

Exhibit 17

**TRANSFER ADVISING GUIDE**

**Delaware County Community College (DCCC) to University of the Sciences in Philadelphia  
A.S. Engineering → B.S. Physics (Biophysics, Medical Physics, Pre-Med Tracks)**

**DCCC Associate in Science  
Engineering**

**USciences Bachelor of Science  
Physics (Biophysics, Medical Physics, Pre-Med)**

<b>DCCC Courses</b>	<b>Cr.</b>	<b>USciences Courses</b>	<b>Cr.</b>
ENG100 English Composition I	3	WR101 Writing & Rhetoric I	3
ENG112 English Composition II: Writing about Lit.	3	WR102 Writing & Rhetoric II	3
COMM100 Interpersonal Communication	3	CO101 Intro to Communication	3
DPR101 Introduction to Computer Science	3	CS201 Computer Programming I	3
MAT160 Calculus I	4	MA122 Calculus I	4
MAT161 Calculus II	4	MA221 Calculus II	4
MAT260 Calculus III	4	MA222 Calculus III	4
MAT261 Differential Equations	3	MA320 Differential Equations	3
CHE110 General Chemistry I	4	CH111 Principles of Chemistry I CH113 Principles of Chemistry Lab I	3 1
CHE111 General Chemistry II	4	CH112 Principles of Chemistry II CH114 Principles of Chemistry Lab II	3 1
CHE200 Organic Chemistry I (serves as Engineering Curriculum Elective)	4	CH211 Principle of Organic Chemistry I CH213 Principle of Organic Chemistry Lab I	3 1
CHE201 Organic Chemistry II (serves as Engineering Curriculum Elective)	4	CH212 Principle of Organic Chemistry II CH214 Principle of Organic Chemistry Lab II	3 1
PHY131 Univ Physics I	4	PY211 Physics I	4
PHY132 Univ Physics I	4	PY212 Physics II	4
EGR150 Engineering Topics	1	MIX01 Misher Elective (serves as Free Elective)	1
EGR200 Engineering Statics (serves as Engineering Curriculum Elective)	3	PYX01 Physics Elective (serves as Free Elective)	3
EGR201 Engineering Dynamics (serves as Engineering Curriculum Option)	3	PY310 Mechanics	3
Diversity and Social Justice – Social Sc <b>Choose One:</b> HIS110, 120, 150, 160 POL120 PSY205, 210, 220, 221, 235, 241, 242 SOC110, 120, 180, 210/PSY225, 215	3	(serves as GenEd MD Requirement) HIX01 PO101 PSX01, 200, 347, 301, 204, 200, 201 SO101, 205, 306, AN103, SO330	3
Global Understanding- Social Sciences <b>Choose One:</b> HIS110, 120, 150, 160 PSY210, 235, 241, 242 SOC110, 120, 210/PSY225	3	(serves as GenEd MD Requirement) HIX01 PS200, 204, 200, 201 SO101, SO205, AN103	3
Humanities Elective <b>Choose One:</b> ARB101, 102 ART100, 110 ASL100, 102	3	(serves as GenEd Humanities Requirement) AC101, 102 HUX01, ARX01 HUX01	3

DRA110 ENG241, 250 FRE101, 102 GER101 HUM110, 142, 160 PHI100, 110 SPA101, 102		HUX01 ENX01 FR101, 102 GE101 HUX01, HU340, RS310 PL101, ETX01 SP101, 102	
<b>DCCC credits toward AS</b>	<b>67</b>	<b>Credits Accepted</b>	<b>67</b>
<b>Additional Courses Necessary to Enter USciences with Junior (U3) Status:</b>			
BIO110 Intro Biology I	4	BS132 Introductory Biology I BS134 Introductory Biology I Lab [BS130 Introductory Biology I for students transferring prior to Fall 19]	3 1
<b>Total DCCC Credits</b>	<b>71</b>	<b>Total Credits Accepted</b>	<b>71</b>

A minimum 2.7 cumulative GPA is required for admission.

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

The courses encompassed in the A.S. degree from DCCC 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 USciences departmental review and approval.

