III	4
MATH 272 - Differential Equations	4	MATH 01231: Ordinary Differential Equations (3) MATH 01075: GE Math Elective (1)	4
ENGL 115 - <i>Public Speaking (Recommended)</i> or ENGL 117 - Group and Team Communication or any course that meets the Oral	3	CMS 04205: Public Speaking (recommended to satisfy Rowan requirements and Communicative Literacy)	3

Communication/Creative Expression requirement			
CSCI 112 - Computer Science II	4	CS 04113: Introduction to Object Oriented Programming	4
MINIMUM CREDITS NEEDED TO GRADUATE:	60	CREDITS EARNED:	59 or 62

Courses to be Completed at Rowan University:			
First Semester		Second Semester	
Phil 09130 Intro to Symbolic Logic	3	Math 01340 Modern Algebra 1	3
Stat 02320 Concepts in Stat Data Analysis	3	Stat Restricted Elective – Group 1 or 2	3
Stat 02360 Probability & Random Variables	3	Choice / Gen Ed (LIT)	3
Choice / Rowan Core (ARTL)	3	Choice / Gen Ed	3
Choice / Rowan Core (GLBL / HUML)	3	Choice / Gen Ed	3
Third Semester		Fourth Semester	
Stat 02361 Mathematical Statistics	3	Math 01498 Mathematics Seminar (WI)	3
Stat Restricted Elective – Group 1 or 2	3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
Choice / Gen Ed	3	Choice / Gen Ed	3
(Choice / Gen Ed)	(3)		
		MINIMUM CREDITS NEEDED TO GRADUATE:	60 or 63

Developed on/by: Ik Jae Lee	Revised On:
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Bachelor of Science in Mathematics

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program:

Associate in Science in Mathematics

Catalog: 2021-2022

Transfer School: Rowan University

Bachelor Program: Bachelor of Science in Mathematics

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Science (A.S.) in Mathematics at Community College of Philadelphia transfers to the Bachelor of Science (B.S.) in Mathematics at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.S. in Mathematics as described in this guide leads to junior standing in the B.S. in Mathematics at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

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**COMMUNITY COLLEGE OF PHILADELPHIA
A.S. Mathematics**
**ROWAN UNIVERSITY
B.S. Mathematics**

First Semester	CR.		CR.
ENGL 101 - English Composition I	3	COMP 01111: College Composition I	3
Lab Science Elective (BIOL, CHEM, or PHYS)	4 or 5	Lab Science Elective (BIOL, CHEM, or PHYS)	4 or 5
MATH 171 - Calculus I	4	MATH 01130: Calculus I	4
MATH 163 - Discrete Math I	4	MATH 03150: Discrete Mathematics MATH 01075: GE Math Elective	3 1
Second Semester	CR.		CR.
ENGL 102 - The Research Paper	3	COMP 01112: College Composition II	3
MATH 172 - Calculus II	4	MATH 01131: Calculus II	4

