



# ADVISING WORKSHEET: BIOCHEMISTRY - DPT

## MAJOR NOTES

### Admission Criteria into the Accelerated 3+3 Program:

Decisions regarding admission into the university will be made by the Office of Admissions. Admission into the DPT accelerated (3+3) program will be available to students who meet the criteria (3.5 high school GPA). Admission into the accelerated program will be determined by the Department of Physical Therapy admissions committee in accordance with the university undergraduate admissions policies. Upon timely completion of ALL admission criteria, applicants will be offered admission into the accelerated program upon entrance into the university and upon timely completion of ALL admission criteria will be offered conditional guaranteed admission into the graduate DPT Program, as determined by the maximum number of allotted seats in the program as determined by accreditation. Students within the accelerated (3+3) format will follow a curricular plan in one of four majors with "DPT" listed as the student's second major. The majors include Biochemistry, Biology, Healthcare Science or Psychology. It is also highly recommended that the Alvernia 3+3 students take Neuroscience (BIO 208) and Kinesiology (BIO 211).

Accelerated 3+3 and 4+3 students who have met all of the criteria, must achieve the required GPA for admission into the DPT program by **January 15** of their junior year to progress into the graduate DPT program. Applicants will be notified of their acceptance status into the program by **March 1**.

In order to enter the DPT program within the Alvernia accelerated (3+3) format, students must complete the following pre-admission criteria:

- Achieve a cumulative GPA of 3.25, Science GPA of 3.0, pre-requisite GPA of 3.0
- Achieve a minimum grade of "C" in all pre-requisite courses
- All DPT prerequisite courses (listed below) must be taken at a four-year accredited institution. If taken at another institution, only courses in which the student achieved a grade of "B", or higher, will be transferred.
- All 3+3 students must follow the guidelines for applying to the program and submit all required documents through the Physical Therapy Centralized Application Service (PTCAS), which can be accessed through the DPT Program homepage. All decisions are contingent upon the applicant's maintaining admission criteria throughout the final semester.
- A minimum of 100 hours of observation, which shall include experiences in a broad range of settings that include both outpatient and inpatient physical therapy settings. Recommended settings include: skilled nursing facilities, assisted living facilities, pediatric intervention settings, home health settings, acute or sub-acute inpatient rehabilitation settings, acute hospital settings, sports and orthopedic settings, and/or private practices.
- Three letters of reference that shall include one each from a: licensed PT, professor, and other non-family member. Applicants should ensure that their chosen references have knowledge of and can speak to the qualities/attributes required of a doctorally prepared health professional and to their readiness to handle the academic rigor of doctoral study.
- Advanced Placement (AP) courses taken in high school, if accepted by undergraduate admissions upon entrance into the university, will be accepted as fulfilling the pre-requisites for entrance into the DPT Program. These courses must appear on the undergraduate transcript.
- Non-science pre-requisites (statistics, social science, psychology) may be completed online. For science pre-requisites (biology, chemistry, physics, anatomy and physiology), the lecture portion of each course may be taken online, but the laboratory portion of each course must be taken in a traditional laboratory setting.

Doctor of Physical Therapy Program at Alvernia University is accredited by the Commission on Accreditation in Physical Therapy (CAPTE), 3030 Potomac Avenue, Suite 100, Alexandria, Virginia 22305-3085; telephone: 703-706-3245; email: [accreditation@apta.org](mailto:accreditation@apta.org); website: <http://www.capteonline.org>. If needing to contact the program/institution directly, please call 610-568-1546 or email [christopher.wise@alvernia.edu](mailto:christopher.wise@alvernia.edu). For more information regarding the process of accreditation, please contact the:

Commission on Accreditation in Physical Therapy Education  
3030 Potomac Avenue, Suite 100  
Alexandria, VA 22305-3085  
Phone: 703-706-3245  
Email: [accreditation@apta.org](mailto:accreditation@apta.org)

### **DPT Prerequisite Courses (must have "C" or greater):**

- Human Anatomy and Physiology I and II - 4 credits each with lab
- Biology – 3-4 credits (excluding BIO 109, BIO 203, BIO 115/116)
- Chemistry I and II - 4 credits each with lab
- Physics I and II - 4 credits each with lab
- Social Sciences – 6-9 credits (psychology, sociology/anthropology, humanities)
- Statistics - 3 credits
- English Composition/Writing - 3 credits
- Humanities/Communications - 3 credits (COM 103) OR Interpersonal Communication - 3 credits (COM 213)

