

## Exhibit 14

### TRANSFER ADVISING GUIDE

#### Brookdale Community College (Brookdale) to University of the Sciences in Philadelphia A.S. Science Option, Mathematics/Science → B.S. Pharmacology and Toxicology

#### Brookdale Associate in Science Science Option

#### USciences Bachelor of Science Pharmacology and Toxicology

Brookdale Courses	Cr.	USciences Courses	Cr.
ENGL121 English Composition: The Writing Process	3	WR101 Writing & Rhetoric I	3
ENGL122 English Composition: Writing and Research	3	WR102 Writing & Rhetoric II	3
MATH153 Pre-calculus Mathematics	4	MA107 Pre-calculus	3
MATH171 Calculus I	4	MA122 Calculus I	4
MATH172 Calculus II	4	MA221 Calculus II (serves as Elective)	4
BIOL101 General Biology I (serves as Career Studies)	4	BS109 General Biology I BS110 General Biology I Lab  [BS103 General Biology I for students transferring prior to Fall 19]	3 1
BIOL102 General Biology II (serves as Career Studies)	4	BS119 General Biology II BS120 General Biology II Lab  [BS104 General Biology II for students transferring prior to Fall 19]	3 1
CHEM101 General Chemistry I (serves as Career Studies) <i>(online course NOT accepted for transfer)</i>	5	CH101 General Chemistry I CH103 General Chemistry Laboratory I	3 1
CHEM102 General Chemistry II (serves as Career Studies) <i>(online course NOT accepted for transfer)</i>	5	CH102 General Chemistry II CH104 General Chemistry Laboratory II	3 1
CHEM203 Organic Chemistry I (serves as Career Studies)	5	CH201 Organic Chemistry I CH203 Organic Chemistry Laboratory I	3 1
CHEM204 Organic Chemistry II (serves as Career Studies)	5	CH202 Organic Chemistry II CH204 Organic Chemistry Laboratory II	3 1
PHYS111 General Physics I (Non-Calculus) (serves as Science with lab)	4	PY201 Introductory Physics I	4
COMP129 Information Technology	3	CS250 Information Technology (serves as Elective)	3
Humanities Elective <b>Choose One</b>	3-4	(serves as GenEd Humanities Requirement)	3
Social Science Elective <b>Choose One</b>	3	(serves as GenEd MD Requirement)	3
Humanities or Social Science Elective <b>Choose One</b>	3-4	(serves as GenEd MD Requirement)	3
<b>Brookdale credits toward AS</b>	<b>62-64</b>	<b>Credits Accepted</b>	<b>57</b>

<b>Additional Courses Necessary to Enter USciences with Junior (U3) Status:</b>			
PHYS112 General Physics II (Non-Calculus)	4	PY202 Introductory Physics II	4
<b>Total Brookdale Credits</b>	<b>66-68</b>	<b>Total Credits Accepted</b>	<b>61</b>

A minimum 2.7 cumulative GPA is required for admission.

A minimum grade of “B” in all science and mathematics courses (Prefixes: CHEM, MATH, PHYS, BIOL). 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 Brookdale 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.

PE101/102-Physical Education I/II (1 cr) and PC181-Pharm/Tox Orientation I (1 cr) will be waived for students transferring to USciences after earning the A.S. in Science Option, Mathematics/Science. 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 120-136 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 MCCC 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 Brookdale or after transferring to USciences (currently included in the 3<sup>rd</sup> and 4<sup>th</sup> year at USciences). If the 9 credits are taken at Brookdale, they should be selected from the following lists:

