RESEARCH BRIEF

The Predictive Strength of the Physician Assistant College Admissions Test (PA-CAT) Scores to the Class of 2027 Program Performance at Miami-Dade College Physician Assistant Program

University: Class of 2027 Report

Avril Nimblett-Clark, DMSc, MS, PA-C (1), Scott Massey, PhD, PA-C, Rajat Chadha, PhD (Psychometrician for PA-CAT)

(1) University

Date: January 2027

Exam Master®

PA-CAT
Physician Assistant College Admissions Test

Miami Dade College Physician Assistant Program
Medical Campus
950 NW 20th Street
Miami, FL 33127

Mission:
The mission of the Miami Dade Physician Assistant Program is to educate and train students from a culturally diverse background to become competent primary care physician assistants who will serve the medically underserved patients in urban and rural communities in Florida. The program also promotes academic excellence, high professional standards, and the development of lifelong learners.

Director: Avril Nimblett-Clarke, DMSc, MS, PA-C



Dr. Nimblett-Clarke serves as the Program Director and Chairperson of the Physician Assistant program. She holds a Bachelor of Science degree in Physician Assistant Studies from Howard University and a Master and Doctoral degree in Educational Leadership from A.T. Still University. She has more than 20 years of clinical experience as a Certified Physician Assistant. Her primary clinical practice areas are general pediatrics, adolescent medicine, and sickle cell research. She has also held the roles of Assistant Professor and Academic Coordinator. On a national level, she has served as a facilitator for the Physician Assistant Education Association (PAEA) New Faculty Skill Workshop mentoring new faculty. She is a member of the PAEA leadership committee, where she continues to contribute to a platform of building excellence in leadership among Physician Assistant faculty. Dr. Nimblett-Clarke is passionate about student success and is committed to growing a community of servant leaders." Dr. Nimblett-Clarke was awarded the 2021 Capstone Award of Excellence from A.T. Still University for her capstone project, "Classroom Assessment Techniques in Physician Assistant Education: Improving Learning Gains."

Scott Massey, PhD, PA-C



With over three decades of experience in PA education, Dr. Scott Massey is a recognized authority in the field. He has demonstrated his expertise as a program director at the esteemed Central Michigan University and as the research chair in the Department of PA Studies at the University of Pittsburgh.

Dr. Massey's earlier published research examined how formative and summative assessments administered during PA education relate to subsequent performance on the Physician Assistant

National Certifying Examination (PANCE). His later contributions to PA-CAT research extended this focus on predictive assessment to an earlier stage of the educational pathway, with findings demonstrating statistically significant positive associations between PA-CAT scores and subsequent academic performance among students in the PA programs studied.

As a principal investigator and coauthor on PA-CAT studies, Dr. Massey has contributed to research examining the potential role of admissions assessments in evaluating academic readiness. Studies involving participating PA programs have identified positive associations between PA-CAT scores and selected academic outcomes, including first-semester GPA and didactic performance. These findings contribute to the growing body of evidence examining the potential value of pre-matriculation assessments in informing holistic admissions decisions.

Rajat Chadha, PhD



Dr. Rajat Chadha, with a PhD in Education from Indiana University, Bloomington, is an expert psychometrician with more than 14 years of extensive experience working on multiple significant projects. Dr. Chadha has worked as a psychometrician in high-stakes certification for physicians in the United States. He has also worked on predictive risk modeling for Physician Assistant programs and has published book chapters and peer-reviewed articles in leading journals.

Additional Information

For questions about this research brief, requests for access to the full study, or information on implementing the PA-CAT at your program, please contact:

PA-CAT Implementation Team

Research Brief: The Predictive Strength of the Physician Assistant College Admissions Test (PA-CAT) Scores to the Class of 2027 Program Performance at Miami-Dade College Physician Assistant Program

Abstract

The PA-CAT is a 240-item specialized discipline-specific assessment that is designed to measure knowledge and application in nine prerequisite science subjects necessary for success in the demanding Physician Assistant (PA) curriculum. The PA-CAT has been developed specifically for use by PA educators and their admissions departments as part of a holistic admissions process. As of May 20, 2026, the assessment has been administered to 6,841 candidates. PA-CAT Composite scaled score based on all items comprising the assessment and three subject scaled scores (Anatomy & Physiology, Biology, and Chemistry) are reported for each examinee. The reliability of PA-CAT Composite scaled scores is very high (0.941), indicating that the PA-CAT Composite scaled scores are very dependable. This means that it is highly likely that the PA-CAT examinees with higher PA-CAT scaled scores have higher knowledge and application skills in the prerequisite science subjects, thereby serving as a predictor of success in a PA Program's curriculum.

The current research study investigated the relationship between the PA-CAT scores and performance in the didactic year of the incoming class of 2027 (n=49) at Miami-Dade College PA program. Results indicate that all four PA-CAT scores have a statistically significant ($p<.05$) positive correlation with PAS 1803, PAS 1823, and Semester 2 GPA. Additionally, PA-CAT composite scores and selected subject scores were significantly and positively correlated ($p<.05$) with PAS 1813, Semester 3 GPA, PAS 1811C, PAS 1824, PAS 1820C, PAS 1831, Semester 1 GPA, and PAS 1801C.

Class of 2027 Data

The data set for the class of 2027 comprised of 49 records for whom PA-CAT scores were available. DEH 2810L was excluded from the analysis because of limited variability – most students received a score of 100.

IBM SPSS Statistics version 29 was used for the analysis. The average PA-CAT Composite score was 522.1 (SD=35.9) with a minimum and maximum of 458 and 657, respectively (Table 1).

Table 1: Descriptive Statistics

Score	Mean	Standard Deviation	Minimum	Maximum
PA-CAT Composite	522.1	35.9	458	657

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PA-CAT Anatomy Physiology	527.5	41.7	448	663
PA-CAT Biology	522.7	37.7	450	650
PA-CAT Chemistry	519.2	50.1	420	765

Correlation between Performance Variables and PA-CAT Composite Scores

Several performance variables in the didactic year of the PA program are statistically significantly ($p<0.05$) correlated with PA-CAT Composite scores. Correlation between PA-CAT Composite scores and performance variables are presented in tables that follow. Statistically significant results highlighted in red. The higher a student's PA-CAT Composite score, the higher the expected score on these performance variables.

The highest correlation of PA-CAT Composite scores is with Semester 2 GPA (0.463), PAS 1803 (0.462), PAS 1823 (0.425), PAS 1813 (0.411), and PAS 1820C (0.360). PAS 1800C, PAS 2936, PAS 1831, HAS 2532, PAS 1812, PAS 1822L, HSA 3533, HSC 3202, PAS 3038C, and PAS 3075 are not associated with PA-CAT Composite scores at the 5% significance level.

Scatter plots for all performance variables with PA-CAT Composite scores are included in Appendix A.