**All prerequisite courses must be completed within 10 years of application to the DPT Program.**

**\*Admission Requirements subject to change.**

Matriculation Year 2022-2023

**General Education (55-56 credits)**

First Year Curriculum: Enduring Questions	Credits Required	Course	Term	Grade	Credits Earned
SRH 101: Search Sem-Enduring Questions or HNR 160: Honor Search-Enduring Questions	3	SRH 101/ HNR 160			
COM 101: Composition & Research (Must earn a C or higher)	3	COM 101			
THE 105: Foundations of Theology	3	THE 105			
PHI 105: Introduction to Philosophy	3	PHI 105			

Mid-Level Liberal Arts Exploration	Credits Required	Course	Term	Grade	Credits Earned
<b>EXPLORING THE NATURAL WORLD (6-8 credits)</b>					
Lab Science (Biology, Chemistry, Physics )	4	MET IN REL. AREA			
Math (Other than MAT 100)	3	MET IN REL. AREA			
<b>INDIVIDUALS &amp; COMMUNITIES (6 credits)</b>					
History or Political Science	3				
PSY, HIS, POS, SOC, SSC, or ECON (PSY 101)	3	MET IN REL. AREA			
<b>CULTURE &amp; LANGUAGE (9 credits)</b>					
Communication (Not COM 100 or 101)	3				
World Language – 2 courses in sequence	3				
	3				
<b>CREATIVE EXPRESSIONS (6 credits)</b>					
Literature (ENG)	3				
Art or Music or Theatre	3				

Ethical Leaders and Followers	Credits Required	Course	Term	Grade	Credits Earned
Theology or Philosophy (200-400 level)	3				
Theology or Philosophy (Ethics/Morality @ 200 level)	3				

Paths of Knowledge – Choose 1 Path		PoK may count towards minor or Related Requirements, but not Mid-Level Arts Exploration requirements.			
<p>_____PATH 1:</p> <p><b>Interdisciplinary Study (IS)</b> Three courses, at least two from Liberal Arts disciplines, not the major, at the 200-400 level from the interdisciplinary minors of Women &amp; Gender Studies, Digital Media, Community &amp; Environmental Sustainability, Community Engagement, Cultural Studies, Leadership Studies or Pre-Law.</p>	<p>_____PATH 2:</p> <p><b>Multi-disciplinary Study (MS)</b> Three courses, at least two from Liberal Arts disciplines, not the major, at the 200-400 level employing multiple disciplinary perspectives to explore the Enduring Questions in one of the following themes: Cultural &amp; Global Studies, Imagination &amp; Creativity, Peace &amp; Conflict, Poverty &amp; Wealth or Sustainability, Science &amp; Technology.</p>	<p><b>BIOLOGY REQUIRED PATH 3:</b> <b>In-depth Disciplinary Study (DS)</b> Three courses at the 200-400 level in one Liberal Arts discipline other than one’s major, guided by common ideas and methods of inquiry. Students choose from Art, Biology, Chemistry, Communication, Computer Science, Economics, English, History, Mathematics, Music, Philosophy, Political Science, Psychology, Sociology, Theology, Theatre or World Languages. This path may be used to give students a firm foundation in a discipline supporting their chosen major, or to pursue an interest in one of the Liberal Arts disciplines.</p>			
Course (See Catalog for lists of approved courses for each area.)		Area or Discipline	Term	Grade	Credits Earned
BIO 221 (REL. AREA)					4
BIO 303/309 (REL. AREA)					4
BIO 304/311 or BIO 409 (REL. AREA)					3-4