MATH 263 - Discrete Mathematics II	3	MATH 01075: GE Math Elective (3)	3
Lab Science Elective (BIOL, CHEM, or PHYS) <i>PHYS 140 recommended</i>	4 or 5	PHYS 00220 Introductory Mechanics Free Elective	4 1
Third Semester	Cr.		Cr.
MATH 270 - Linear Algebra	4	MATH 01210: Linear Algebra (3) MATH 01075: GE Math Elective (1)	4
ANTH 112 - Cultural Anthropology or GEOG 103 - Intro to Human Geography or HIST 101 - United States History: Colonial America through the Revolutionary Era or HIST 102 - United States History: The 19th Century or HIS 103 - United States History: The 20th Century or HIST 121 - Global History I or HIST 122 - Global History II or HIST 142 - Food History or HIST 150 - History of American Health Care or SOC 101 - Intro to Sociology or SOC 115 - Gender and Society	3	ANTH 02202: Cultural Anthropology GEOG 16110: Cultural Geography (satisfies Global Literacy) HIST 05075: GE History Elective (for all history courses) SOC 08120: Intro to Sociology SOC 08075: GE Sociology Elective (satisfies Humanistic Literacy)	3
CSCI 111 - Computer Science I	4	GE Computer Science Elective	4
Lab Science Elective (BIOL, CHEM, or PHYS) <i>PHYS 241 recommended</i>	4 or 5	PHYS 00222 Introduction to Electricity/Mag (satisfies Scientific Literacy) Free Elective	4 1
Fourth Semester	Cr.		Cr.
MATH 271 - Calculus III	4	MATH 01230: Calculus III	4
MATH 272 - Differential Equations	4	MATH 01231: Ordinary Differential Equations (3) MATH 01075: GE Math Elective (1)	4
ENGL 115 - Public Speaking or ENGL 117 - Group and Team Communication or any course that meets the Oral Communication/Creative Expression requirement	3	CMS 04205: Public Speaking (satisfies Communicative Literacy)	3
CSCI 112 - Computer Science II	4	CS 04113: Introduction to Object Oriented Programming	4

MINIMUM CREDITS NEEDED TO GRADUATE:	60	CREDITS EARNED:	59 or 62
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<u>COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:</u>			
First Semester		Second Semester	
Phil 09130 Intro to Symbolic Logic	3	Math 01340 Modern Algebra 1	3
Stat 02320 Concepts in Stat Data Analysis	3	Math 01430 Intro to Complex Analysis	3
Stat 02360 Probability & Random Variables	3	Math Restricted Elective	3
Choice / Rowan Core (ARTL)	3	Choice / Gen Ed (LIT)	3
Choice / Rowan Core (GLBL / HUML)	3	Choice / Rowan Core (ARTL)	3
Third Semester		Fourth Semester	
Math Restricted Elective	3	Math 01498 Mathematics Seminar (WI)	3
Math Restricted Elective	3	Math Restricted Elective	3
Math Restricted Elective	3	Math Restricted Elective	3
Math Restricted Elective	3	Math Restricted Elective	3
Choice / Gen Ed	3	Choice/Gen Ed	3
Choice / Gen Ed	3		
		MINIMUM CREDITS NEEDED TO GRADUATE:	60 or 63

Developed on/by: Ik Jae Lee	Revised On:
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Bachelor of Science in Music Industry (Music Business Concentration)

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program:
Associate in Applied Science in Sound Recording and Music Technology
Catalog: 2021-2022

Transfer School: Rowan University
Bachelor Program: Bachelor of Science in Music Industry (Music Business Concentration)

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Applied Science (A.A.S.) in Sound Recording and Music Technology at Community College of Philadelphia transfers to the Bachelor of Science (B.S.) in Music Industry (Music Business Concentration) at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.A.S. in Sound Recording and Music Technology as described in this guide leads to junior standing in the B.S. in Music Industry (Music Business Concentration) at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.

COMMUNITY COLLEGE OF PHILADELPHIA A.A.S. Sound Recording and Music Technology

ROWAN UNIVERSITY B.S. Music Industry (Music Business Concentration)

First Semester	CR.		CR.
MUS 100 - Music Reading	3	MUS 04118 Music Fundamentals	3
MUS 101 - Piano I	1	Free Elective	1
MUS 115 - Introduction to Music Technology	3	MUS 40122 Computer Technology & Music I	3
FNMT 118 - Intermediate Algebra or higher	3	INTR 99000 NC/NON Transfb/Not Rowan Level – Free Elective	0
ENGL 101 - English Composition I	3	COMP 01111 College Composition I	3
MUS 196B - Brass Ensemble I or	1	MUS 04127 Ensemble I	1