Table 2: Pearson correlation coefficients between performance variables and PA-CAT Composite scores

	PA-CAT Composite	PAS 1800C	PAS 2936	PAS 1803	PAS 1831	HAS 2532	Semester 1 GPA	PAS 1801C	PAS 1811C
PA-CAT Composite	1								
PAS 1800C	-0.112	1							
PAS 2936	0.179	0.279	1						
PAS 1803	.462**	.406**	.336*	1					
PAS 1831	0.219	.528**	0.241	.652**	1				
HAS 2532	0.083	.582**	.365**	.328*	.482**	1			
Semester 1 GPA	.289*	.578**	.350*	.804**	.766**	.499**	1		
PAS 1801C	.291*	.478**	.339*	.543**	.511**	.290*	.583**	1	
PAS 1811C	.332*	.449**	.429**	.688**	.677**	.423**	.582**	.696**	1
PAS 1812	-0.136	0.094	0.234	-0.004	-0.003	0.006	-0.003	0.104	0.081

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 3: Pearson correlation coefficients between performance variables and PA-CAT Composite scores

	PA-CAT Composite	PAS 1813	PAS 1822L	PAS 1823	HSA 3533	Semester 2 GPA	PAS 1824	HSC 3202
PA-CAT Composite	1							
PAS 1813	.411**	1						
PAS 1822L	0.208	.379**	1					
PAS 1823	.425**	.632**	.633**	1				
HSA 3533	0.172	.401**	.369**	.480**	1			
Semester 2 GPA	.463**	.758**	.402**	.792**	.516**	1		
PAS 1824	.322*	.677**	.472**	.610**	.347*	.655**	1	
HSC 3202	0.105	-0.027	-.426**	-0.271	-.286*	-0.079	-0.062	1
PAS 1820C	.360*	.769**	.512**	.773**	.557**	.820**	.654**	-0.181

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4: Pearson correlation coefficients between performance variables and PA-CAT Composite scores

	PA-CAT Composite	PAS 3038C	PAS 3075
PA-CAT Composite	1		
PAS 3038C	0.224	1	
PAS 3075	0.232	.467**	1
Semester 3 GPA	.351*	.628**	.772**

**. Correlation is significant at the 0.01 level (2-tailed).

Correlation between Performance Variables and PA-CAT Anatomy & Physiology Scores

Several performance variables are statistically significantly ($p<0.05$) correlated with PA-CAT Anatomy & Physiology scores. Correlation between PA-CAT Anatomy & Physiology scores and performance variables are presented in tables that follow. Statistically significant results are highlighted in red. The higher a student's PA-CAT Anatomy & Physiology score, the higher the expected score on these performance variables.

The highest correlation of PA-CAT Anatomy & Physiology scores is with PAS 1803 (0.430), Semester 2 GPA (0.400), PAS 1823 (0.344), PAS 1813 (0.312), and Semester 3 GPA (0.305). PAS 1800C, PAS 2936, PAS 1831, HAS 2532, Semester 1 GPA, PAS 1801C, PAS 1811C, PAS 1812, PAS 1822L, HSA 3533, PAS 1824, HSC 3202, PAS 1820C, PAS 3038C, and PAS 3075 are not associated with PA-CAT Anatomy & Physiology scores at the 5% significance level.

Scatter plots for all performance variables with PA-CAT Anatomy & Physiology scores are included in Appendix B.

Table 5: Pearson correlation coefficients between performance variables and PA-CAT Anatomy & Physiology scores

	PA-CAT Anatomy & Physiology	PAS 1800C	PAS 2936	PAS 1803	PAS 1831	HAS 2532	Semester 1 GPA	PAS 1801C	PAS 1811C
PA-CAT Anatomy & Physiology	1								
PAS 1800C	-0.151	1							
PAS 2936	0.009	0.279	1						
PAS 1803	.430**	.406**	.336*	1					
PAS 1831	0.183	.528**	0.241	.652**	1				
HAS 2532	-0.024	.582**	.365**	.328*	.482**	1			
Semester 1 GPA	0.277	.578**	.350*	.804**	.766**	.499**	1		
PAS 1801C	0.274	.478**	.339*	.543**	.511**	.290*	.583**	1	
PAS 1811C	0.234	.449**	.429**	.688**	.677**	.423**	.582**	.696**	1
PAS 1812	-0.196	0.094	0.234	-0.004	-0.003	0.006	-0.003	0.104	0.081

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 6: Pearson correlation coefficients between performance variables and PA-CAT Anatomy & Physiology scores

	PA-CAT Anatomy & Physiology	PAS 1813	PAS 1822L	PAS 1823	HSA 3533	Semester 2 GPA	PAS 1824	HSC 3202
PA-CAT Anatomy & Physiology	1							
PAS 1813	.312*	1						
PAS 1822L	0.208	.379**	1					
PAS 1823	.344*	.632**	.633**	1				
HSA 3533	0.046	.401**	.369**	.480**	1			
Semester 2 GPA	.400**	.758**	.402**	.792**	.516**	1		
PAS 1824	0.261	.677**	.472**	.610**	.347*	.655**	1	
HSC 3202	0.004	-0.027	-.426**	-0.271	-.286*	-0.079	-0.062	1
PAS 1820C	0.263	.769**	.512**	.773**	.557**	.820**	.654**	-0.181

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

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Table 7: Pearson correlation coefficients between performance variables and PA-CAT Anatomy & Physiology scores

	PA-CAT Anatomy & Physiology	PAS 3038C	PAS 3075
PA-CAT Anatomy & Physiology	1		
PAS 3038C	0.149	1	
PAS 3075	0.173	.467**	1
Semester 3 GPA	.305*	.628**	.772**

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Correlation between Performance Variables and PA-CAT Biology Scores

Several performance variables are statistically significantly ($p<0.05$) correlated with PA-CAT Biology scores. Correlation between PA-CAT Biology scores and performance variables are presented in tables that follow. Statistically significant results are highlighted in red. The higher a student's PA-CAT Biology score, the higher the expected score on these performance variables.

The highest correlation of PA-CAT Biology scores is with PAS 1803 (0.430), Semester 2 GPA (0.418), PAS 1813 (0.414), PAS 1811C (0.364), and PAS 1820C (0.352). PAS 1800C, PAS 2936, HAS 2532, Semester 1 GPA, PAS 1801C, PAS 1812, PAS 1822L, HSA 3533, HSC 3202, PAS 3038C, and PAS 3075 are not associated with PA-CAT Biology scores at the 5% significance level.

Scatter plots for all performance variables with PA-CAT Biology scores are included in Appendix C.

Table 8: Pearson correlation coefficients between performance variables and PA-CAT Biology scores

	PA-CAT Biology	PAS 1800C	PAS 2936	PAS 1803	PAS 1831	HAS 2532	Semester 1 GPA	PAS 1801C	PAS 1811C
PA-CAT Biology	1								
PAS 1800C	-0.065	1							
PAS 2936	0.273	0.279	1						
PAS 1803	.430**	.406**	.336*	1					
PAS 1831	.288*	.528**	0.241	.652**	1				
HAS 2532	0.156	.582**	.365**	.328*	.482**	1			
Semester 1 GPA	0.276	.578**	.350*	.804**	.766**	.499**	1		
PAS 1801C	0.266	.478**	.339*	.543**	.511**	.290*	.583**	1	
PAS 1811C	.364*	.449**	.429**	.688**	.677**	.423**	.582**	.696**	1
PAS 1812	-0.151	0.094	0.234	-0.004	-0.003	0.006	-0.003	0.104	0.081

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 9: Pearson correlation coefficients between performance variables and PA-CAT Biology scores

	PA-CAT Biology	PAS 1813	PAS 1822L	PAS 1823	HSA 3533	Semester 2 GPA	PAS 1824	HSC 3202
PA-CAT Biology	1							
PAS 1813	.414**	1						
PAS 1822L	0.101	.379**	1					
PAS 1823	.342*	.632**	.633**	1				
HSA 3533	0.195	.401**	.369**	.480**	1			
Semester 2 GPA	.418**	.758**	.402**	.792**	.516**	1		
PAS 1824	.322*	.677**	.472**	.610**	.347*	.655**	1	
HSC 3202	0.118	-0.027	-.426**	-0.271	-.286*	-0.079	-0.062	1
PAS 1820C	.352*	.769**	.512**	.773**	.557**	.820**	.654**	-0.181

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 10: Pearson correlation coefficients between performance variables and PA-CAT Biology scores

	PA-CAT Biology	PAS 3038C	PAS 3075
PA-CAT Biology	1		
PAS 3038C	0.241	1	
PAS 3075	0.165	.467**	1
Semester 3 GPA	.307*	.628**	.772**

**. Correlation is significant at the 0.01 level (2-tailed).

Correlation between Performance Variables and PA-CAT Chemistry Scores

Several performance variables are statistically significantly ($p<0.05$) correlated with PA-CAT Chemistry scores. Correlation between PA-CAT Chemistry scores and performance variables are presented in tables that follow. Statistically significant results are highlighted in red. The higher a student's PA-CAT Chemistry score, the higher the expected score on these performance variables.