<p><b>6 credits in Social Sciences: Select TWO</b></p> <p>ANTH105, 115, 116            ECON105, 106, 107            HGEO105            POLI101, 105, 115            PSYC105, 106, 206, 207, 208, 226            SOCI101, 202, 215</p>	<p><b>GenEd Discipline Requirements – Social Sciences</b></p> <p>AN103, X01, X01            EC101, EC201, ECX01            SSX01            POX01            PS101, X01, 200, X01, 200, 201            SO101, 205, X01</p>
<p><b>3 credits in Humanities: Select ONE</b></p> <p>AMSL101, 102            ARAB101, 102            ARTH105, 106, 107            CHNS101, 102            CINE105            ENGL155, 156, 158, 231, 232, 235, 236, 245, 246, 275            FRCH101, 102, 203, 204, 206, 207            GRMN101, 102, 203, 204            HIST105, 106, 107, 108, 125, 135, 136, 137, 145, 146, 215, 217, 225, 227            HUMN125            ITAL101, 102, 203, 204            JPNS101, 102, 203, 204            MUSI115, 116            PHIL105, 115, 225, 226, 227            PHTY105            PORT101, 102            RUSS101, 102            SPAN101, 102, 203, 204, 207, 215            THTR105, 135</p>	<p><b>GenEd Discipline Requirements – Humanities</b></p> <p>HUX01, X01            AC101, 102            AR101, 340, 340            CI101, HUX01            HUX01            EN314, X01, 201, X01, 313, X01, X01, 334, 336, X01            FR101, 102, X01, X01, X01            GE101, 102, 201, 202            HIX01, X01, X01, X01, X01, X01, X01, 304, X01, X01, X01, X01, X01, X01            HUX01            HUX01, X01, X01, X01            HUX01, X01, X01, X01            MUX01, X01            PLX01, PL101, RS310, PLX01, ET303            HUX01            HUX01, X01            HUX01, X01            SP101, SP102, SP201, SP202, SP303, HUX01            HUX01, X01</p>

Suggested checklist for 3<sup>rd</sup> and 4<sup>th</sup> 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)*

<b>THIRD YEAR AT USCIENCES</b>		
BS 205*	Human Structure and Function I OR BS310 Anatomy and Physiology I	3
BS 207*	Human Structure and Function Lab I OR PC303 Virtual Physiology Lab I	1
BS 206*	Human Structure and Function II OR BS311 Anatomy and Physiology II	3
BS 208*	Human Structure and Function Lab II OR PC304 Virtual Physiology Lab II	1
BS 243	Microbial Science	3
BS 244	Microbial Science Lab	1
PC 282	Pharm/Tox Orientation II	1
	GenEd Humanities Requirement	3
PC 320	Techniques in Pharm/Tox	2
PC 330	Biomethods in Pharm/Tox	3
PH 316	Pharmaceutics & Biopharmaceutics I	3
PH 318	Pharmaceutics Lab	1
CH 346	Biochemistry	4
CH 356	Molec Biology/Genetics	3
PC 324	Pharm/Tox Seminar I	1
CO 101	Intro to Communication	3

<b>FOURTH YEAR AT USCIENCES</b>		
	GenEd Social Sciences Requirement	6
PC 411	Prin Medicinal Chem/Molecular Pharm.	4
PC 440	Pharmacology	4
PC 401	Principles of Toxicology I	4
PC 402	Principles of Toxicology II	4
PC 331	Biochem Pharm Tox	3
PC 424	Pharm/Tox Seminar II	1
WR 302	Scientific Writing	3
	Free Electives	4

\* We strongly recommend transfer students to take BS205 and BS206 in the summer prior to entering USciences as U3 students.

Note: For students transferring prior to Fall 18 the checklist differs from the one reported above; please contact USciences Transfer Advising office for the specific curriculum.'

## 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) <b>7 credits</b>	BIOL101 BIOL102
Mathematics <b>6 credits</b>	MATH153 & MATH171
Communication (written & oral) <b>9 credits</b>	ENGL121 & ENGL122 CO101
Social Sciences <b>6 credits</b>	<b>Choose Two USciences Courses:</b> PO (Political Science), PS (Psychology), SO (Sociology), AN (Anthropology), SS (Social Sciences), EC (Economics), CO (excluding CO 101 and CO 204)
Humanities <b>6 credits</b>	<b>Choose One:</b> Humanities GenEd Elective  <b>Choose One USciences Course:</b> 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 <b>6 credits</b> (may be substituted by Social Sciences &/or Humanities courses)	<b>Choose One:</b> Social Sciences GenEd Elective  <b>Choose One:</b> GenEd Elective (either Soc Sc or Humanities)
Physical Education <b>1 credit</b>	Waived

### 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		See list of USciences courses approved for Ethics
Information Literacy	BIOL102	
Oral Communication	SOCI101	Or see USciences course approved for Oral Comm
Reasoning & Problem Solving	BIOL101	
Technology	BIOL101	
Written Communication	PSYC105	Or see USciences course approved for Written Comm

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