

Exhibit 5

TRANSFER ADVISING GUIDE

Camden County College (CCC) to University of the Sciences in Philadelphia A.S. Liberal Arts and Science: Biology Option → B.S. Biochemistry

CCC Associate in Science Biology Option (BIO.AS)

USciences Bachelor of Science Biochemistry

CCC Courses	Cr.	USciences Courses	Cr.
ENG101 English Composition I	3	WR101 Writing & Rhetoric I	3
ENG102 English Composition II	3	WR102 Writing & Rhetoric II	3
MTH140 Calculus I	4	MA122 Calculus I	4
MTH150 Calculus II	4	MA221 Calculus II	4
CHM111 Chemistry I - Science	4	CH111 Principles of Chemistry I CH113 Principles of Chemistry Laboratory I	3 1
CHM112 Chemistry II - Science	4	CH112 Principles of Chemistry II CH114 Principles of Chemistry Laboratory II	3 1
CHM221 Organic Chemistry I <i>(serves as 200 Level Lab Science GenEd elective)</i>	4	CH211 Principles of Organic Chemistry I CH213 Principles of Organic Chemistry Lab I	3 1
CHM222 Organic Chemistry II <i>(serves as 200 Level Lab Science GenEd elective)</i>	4	CH212 Principles of Organic Chemistry II CH214 Principles of Organic Chemistry Lab II	3 1
BIO111 Biology I - Science	4	BS132 Introductory Biology I BS134 Introductory Biology I Lab [BS130 Introductory Biology I for students transferring prior to Fall 19]	3 1
BIO112 Biology II - Science	4	BS133 Introductory Biology II BS135 Introductory Biology II Lab [BS131 Introductory Biology II for students transferring prior to Fall 19]	3 1
BIO221 Microbiology <i>(serves as 200 Level Biology Lab Science Course)</i>	4	BS243 Microbial Science BS244 Microbial Science Lab [BS240 Basics of Microbiology for students transferring prior to Fall 19] <i>(serves as Free Elective)</i>	3 1
BIO255 Research Experience in Biology	3	BSX01 Biology Elective <i>(serves as Free Elective)</i>	3
PHY201 Physics III	4	PY211 Physics I	4
PHY202 Physics IV	4	PY212 Physics II	4
Social Science GenEd Elective Choose One: ANT101/101H ECO101, 102	3	<i>(serves as GenEd MD Requirement)</i>	3

GEO101 POL101, 101H, 103, 103H PSY101, 101H, 105, 106, 107, 109 SOC101, 101H			
Humanities GenEd Elective Choose One: ARA101, 102 ART101, 103, 103H, 104, 111, 112,121 CHI101, 102 DAN101 ENG121, 131, 141, 181, 191, 261, 262, 271, 271H, 272, 272H, 281, 281H, 282 FRE101, 102, 201, 202, 203 GER101, 102, 201 GRK101, 102 HIS101, 101H, 102, 102H, 103, 103H, 111, 112, 121, 122, 131, 132, 142 ITA101, 102, 201, 202, LAT101, 102, 201 MUS111, 112, 113 PHL101, 111, 121, 131, 131H, 141 RUS101, 102, 201 SPA101, 102, 105, 201, 202, 203, 204 THE121	3	<i>(serves as GenEd Humanities Requirement)</i>	3
HIS101 World Civilization I	3	<i>HIX01 History Elective (serves as GenEd MD Requirement)</i>	3
Health & Exercise Science Elective Choose One	1	PE101/102 Physical Education I/II	1
CCC credits toward AS	63	Credits Accepted	63
Additional Courses Necessary to Enter USciences with Junior (U3) Status:			
SPE102 Public Speaking	3	CO204 Public Speaking	3
Total CCC Credits	66	Total Credits Accepted	66

A minimum 2.7 cumulative GPA is required for admission.

A minimum grade of “B” in all science and mathematics courses (Prefixes: CHM, MTH, PHY, BIO). Students who do not meet these minimum grade requirements can still transfer under the terms of this articulation agreement, subject to departmental review and approval.

The courses encompassed in the A.S. degree from CCC must be completed within the three years preceding matriculation at USciences. Students who take more than 3 years to complete the A.S. degree can still transfer under this articulation agreement, subject to departmental review and approval.

CH120-Orientation for the Chemical Sciences (1 cr) and MA107 - Precalculus (3 cr) will be waived for students transferring to USciences after earning the A.S. in Liberal Arts and Science: Biology Option (BIO.AS). However, the total credits required for graduation (includes transfer credits) will remain unchanged.

Graduation from USciences with a BS degree requires completion of specified courses and a total of 121-136 credit hours, depending upon the degree program. In order to enter USciences with U3 (junior) status and to facilitate the completion of a BS degree in two years of study at USciences, all students are strongly advised to complete more than 60 total credits of course work which is eligible for transfer to USciences. Students interested in transferring to USciences are strongly urged to contact the USciences Admission Office early in their enrollment at CCC for advising.