## BS BIOCHEMISTRY (108-112credits)

REQUIRED MAJOR COURSES (29 credits)				
Course	Pre-Requisites	Co-Requisites	Grade	Credits
CHE 104: General Chemistry I		CHE 110 or 112		3
CHE 110: General Chemistry Lab I		CHE 104		1
CHE 105: General Chemistry II	CHE 104, 110	CHE 111		3
CHE 111: General Chemistry Lab II	CHE 104, 110	CHE 105		1
CHE 107: Laboratory Safety				1
CHE 201: Organic Chemistry I	CHE 104, 105, 110	CHE 210		3
CHE 210: Organic Chemistry Lab I	CHE 104, 105, 110	CHE 201		1
CHE 202: Organic Chemistry II	CHE 201, 210	CHE 211		3
CHE 211: Organic Chemistry Lab II	CHE 201, 210	CHE 202		1
CHE 301: Physical Chemistry I	CHE 104, 105, 110			3
CHE 310: Physical Chemistry Lab I	CHE 105, 111			1
CHE 302: Physical Chemistry II	CHE 301	CHE 303		3
CHE 311: Physical Chemistry II Lab	CHE 301, 310			1
CHE 401: Biochemistry	CHE 104, 105, 110 or, 201, 210, 202, 211			3
CHE 410: Biochemistry Lab	CHE 104, 105, 110 or, 201, 210, 202, 211	CHE 401		1
Select one 6-credit option =>	<b>6 credits Research Sequence (SCI 406/407) or 6 credits Biology Internship (SCI 480):</b> <b>MET WITH DPT 508 &amp; 509</b>			<b>X</b>
REQUIRED MAJOR ELECTIVES (4 credits)				
BIO 108: HUMAN A&P II				3
BIO 118: HUMAN A&P II LAB				1
RECOMMENDED (3 credits)				
MAT 131: PRE-CALCULUS				3
RELATED REQUIREMENTS (38-42 credits)				
Course	Pre-Requisites			Credits
BIO 103: Principles of Biology				4
BIO 107: Human A&P 1 (Sub for BIO 104)				3
BIO 117: Human A&P I Lab (Sub for BIO 104)				1
BIO 221: General Microbiology	BIO 103,104, 107/117 or instructor perm.			4
BIO 303 & 309: Genetics and Lab	BIO 103 or instructor permission			4
BIO 304: Cell Biology & BIO 311 or BIO 409: Immunology	BIO 103, CHE 105, 202			4
PHY 200: Physics I	MAT 230 or MAT 230 as a Co-Requisite			4
PHY 201: Physics II	PHY 200			4
MAT 209: Probability & Statistics	Math placement			3
MAT 220: Math Stats Computer Lab				1
MAT 230: Calculus I	MAT 131 or math placement			4
PSY 101: Introductory Psychology				3
SCI 402: Seminar	<b>MET WITH DPT 522 &amp; 528</b>			<b>X</b>
DOCTOR OF PHYSICAL THERAPY (37 credits)				
COURSE	Pre-Requisite			Credits
DPT 500 Gross Anatomy & Histology				5
DPT 502 Kinesiology				4
DPT 503 Applied Physiology for Physical Therapy				5
DPT 504 Practice Management I				3
DPT 508 PT Procedures I				4
DPT 509 Found Clinical Exam & Eval				4
DPT 512 Critical Inquiry I				1
DPT 516 Musculoskeletal PT Prac I				3
DPT 520 Neuromuscular PT Prac I				3
DPT 522 Foundations of Clinical Practice				1
DPT 523: Clinical Practice 1				1
DPT 528 Cardiopulmonary Phys Therapy Pract I				3

\*\*\* Please be advised to double check the 22-23 Course Catalog to ensure that you meet all prerequisite expectations for all required and related classes for this major.\*\*\*

### BIOCHEMISTRY/DPT FOUR (4) YEAR PLAN (3+3 Curriculum Plan)

During the first 3 semesters, it is important for students to make substantial progress toward completing those BIO and CHE courses that are pre-requisites for other required science courses. **\*Courses in bold are DPT Prerequisites.**

**The below is not intended to represent a prescribed course progression**

Semester 1	Credits	Semester 2	Credits
<b>*SRH 101: First Year or HNR 160: Search Seminar-Enduring Questions</b>	3	<b>*BIO 221: General Microbiology w/lab</b>	4
<b>*BIO 103: Principles of Biology w/lab</b>	4	<b>*CHE 105: General Chemistry II</b>	3
<b>*CHE 104: General Chemistry I</b>	3	<b>*CHE 111: General Chemistry Lab II</b>	1
<b>*CHE 110: General Chemistry Lab I</b>	1	MAT 230: Calculus I	4
<b>*CHE 107: Laboratory Safety</b>	1	<b>*PSY 101</b>	3
COM 101: Composition & Research or MAT 131 (if needed)	3	COM 101 or THE 105 or PHI 105	3
TOTAL	15	TOTAL	18

**Students should expect to take additional coursework (3-6 credits) over the summer or winterim in order to complete this program. A BS in BIOCHEMISTRY is awarded at the end of the 4<sup>th</sup> year. The remainder of the DPT curriculum will result in the earning of the DPT.**