The highest correlation of PA-CAT Chemistry scores is with Semester 2 GPA (0.390), PAS 1823 (0.369), and PAS 1803 (0.288). PAS 1813 (0.414), PAS 1811C (0.364), and PAS 1820C (0.352). PAS 1800C, PAS 2936, PAS 1831, HAS 2532, Semester 1 GPA, PAS 1801C, PAS 1811C, PAS 1812, PAS 1813, PAS 1822L, HSA 3533, PAS 1824, HSC 3202, PAS 1820C, PAS 3038C, PAS 3075, and Semester 3 GPA are not associated with PA-CAT Chemistry scores at the 5% significance level.

Scatter plots for all performance variables with PA-CAT Chemistry scores are included in Appendix D.

Table 11: Pearson correlation coefficients between performance variables and PA-CAT Chemistry scores

	PA-CAT Chemistry	PAS 1800C	PAS 2936	PAS 1803	PAS 1831	HAS 2532	Semester 1 GPA	PAS 1801C	PAS 1811C
PA-CAT Chemistry	1								
PAS 1800C	-0.227	1							
PAS 2936	0.083	0.279	1						
PAS 1803	.288*	.406**	.336*	1					
PAS 1831	0.053	.528**	0.241	.652**	1				
HAS 2532	-0.012	.582**	.365**	.328*	.482**	1			
Semester 1 GPA	0.100	.578**	.350*	.804**	.766**	.499**	1		
PAS 1801C	0.160	.478**	.339*	.543**	.511**	.290*	.583**	1	
PAS 1811C	0.217	.449**	.429**	.688**	.677**	.423**	.582**	.696**	1
PAS 1812	-0.074	0.094	0.234	-0.004	-0.003	0.006	-0.003	0.104	0.081

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 12: Pearson correlation coefficients between performance variables and PA-CAT Chemistry scores

	PA-CAT Chemistry	PAS 1813	PAS 1822L	PAS 1823	HSA 3533	Semester 2 GPA	PAS 1824	HSC 3202
PA-CAT Chemistry	1							
PAS 1813	0.250	1						
PAS 1822L	0.193	.379**	1					
PAS 1823	.369**	.632**	.633**	1				
HSA 3533	0.121	.401**	.369**	.480**	1			
Semester 2 GPA	.390**	.758**	.402**	.792**	.516**	1		
PAS 1824	0.168	.677**	.472**	.610**	.347*	.655**	1	
HSC 3202	0.148	-0.027	-.426**	-0.271	-.286*	-0.079	-0.062	1
PAS 1820C	0.276	.769**	.512**	.773**	.557**	.820**	.654**	-0.181

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 13: Pearson correlation coefficients between performance variables and PA-CAT Chemistry scores

	PA-CAT Chemistry	PAS 3038C	PAS 3075
PA-CAT Chemistry	1		
PAS 3038C	0.089	1	

PAS 3075	0.194	.467**	1
Semester 3 GPA	0.230	.628**	.772**
**. Correlation is significant at the 0.01 level (2-tailed).			

Summary

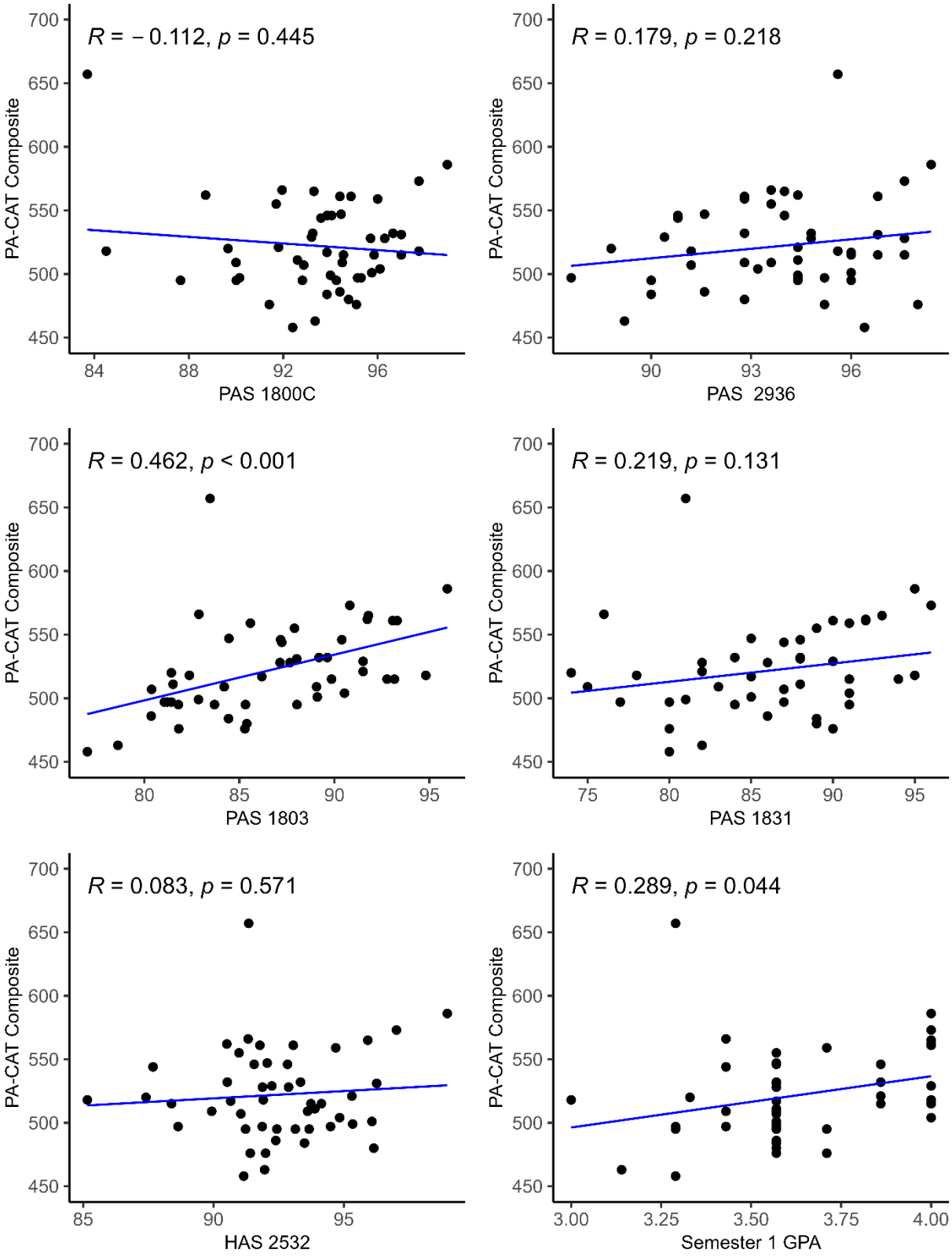
PA-CAT composite and subject scores are meaningful predictors of didactic-year performance in this institution's PA program. All four PA-CAT scores showed significant positive correlations ($p<.05$) with achievement in PAS 1803, PAS 1823, and Semester 2 GPA.