In addition to the coursework provided in the above table, the following types of courses will be needed to complete the *General Education Discipline Requirements* in USciences' General Education Curriculum:

- 6 credits in Social Sciences
- 3 credits in Humanities

Some or all of these 9 credits of coursework can be taken at CCC or after transferring to USciences (currently included in the 3rd and 4th year at USciences). If the 9 credits are taken at CCC, they should be selected from the following lists:

<p>6 credits in Social Sciences: Select TWO</p> <p>ANT101/101H ECO101, 102 GEO101 POL101, 101H, 103, 103H PSY101, 101H, 105, 106, 107, 109 SOC101, 101H</p>	<p>GenEd Discipline Requirements – Social Sciences</p> <p>AN103 EC101, 102 SSX01 PO101 PS101, X01 SO101</p>
<p>3 credits in Humanities: Select ONE</p> <p>ARA101, 102 ART101, 103, 103H, 104, 111, 112,121 CHI101, 102 DAN101 ENG121, 131, 141, 181, 191, 261, 262, 271, 271H, 272, 272H, 281, 281H, 282 FRE101, 102, 201, 202, 203 GER101, 102, 201 GRK101, 102 HIS101, 101H, 102, 102H, 103, 103H, 111, 112, 121, 122, 131, 132, 142 ITA101, 102, 201, 202, LAT101, 102, 201 MUS111, 112, 113 PHL101, 111, 121, 131, 131H, 141 RUS101, 102, 201 SPA101, 102, 105, 201, 202, 203, 204 THE121</p>	<p>GenEd Discipline Requirements – Humanities</p> <p>AC101, AC102 AR101, ARX01 CI101, CI102 HUX01 EN201, ENX01 FR101, 102, 201, 202, HUX01 GE101, 102, 201 HUX01 HIX01, X01, X01, X01, X01, X01, 101, 102, X01, X01, X01, X01, X01 IT101, 102, X01 LA101, 102, LAX01 MUX01 PL101, X01 HUX01 SP101, 102, X01, 201, 202 HU340</p>

Suggested checklist for 3rd and 4th year at USciences based on current approved curriculum:
(this checklist is for planning purpose only and it is subject to changes; it does not constitute a contract)

THIRD YEAR AT USCIENCES		
CH 331	Basic Inorganic Chemistry	3
CH 320	Essentials of Physical Chemistry	4
CH 366	Principles of Analytical Chemistry	3
CH 367	Analyt and Phys Methods Lab I	1
CH 341	Molecular Structure Biochemistry	3
CH 300	Discussions in Chemistry	1
CH 404	Literature of Chemistry	1
BS 466	Genetics	4
CH 343	Intermediary Metabolic Chemistry	3
CH 444	Biochemistry Laboratory I	1
CH 445	Biochemistry Laboratory II	1
ST310 or MA222	Intro to Biostatistics or Calculus III	3/4

FOURTH YEAR AT USCIENCES		
CH 401	Seminar in Chemistry I	1
CH 423	Physical Chemistry Lab I	2
BS 461	Cell Biology	4
	GenEd Social Sciences Requirement	6
CH 402	Seminar in Chemistry II	1
CH 342	Nucleic Acid Biochemistry	3
	GenEd Humanities Requirement	3
	Biochemistry Program Elective	3
	Free Elective	3

Progress in Completing USciences' General Education Curriculum

[For the most recent information, see the current USciences Catalog on its website]

Discipline Requirements (minimum of 41 credits)

Discipline Requirement	Community College Courses // USciences Courses*
Natural Science (ONE semester of lab required) 7 credits	CHM111 CHM112
Mathematics 6 credits	MTH140 & MTH150
Communication (written & oral) 9 credits	ENG101 & ENG102 & SPE102
Social Sciences 6 credits	Choose Two USciences Courses: PO (Political Science), PS (Psychology), SO (Sociology), AN (Anthropology), SS (Social Sciences), EC (Economics), CO (excluding CO 101 and CO 204)
Humanities 6 credits	Choose One: ARA101, 102 ART101, 103, 103H, 104, 111, 112,121 CHI101, 102 DAN101 ENG121, 131, 141, 181, 191, 261, 262, 271, 271H, 272, 272H, 281, 281H, 282 FRE101, 102, 201, 202, 203 GER101, 102, 201 GRK101, 102 HIS101, 101H, 102, 102H, 103, 103H, 111, 112, 121, 122, 131, 132, 142 ITA101, 102, 201, 202, LAT101, 102, 201 MUS111, 112, 113 PHL101, 111, 121, 131, 131H, 141 RUS101, 102, 201 SPA101, 102, 105, 201, 202, 203, 204 THE121 Choose One USciences Course: AC (Arabic), AR (Art), CI (Chinese), CA (Classics), EN (excluding EN 101 and EN 102), FR (French), GE (German), LA (Latin), HI (History), HU (Humanities), MU (Music), PL (Philosophy), RS (Religious Studies), SP (Spanish), WC (World Cultures)
Multidisciplinary Inquiry 6 credits (may be substituted by Social Sciences &/or Humanities courses)	HIS101 Choose One: ANT101/101H ECO101, 102 GEO101

		POL101, 101H, 103, 103H PSY101, 101H, 105, 106, 107, 109 SOC101, 101H
Physical Education	1 credit	Choose One: HPE

Skills, Values, and Attitudes (one approved course for each)

Skills, Values, and Attitudes	Community College Course	USciences Course [RED = courses taken after transferring to USciences]
Ethics		CH 300
Information Literacy	BIO112	CH 404
Oral Communication		CH 401
Reasoning & Problem Solving	BIO111	
Technology	BIO111	
Written Communication		CH 423

Skills requirement is usually fulfilled by taking courses that satisfy discipline requirements that are also approved for one or more GenEd skill.