PE101/102-Physical Education I/II (1 cr), MA107 – Precalculus (3 cr) and PY100 – Physics Orientation (1 cr) will be waived for students transferring to USciences after earning the A.S. in Engineering. 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 DCCC 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 DCCC 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 DCCC, they should be selected from the following lists:

<b>6 credits in Social Sciences: Select TWO</b> ECO210, 220 EDU200	<b>GenEd Discipline Requirements – Social Sciences</b> EC101, 201 PL302
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POL120, 200 PSY200, 202, 204, 205, 210, 220, 221, 225, 235, 241, 242 SOC110, 120, 180, 210/PSY225, 215, 260  <b>3 credits in Humanities: Select ONE</b> ARB101, 102 ART100, 110 ASL100, 102 DRA110 ENG241, 250 FRE101, 102 GER101 HUM110, 142, 160 PHI100, 110 SPA101, 102	PO101 PS309, X01, X01, X01, 200, 347, 301, X01, 204, 200, 201 SO101, 205, 306, AN103, SO330, SSX01  <b>GenEd Discipline Requirements – Humanities</b> AC101, 102 HUX01, ARX01 HUX01 HUX01 ENX01 FR101, 102 GE101 HUX01, HU340, RS310 PL101, ETX01 SP101, 102
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Suggested checklist for 3<sup>rd</sup> and 4<sup>th</sup> year at USciences for **BS in Physics (Biophysics track)** 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		
PY 213	Physics III	3
ST 320	Introduction to Probability	3
PY 301	Modern Physics I	3
PY 370	Math Methods for the Phys Sci I	3
MA 316	Linear Algebra	3
PY 380	Electronics	3
PY 406	Advanced Lab	1
PY 410	Electricity and Magnetism	3
PY 371	Math Methods for the Phys Sci II	3
FOURTH YEAR AT USCIENCES		
PY 495	Undergraduate Research in Physics	2
PY 420	Optics and Wave Phenomena	3
PY 450	Quantum Mechanics	3
CH 341	Molecular Structure Biochemistry	3
PY 431	Statistical Mechanics	3
PY 496	Advanced Research in Physics	3
PY 340	Biophysics I	3
	GenEd Humanities Requirement	3
	GenEd Social Sciences Requirement	6

Suggested checklist for 3<sup>rd</sup> and 4<sup>th</sup> year at USciences for **BS in Physics (Medical Physics track)** 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>		
PY 213	Physics III	3
ST 320	Introduction to Probability	3
PY 301	Modern Physics I	3
PY 380	Electronics	3
CH 341	Molecular Structure Biochemistry	3
PY 406	Advanced Lab	1
PY 410	Electricity and Magnetism	3
PY 302	Modern Physics II	3

<b>FOURTH YEAR AT USCIENCES</b>		
PY 495	Undergraduate Research in Physics	2
PY 420	Optics and Wave Phenomena	3
PY 412	Physics of Radiation Therapy	3
PY 411	Advanced Electromagnetism	3
	GenEd Humanities Requirement	3
	GenEd Social Sciences Requirement	6
PY 496	Advanced Research in Physics	3
PY 340	Biophysics I	3
PY 305	Physics Seminar	1

Suggested checklist for 3<sup>rd</sup> and 4<sup>th</sup> year at USciences for **BS in Physics (Pre-Med track)** 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>		
PY 213	Physics III	3
	Statistics Elective	3
PY 301	Modern Physics I	3
PY 380	Electronics	3
CH 341	Molecular Structure Biochemistry	3
PY 406	Advanced Lab	1
PY 410	Electricity and Magnetism	3
PY 302	Modern Physics II	3
BS 466	Genetics	4

<b>FOURTH YEAR AT USCIENCES</b>		
PY 495	Undergraduate Research in Physics	2
PY 380	Electronics	3
PY 420	Optics and Wave Phenomena	3
PY 412	Physics of Radiation Therapy	3
	GenEd Humanities Requirement	3
	GenEd Social Sciences Requirement	6
PY 496	Advanced Research in Physics	3
PY 340	Biophysics I	3
PY 305	Physics Seminar	1

## 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>	CHE110 & CHE111
Mathematics <b>6 credits</b>	MAT160 & MAT161
Communication (written & oral) <b>9 credits</b>	ENG100 & ENG112 & COMM100
Social Sciences <b>6 credits</b>	<p><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)</p>
Humanities <b>6 credits</b>	<p><b>Choose One:</b>            ARB101, 102            ART100, 110            ASL100, 102            DRA110            ENG241, 250            FRE101, 102            GER101            HUM110, 142, 160            PHI100, 110            SPA101, 102</p> <p><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)</p>
Multidisciplinary Inquiry <b>6 credits</b> (may be substituted by Social Sciences &/or Humanities courses)	<p><b>Choose One:</b>            HIS110, 120, 150, 160            POL120            PSY205, 210, 220, 221, 235, 241, 242            SOC110, 120, 180, 210/PSY225, 215</p> <p><b>Choose One:</b>            ART110            ENG241            PHI100</p>
Physical Education <b>1 credit</b>	<b>Waived</b>

*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	BIO111	
Oral Communication		PY305
Reasoning & Problem Solving	BIO110	
Technology	BIO110	
Written Communication		See list of USciences courses approved for Written Com

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