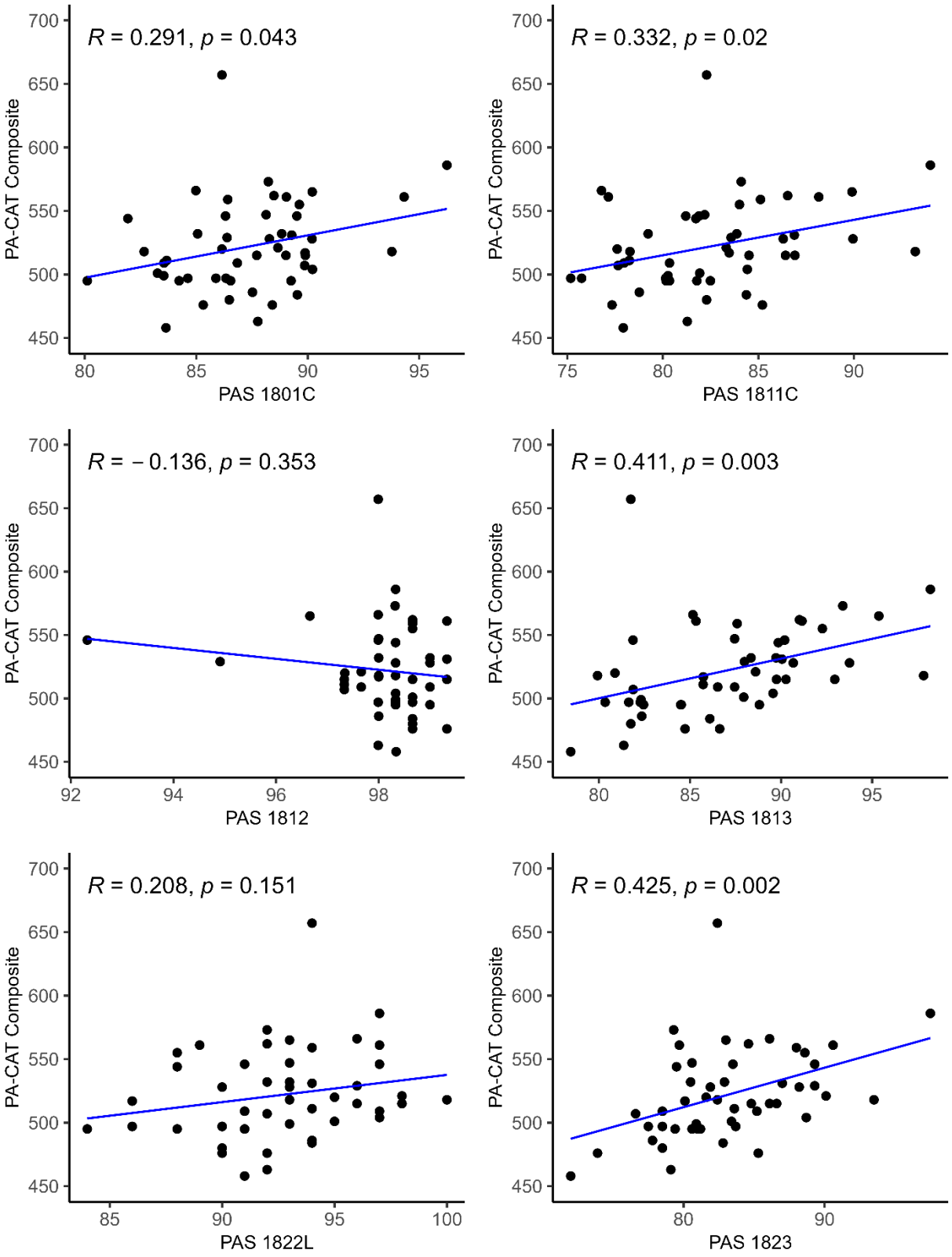
Additionally, PA-CAT composite scores and selected subject scores were statistically significantly ($p<.05$) and positively correlated with PAS 1813, Semester 3 GPA, PAS 1811C, PAS 1824, PAS 1820C, PAS 1831, Semester 1 GPA, and PAS 1801C.

Limitations

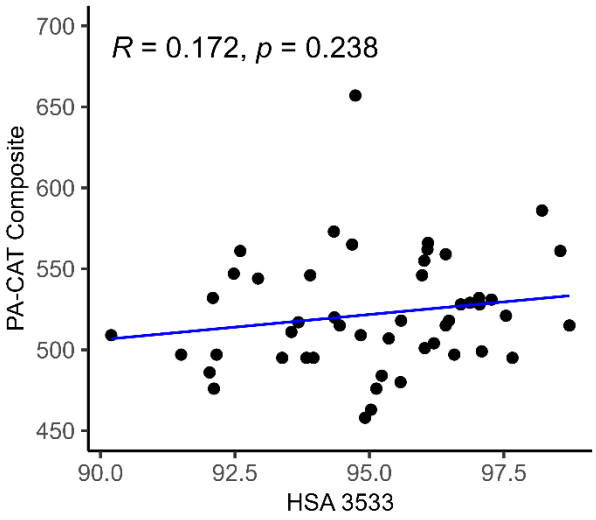
A limitation of this research study is that the findings are based on a small sample (n=49) from a single cohort at one PA program and may not be generalizable to other cohorts at the same institution or to other PA program

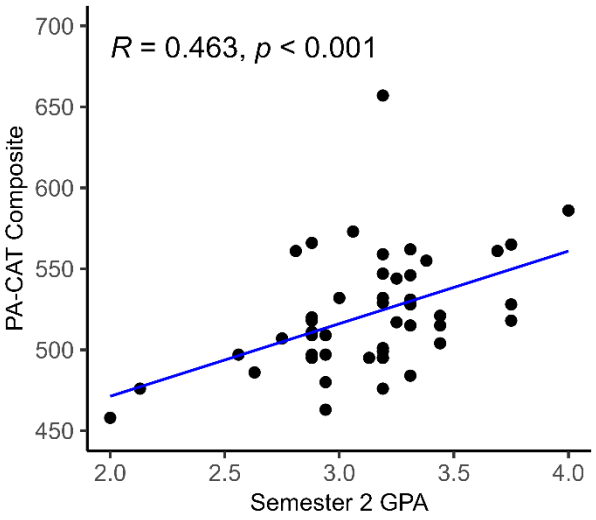
Appendix A: Scatter Plots (PA-CAT Composite)