MUS 196C - Chamber Music Ensemble I or MUS 196E - Electronic Ensemble I or MUS 196G - Jazz Guitar Ensemble I or MUS 196H - Hip Hop Ensemble I or MUS 196J - Jazz Ensemble I or MUS 196P - Pop & Rock Ensemble I or MUS 196SA - Soprano/Alto Ensemble I or MUS 196SV - Studio Voice Ensemble I or MUS 196TB - Tenor/Bass Ensemble I			
Second Semester	CR.		CR.
MUS 180 - Music Business	3	MUS 40111 Business of Music I	3
MUS 116 - Theory I	4	MUS04.110 Sight Singing and Ear Training INTR 99070 Free Elective	2 2
MUS 215 - Advanced Music Technology and Multimedia	3	MUS 40322 Audio for Video	3
MUS 102 - Piano II	1	MUS 97101 Piano Class II	1
ENGL 102 - The Research Paper	3	COMP 01112 College Composition II	3
MUS 197B - Brass Ensemble II or MUS 197C - Chamber Music Ensemble II or MUS 197E - Electronic Ensemble II or MUS 197G - Jazz Guitar Ensemble II or MUS 197H - Hip Hop Ensemble II or MUS 197J - Jazz Ensemble II or MUS 197P - Pop & Rock Ensemble II or MUS 197SA - Soprano/Alto Ensemble II or MUS 197SV - Studio Voice Ensemble II or MUS 197TB - Tenor/Bass Ensemble II	1	MUS 04128 Ensemble II	1
Third Semester	Cr.		Cr.
MUS 118 - Theory II	4	MUS 04103 Music Theory I	4
MUS 220 - ProTools - Digital Audio Editing	3	MUS 04121 Audio Recording I	3
MUS 103 - Introduction to Music	3	MUSG 06109 Music Appreciation	3
MUS 280 - Music Entrepreneurship, Licensing and Marketing	3	MUS 40113 Business of Music II	3
MUS 296B - Brass Ensemble III or MUS 296C - Chamber Music Ensemble III or MUS 296E - Electronic Ensemble III or	1	MUS 04227 Ensemble III	1

MUS 296G - Jazz Guitar Ensemble III or MUS 296H - Hip Hop Ensemble III or MUS 296J - Jazz Ensemble III or MUS 296P - Pop & Rock Ensemble III or MUS 296SA - Soprano/Alto Ensemble III or MUS 296SV - Studio Voice Ensemble III or MUS 296TB - Tenor/Bass Ensemble III			
Fourth Semester	Cr.		Cr.
MUS 260 - Sound Reinforcement and Recording Session	4	MUS 40221 Audio Recording II INTR 99070 Free Elective	3 1
MUS 290 - Music Internship	2	MUS 04075 GE Music Elective	2
PHYS 125 - Musical Acoustics	3	MUS 04075 GE Music Elective	3
ACCT 101 - Financial Accounting	4	ACC 03210 Principles of Accounting I INTR 99070 Free Elective	3 1
ADC 176/HIST 176 - Philadelphia History: Architecture and Planning or ANTH 112 - Cultural Anthropology or GEOG 103 - Introduction to Human Geography or HIST 101 - United States History: Colonial America through the Revolutionary Era or HIST 102 - United States History: The 19th Century or HIST 103 - United States History: The 20th Century or HIST 103H - United States and Pennsylvania History: The 20th Century (Honors) or HIST 121 - Global History I or HIST 122 - Global History II or HIST 142 - Food History or HIST 146 - Latino American History or HIST 150 - History of American Health Care or SOC 101 - Introduction to Sociology or SOC 115 – Gender and Society	3	ARHS 03425 Spec Prob in Art Hist/ HIST 05075 Gen ED History Course or ANTH 02202 Cultural Anthropology or GEOG 16110 Cultural Geography or HIST 05150 US Hist to 1865 or HIST 05075 GE History Elective or HIST 05075 GE History Elective or N/A or HIST 05100 West Civ to 1660 or HIST 05120 World Hist After 1500 or HIST 05075 Gen ED History Course or N/A or N/A or SOC 08120 Intro to Sociology or SOC 08075 GE Sociology Elect	3
MUS 297B - Brass Ensemble IV or MUS 297C - Chamber Music Ensemble IV or MUS 297E - Electronic Ensemble IV or MUS 297G - Jazz Guitar Ensemble IV or MUS 297H - Hip Hop Ensemble IV or MUS 297J - Jazz Ensemble IV or	1	MUS 04228 Ensemble IV	1