Semester 3	Credits	Semester 4	Credits
<b>*CHE 201: Organic Chemistry I</b>	3	<b>*BIO 108/118 (counts as the BIO/CHE elective)</b>	4
<b>*CHE 210: Organic Chemistry Lab I</b>	1	<b>*BIO 304/311: Cell Biology w/lab (or BIO 409: Immunology offered in Fall) or Gen Ed SEARCH</b>	3-4
<b>*BIO 303: Genetics</b>	3	<b>*CHE 202: Organic Chemistry II</b>	3
<b>*BIO 309: Molecular Genetics Lab</b>	1	<b>*CHE 211: Organic Chemistry Lab II</b>	1
THE 105/PHI 105 if not taken	3	Gen Ed SEARCH	3
<b>*BIO 107/117 (subs for BIO 104)</b>	4	Gen Ed SEARCH	3
Gen Ed SEARCH or <b>BIO 409 (if chosen over BIO 304/311; keep in mind that BIO 409 is offered every other year so BIO 409 may need to be taken in Junior Fall semester instead)</b>	3	TOTAL	17-18
TOTAL	18		

Semester 5	Credits	Semester 6	Credits
<b>*CHE 401 Biochemistry</b>	3	<b>*PHY 201: Physics II w/lab</b>	4
<b>*CHE 410 Biochemistry lab</b>	1	<b>*CHE 302: Physical Chemistry II</b>	3
<b>*PHY 200: Physics I w/lab</b>	4	<b>*CHE 311: Physical Chemistry II lab</b>	1
<b>*CHE 301: Physical Chemistry I</b>	3	MAT 209: Probability and Statistics	3
<b>*CHE 310: Physical Chemistry I lab</b>	1	MAT 220: Math/Stats Computer Lab	1
Gen Ed SEARCH	3	Gen Ed SEARCH	3
Gen Ed SEARCH	3	Gen Ed SEARCH	3
TOTAL	18	TOTAL	18

**By January 15 of Junior Year: Must meet DPT Progression Requirements: GPA: overall 3.5; Science 3.5**

Semester 7	Credits	Semester 8	Credits
<b>*DPT 500 Gross Anatomy &amp; Histology</b>	5	<b>*DPT 502 Kinesiology</b>	4
<b>*DPT 503 Applied Physiology for Physical Therapy</b>	5	<b>*DPT 516 Musculoskeletal Practice I</b>	3
<b>*DPT 504 Practice Management I</b>	3	<b>*DPT 520 Neuromuscular Practice I</b>	3
<b>*DPT 508 PT Procedures I</b>	4	<b>*DPT 509 Found Clin Exam &amp; Eval</b>	4
<b>*DPT 512 Critical Inquiry I</b>	1	<b>*DPT 528 Cardio Practice I</b>	3
<b>*DPT 522 Foundations of Clinical Practice</b>	1	<b>*DPT 523 Clinical Practice I</b>	18
TOTAL	19	TOTAL	18

ADDITIONAL GRADUATION REQUIREMENTS	RESIDENCY REQUIREMENTS	GRADUATION CREDITS EARNED
<input type="checkbox"/> SRH 101/HNR 160: Search Seminar-Enduring Questions	<input type="checkbox"/> Minimum of 123 non-remedial credits earned	General Education credits earned
<input type="checkbox"/> HUMAN DIVERSITY	<input type="checkbox"/> 45 of last 60 credits	Major and Related Area credits earned
<input type="checkbox"/> SENIOR CAPSTONE	<input type="checkbox"/> Minimum of 12 Alvernia credits in the major	Elective and/or Minor credits earned
<input type="checkbox"/> WRITING ENHANCED COURSE (met w/ CHE 211)	<input type="checkbox"/> Minimum of 9 Alvernia credits in the minor (if applicable)	SUBTOTAL
<input type="checkbox"/> COMMUNITY SERVICE HOURS		SUBTRACT CREDITS EARNED FOR MAT 100, COM 100
<input type="checkbox"/> OVERALL GPA = 3.25 or higher		<b>TOTAL GRADUATION CREDITS</b>
<input type="checkbox"/> GPA IN MAJOR = 3.25 or higher		
<input type="checkbox"/> SCIENCE PA = 3.00 or higher		

Academic Policy on **Eligibility for Participation of May Commencement Ceremony**: The academic policy, which the Registrar follows, is: A student who has 6 or less credits remaining to complete the degree may participate in the May Commencement Ceremony. **Application**  
**Deadlines**: August Graduation - December 1; December Graduation - March 1; May Graduation - October 1.  
Any questions, please call the Registrar's Office.