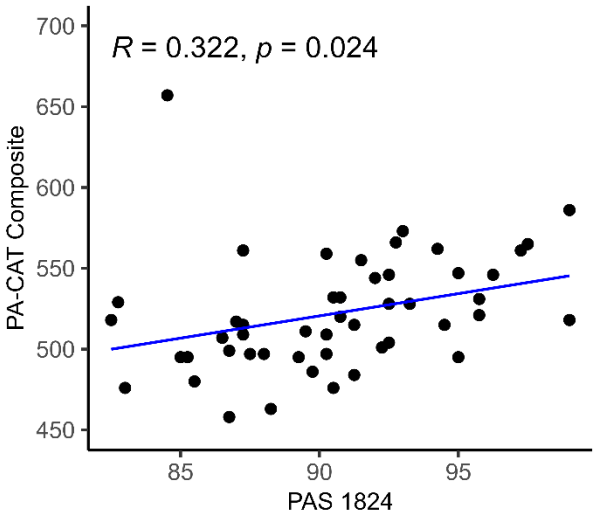


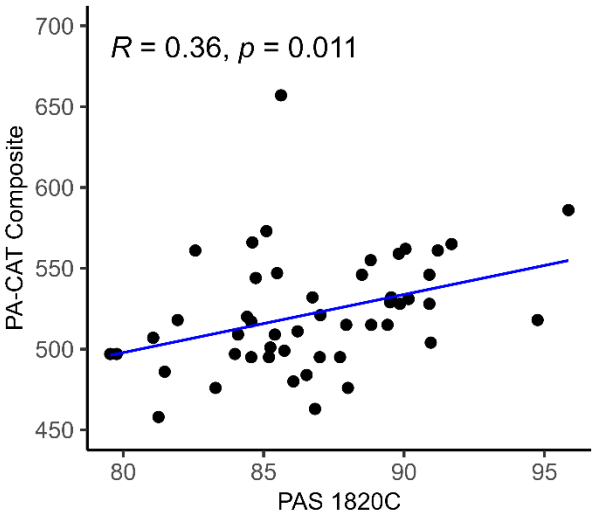


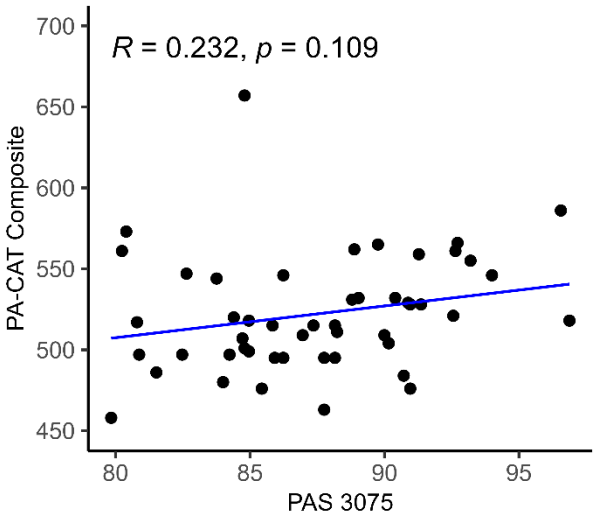
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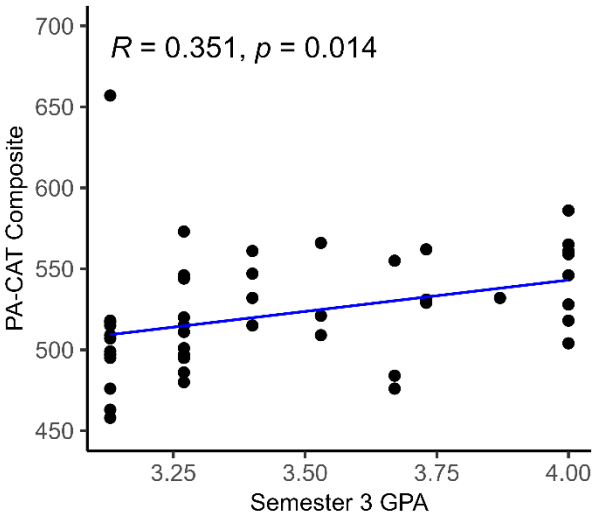