MUS 297P - Pop & Rock Ensemble IV or MUS 297SA - Soprano/Alto Ensemble IV or MUS 297SV - Studio Voice Ensemble IV or MUS 297TB - Tenor/Bass Ensemble I			
MINIMUM CREDITS NEEDED TO GRADUATE:	60	CREDITS EARNED:	60

<u>COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:</u>			
First Semester		Second Semester	
MUS 40212 Music Publishing	3	MUS 40213 Touring and Concert Promotion	3
MUS 40202 Introduction to Music Performance	3	ENT 06240 Entrepreneurship and Innovation	3
CMS 04205 Public Speaking	3	MUS 40201 History of Popular Music (Satisfies Artistic Literacy)	3
MUS 40211 Music Industry Internship I (Internship can be taken at any time during the year and internship report gets submitted in this course.)	3	MUS 40223 Survey of Record Production	1
MUS 97102 or MUS 97229 Piano I for Non-Majors or Guitar Class	3	MKT 09200 Principles of Marketing	3
		MUS 40314 Artist Services I	2
	15		15
Third Semester		Fourth Semester	
MUS 40412 Capstone Project in Music Industry I	2	MUS 40413 Capstone Project in Music Industry II	2
MUS 40414 Artist Services II	2	JRN 02210 Journalistic Writing	3
ENT 06342 Financing & Legal Aspects of Entrepreneurship	3	MUS 40415 Artist Services III	2
MUS 40311 Music Industry Internship II (Internship can be taken at any time during the year and internship report gets submitted in this course.)		Non-Program Course	3

MUS 40315 Entrepreneurship in the Music Industry	3	Free Elective	3
Non-Program Course	4	Free Elective	3
	14		16
MINIMUM CREDITS NEEDED TO GRADUATE:			120

Rowan Experience Requirements

Students must satisfy all three Rowan Experience attributes. Credits attached to the courses in this section will apply elsewhere.

- ☐ (LIT) Broad-Based Literature Attribute *Recommendation from major:*
- ☐ (WI) Writing Intensive Attribute *Recommendation from major:*
- ☐ (RS) Rowan Seminar Attribute *Recommendation from major:*

Rowan Core Requirements

Rowan Core

- ☐ (ARTL) Artistic Literacy *Required from major:* MUS 40201 (3 sh counted under major)
- ☐ (GLBL) Global Literacy
- ☐ (HUML) Humanistic Literacy
- ☐ (QNTL) Quantitative Literacy
- ☐ (SCIL) Scientific Literacy

The Rowan Seminar requirement is waived for all students transferring 24 or more approved credits into Rowan University at the time of initial entry.

Developed on/by:

Revised On:

Bachelor of Science in Music Industry, Music Technology Concentration

CURRICULUM TRANSFER AGREEMENT GUIDELINE

Community College of Philadelphia Program:
Associate in Applied Science in Sound Recording and
Music Technology
Catalog: 2021-2022

Transfer School: Rowan University
Bachelor Program: Bachelor of Science in Music
Industry (Music Technology Concentration)

General Information: This transfer guide was developed in support of the Program-to-Program Agreement between Community College of Philadelphia and Rowan University. It shows how the Associate in Applied Science (A.A.S.) in Sound Recording and Music Technology at Community College of Philadelphia transfers to the Bachelor of Science (B.S.) in Music Industry (Music Technology Concentration) at Rowan University and then shows remaining requirements at Rowan University.