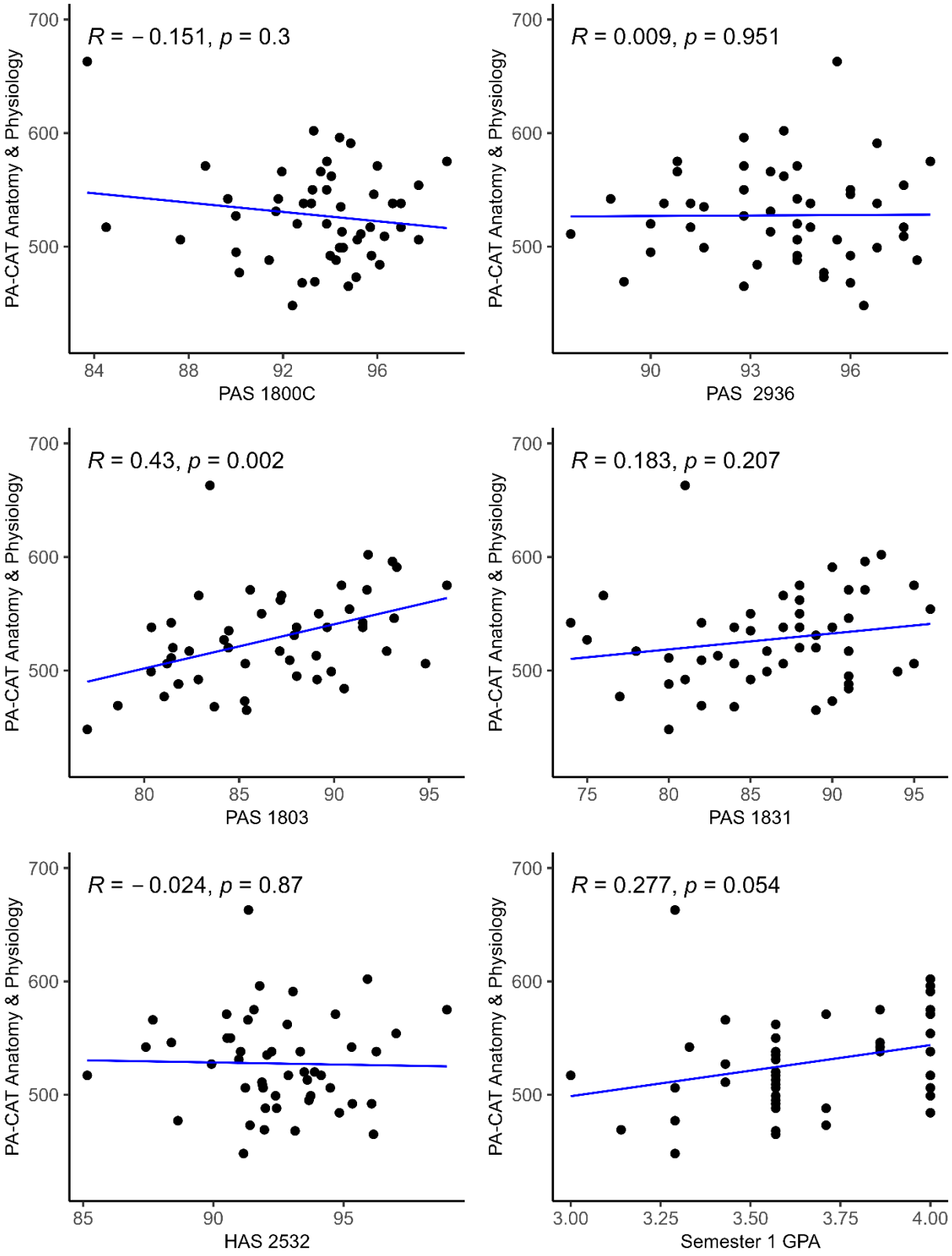




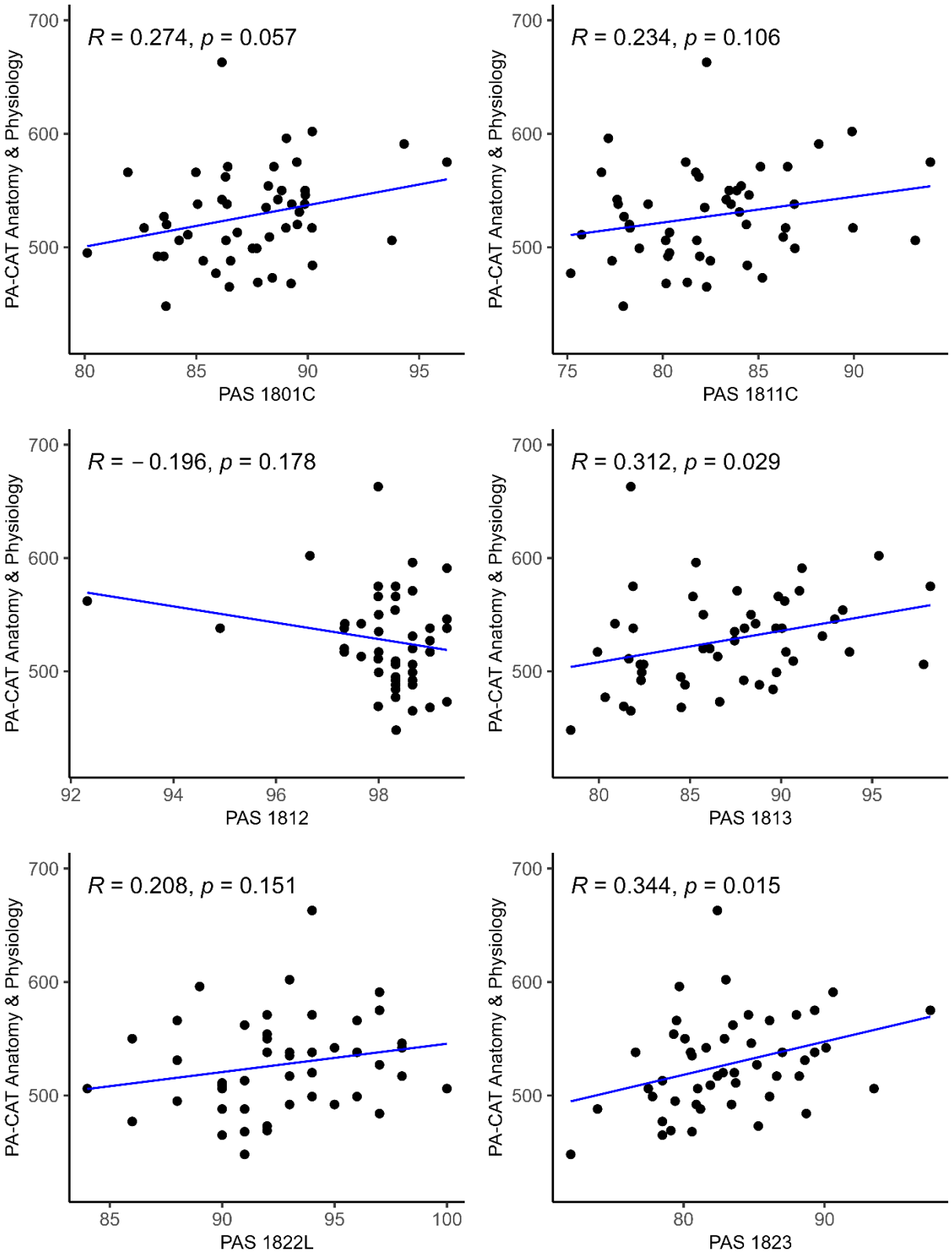


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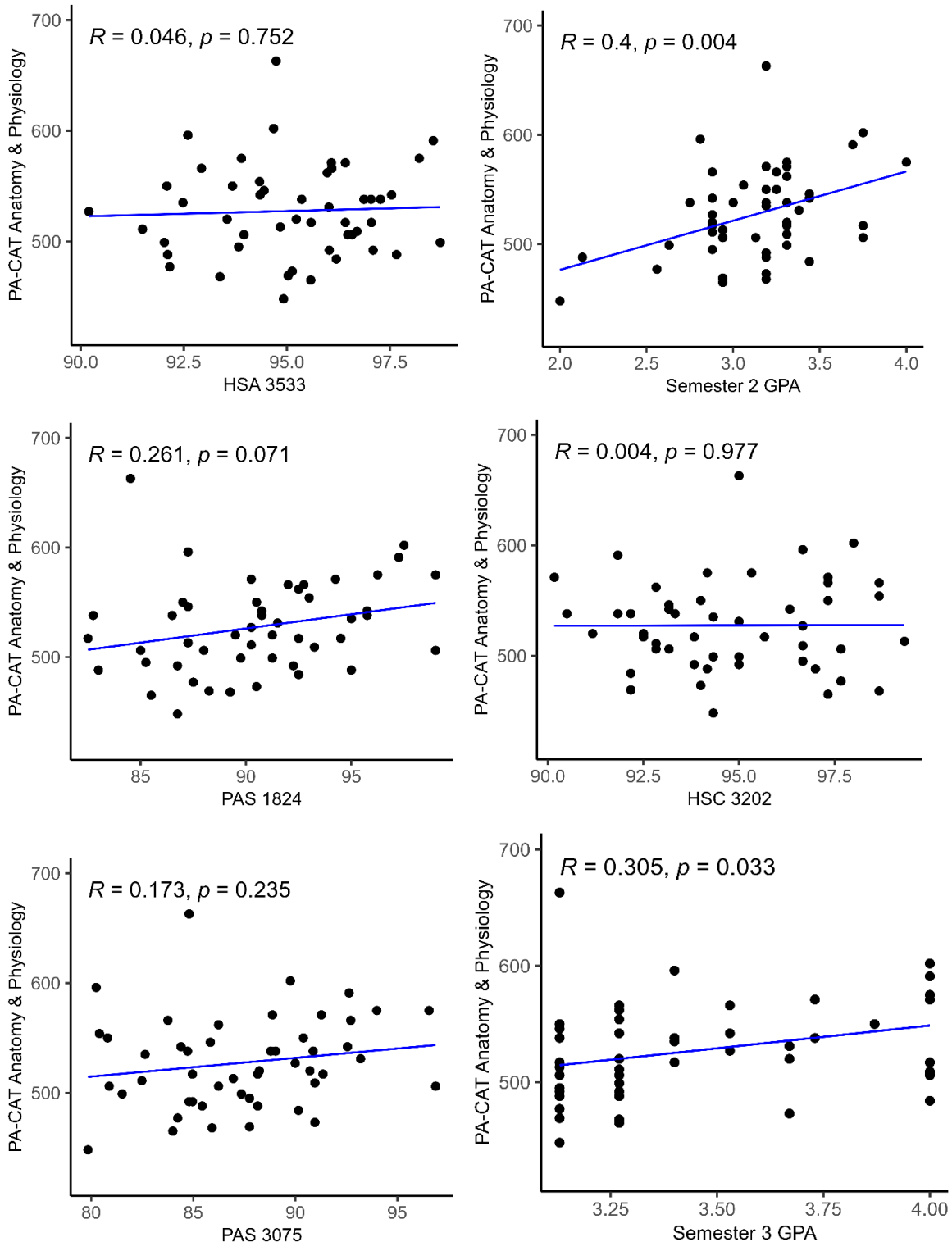
Appendix B: Scatter Plots (PA-CAT Anatomy & Physiology)



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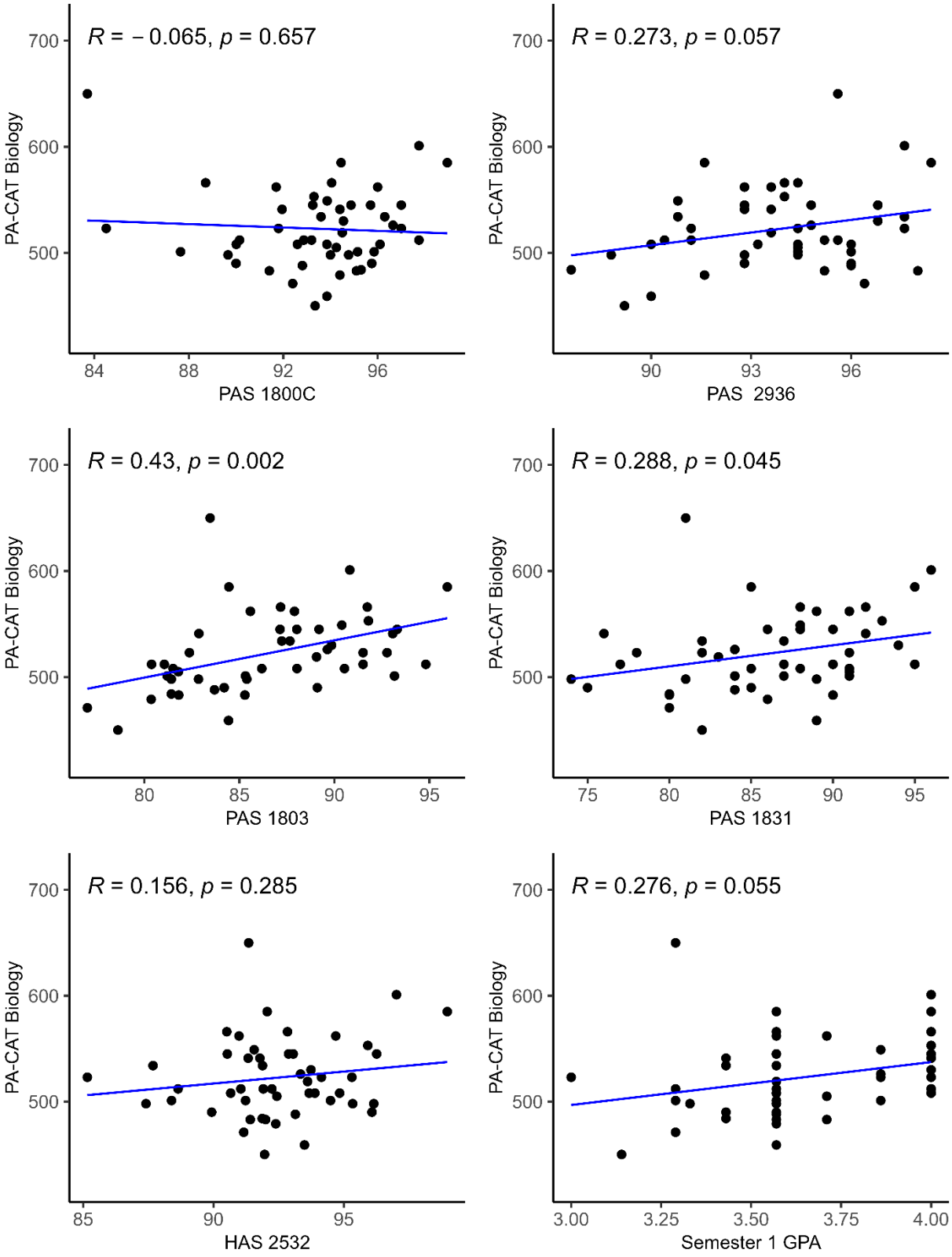


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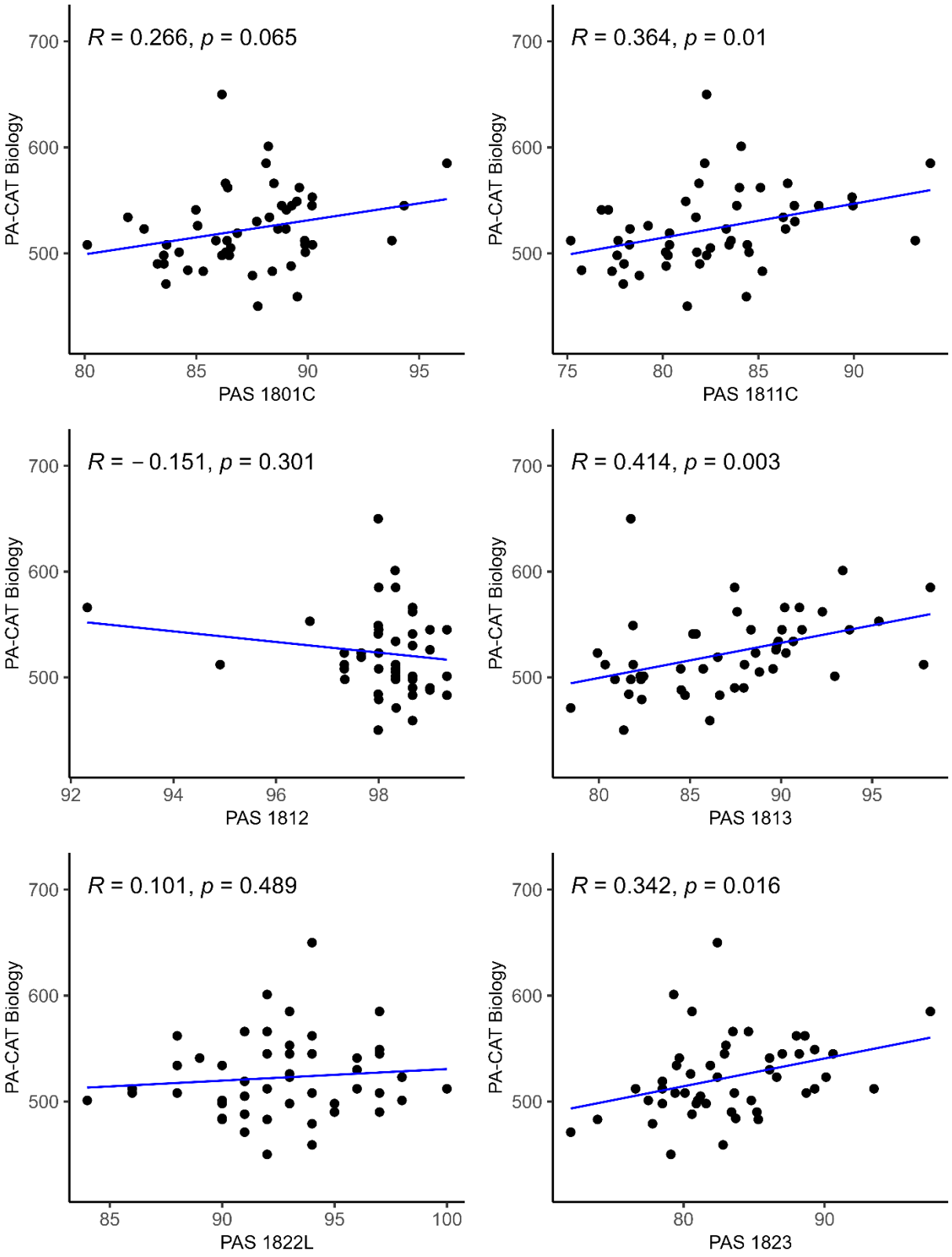


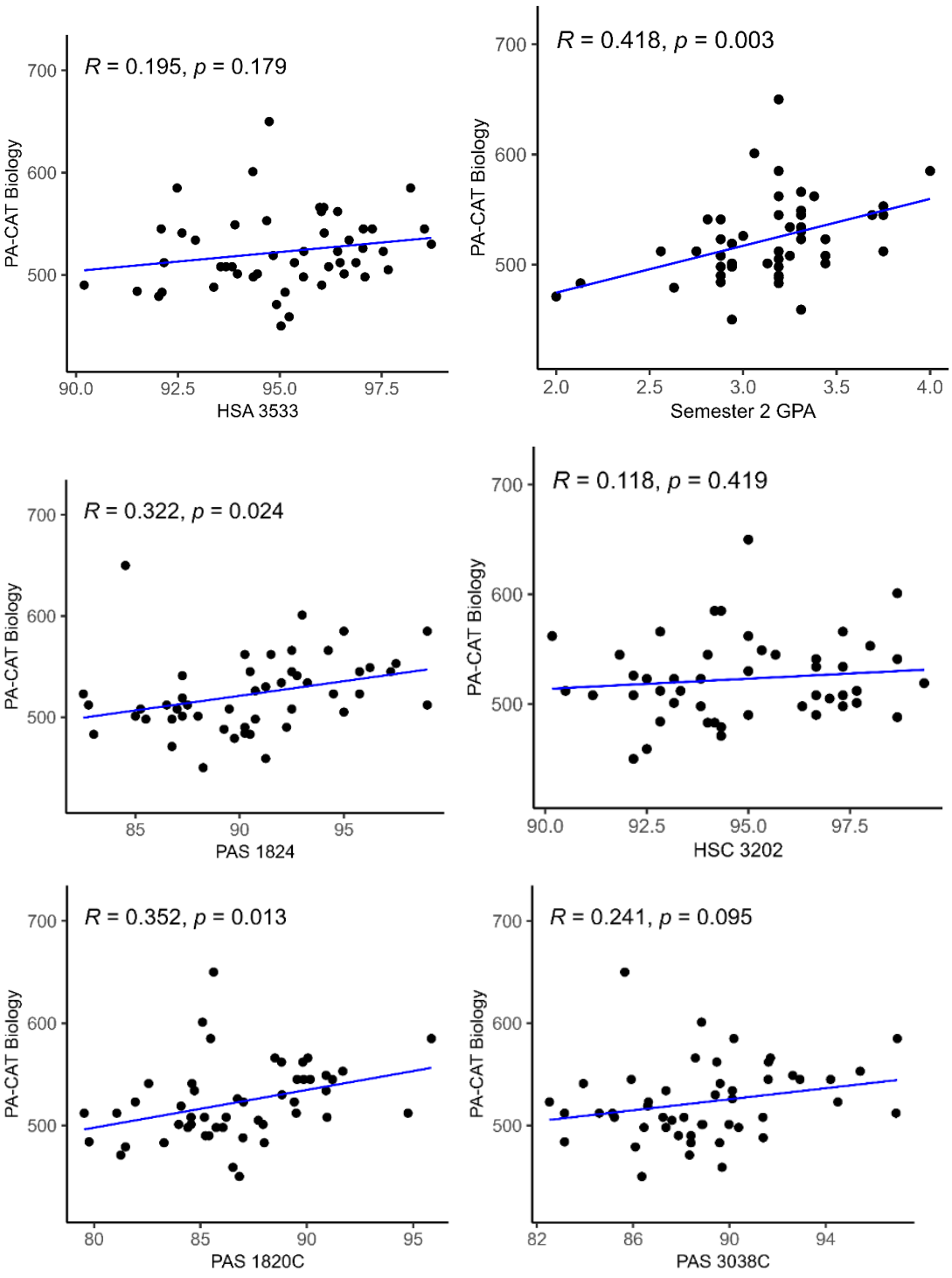
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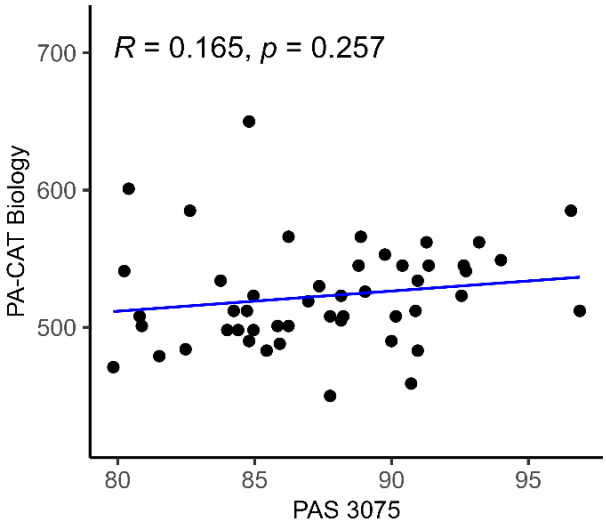
Appendix C: Scatter Plots (PA-CAT Biology)