Completion of the A.A.S. in Sound Recording and Music Technology as described in this guide leads to junior standing in the B.S. in Music Industry (Music Technology Concentration) at Rowan University. To receive transfer credit, courses must be completed with a grade of C (C=2.0) or better. The associate degree must be completed with at least a minimum 2.0 cumulative GPA.

Transfer guides are created and maintained to help students and staff make appropriate course and program choices. The guides show how the requirements for the appropriate Community College of Philadelphia associate degree transfer to the bachelor's institution. It is, however, possible for program requirements at Community College of Philadelphia or the transfer institution to change without advanced notice.

For information concerning transfer please schedule an appointment to visit a Community College of Philadelphia academic advisor or counselor. Students are also welcome to contact the transfer institution directly.

COMMUNITY COLLEGE OF PHILADELPHIA A.A.S. Sound Recording and Music Technology

ROWAN UNIVERSITY B.S. Music Industry (Music Technology Concentration)

First Semester	CR.		CR.
MUS 100 - Music Reading	3	MUS 04118 Music Fundamentals	3
MUS 101 - Piano I	1	Free Elective	1
MUS 115 - Introduction to Music Technology	3	MUS 40122 Computer Technology & Music I	3
FNMT 118 - Intermediate Algebra or higher	3	INTR 99000 NC/NON Transfb/Not Rowan Level – Free Elective	0
ENGL 101 - English Composition I	3	COMP 01111 College Composition I	3
MUS 196B - Brass Ensemble I or	1	MUS 04127 Ensemble I	1

MUS 196C - Chamber Music Ensemble I or MUS 196E - Electronic Ensemble I or MUS 196G - Jazz Guitar Ensemble I or MUS 196H - Hip Hop Ensemble I or MUS 196J - Jazz Ensemble I or MUS 196P - Pop & Rock Ensemble I or MUS 196SA - Soprano/Alto Ensemble I or MUS 196SV - Studio Voice Ensemble I or MUS 196TB - Tenor/Bass Ensemble I			
Second Semester	Cr.		Cr.
MUS 180 - Music Business	3	MUS 40111 Business of Music I	3
MUS 116 - Theory I	4	MUS04.110 Sight Singing and Ear Training INTR 99070 Free Elective	2 2
MUS 215 - Advanced Music Technology and Multimedia	3	MUS 40322 Audio for Video	3
MUS 102 - Piano II	1	MUS 97101 Piano Class II	1
ENGL 102 - The Research Paper	3	COMP 01112 College Composition II	3
MUS 197B - Brass Ensemble II or MUS 197C - Chamber Music Ensemble II or MUS 197E - Electronic Ensemble II or MUS 197G - Jazz Guitar Ensemble II or MUS 197H - Hip Hop Ensemble II or MUS 197J - Jazz Ensemble II or MUS 197P - Pop & Rock Ensemble II or MUS 197SA - Soprano/Alto Ensemble II or MUS 197SV - Studio Voice Ensemble II or MUS 197TB - Tenor/Bass Ensemble II	1	MUS 04128 Ensemble II	1
Third Semester	Cr.		Cr.
MUS 118 - Theory II	4	MUS 04103 Music Theory I	4
MUS 220 - ProTools - Digital Audio Editing	3	MUS 04121 Audio Recording I	3
MUS 103 - Introduction to Music	3	MUSG 06109 Music Appreciation	3
MUS 280 - Music Entrepreneurship, Licensing and Marketing	3	MUS 40113 Business of Music II	3
MUS 296B - Brass Ensemble III or MUS 296C - Chamber Music Ensemble III or MUS 296E - Electronic Ensemble III or	1	MUS 04227 Ensemble III	1

MUS 296G - Jazz Guitar Ensemble III or MUS 296H - Hip Hop Ensemble III or MUS 296J - Jazz Ensemble III or MUS 296P - Pop & Rock Ensemble III or MUS 296SA - Soprano/Alto Ensemble III or MUS 296SV - Studio Voice Ensemble III or MUS 296TB - Tenor/Bass Ensemble III			
Fourth Semester	Cr.		Cr.
MUS 260 - Sound Reinforcement and Recording Session	4	MUS 40221 Audio Recording II INTR 99070 Free Elective	3 1
MUS 290 - Music Internship	2	MUS 04075 GE Music Elective	2
PHYS 125 - Musical Acoustics	3	MUS 04075 GE Music Elective	3
ACCT 101 - Financial Accounting	4	ACC 03210 Principles of Accounting I INTR 99070 Free Elective	3 1
ADC 176/HIST 176 - Philadelphia History: Architecture and Planning or ANTH 112 - Cultural Anthropology or GEOG 103 - Introduction to Human Geography or HIST 101 - United States History: Colonial America through the Revolutionary Era or HIST 102 - United States History: The 19th Century or HIST 103 - United States History: The 20th Century or HIST 103H - United States and Pennsylvania History: The 20th Century (Honors) or HIST 121 - Global History I or HIST 122 - Global History II or HIST 142 - Food History or HIST 146 - Latino American History or HIST 150 - History of American Health Care or SOC 101 - Introduction to Sociology or SOC 115 – Gender and Society	3	ARHS 03425 Spec Prob in Art Hist/ HIST 05075 Gen ED History Course or ANTH 02202 Cultural Anthropology or GEOG 16110 Cultural Geography or HIST 05150 US Hist to 1865 or HIST 05075 GE History Elective or HIST 05075 GE History Elective or N/A or HIST 05100 West Civ to 1660 or HIST 05120 World Hist After 1500 or HIST 05075 Gen ED History Course or N/A or N/A or SOC 08120 Intro to Sociology or SOC 08075 GE Sociology Elect	3
MUS 297B - Brass Ensemble IV or MUS 297C - Chamber Music Ensemble IV or MUS 297E - Electronic Ensemble IV or MUS 297G - Jazz Guitar Ensemble IV or MUS 297H - Hip Hop Ensemble IV or MUS 297J - Jazz Ensemble IV or	1	MUS 04228 Ensemble IV	1

MUS 297P - Pop & Rock Ensemble IV or MUS 297SA - Soprano/Alto Ensemble IV or MUS 297SV - Studio Voice Ensemble IV or MUS 297TB - Tenor/Bass Ensemble I			
MINIMUM CREDITS NEEDED TO GRADUATE:	60	CREDITS EARNED:	60

<u>COURSES TO BE COMPLETED AT ROWAN UNIVERSITY:</u>			
First Semester		Second Semester	
MUS 40222 Computer Technology and Music II	3	MUS 40323 Sound Reinforcement I	3
MUS 40202 Introduction to Music Performance	3	ENT 06240 Entrepreneurship and Innovation	3
CMS 04205 Public Speaking	3	MUS 40201 History of Popular Music (Satisfies Artistic Literacy)	3
MUS 40211 Music Industry Internship I (Internship can be taken at any time during the year and internship report gets submitted in this course.)	3	MUS 40223 Survey of Record Production	1
MUS 97102 or MUS 97229 Piano I for Non-Majors or Guitar Class	3	MKT 09200 Principles of Marketing	3
		Free Elective	3
	15		16
Third Semester		<u>FOURTH SEMESTER</u>	
MUS 40412 Capstone Project in Music Industry I	2	MUS 40413 Capstone Project in Music Industry II	2
MUS 40321 Producing the Record	3	JRN 02210 Journalistic Writing	3
ENT 06342 Financing & Legal Aspects of Entrepreneurship	3	Non-Program Course	3
MUS 40311 Music Industry Internship II (Internship can be taken at any time during the year and internship report gets submitted in this course.)		Non-Program Course	3

Non-Program Course	4	Free Elective	3
Non-Program Course	3		
	15		14
MINIMUM CREDITS NEEDED TO GRADUATE:			60

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