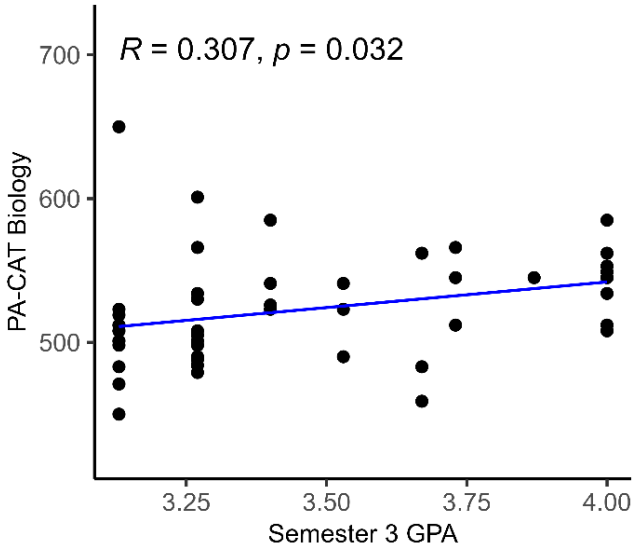


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R = 0.266, p = 0.065
PA-CAT Biology
PAS 1801C
R = 0.364, p = 0.01
PAS 1811C
R = − 0.151, p = 0.301
PAS 1812
R = 0.414, p = 0.003
PAS 1813
R = 0.101, p = 0.489
PAS 1822L
R = 0.342, p = 0.016
PAS 1823

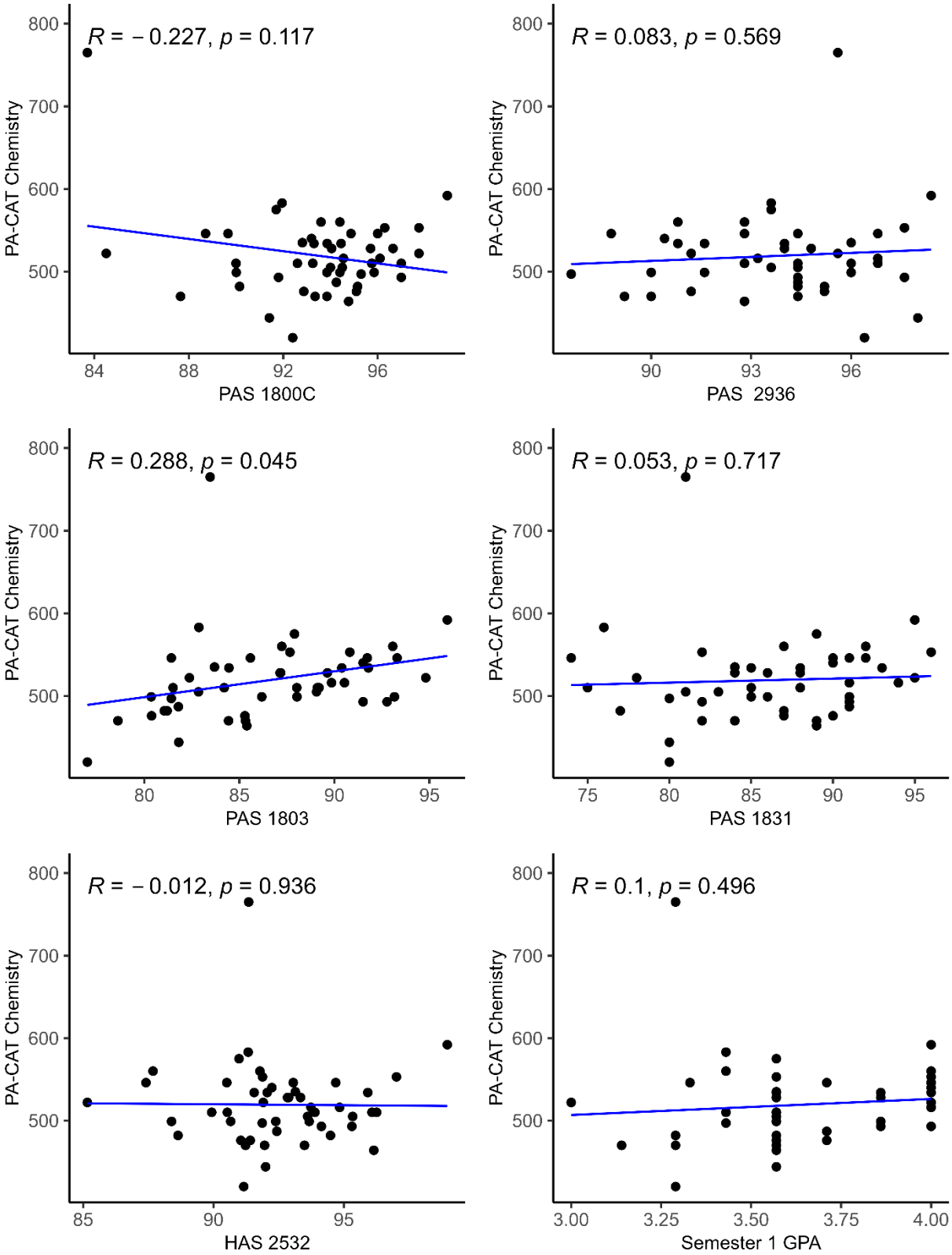

R = 0.195, p = 0.179
PA-CAT Biology
HSA 3533
R = 0.418, p = 0.003
Semester 2 GPA
R = 0.322, p = 0.024
PAS 1824
R = 0.118, p = 0.419
HSC 3202
R = 0.352, p = 0.013
PAS 1820C
R = 0.241, p = 0.095
PAS 3038C

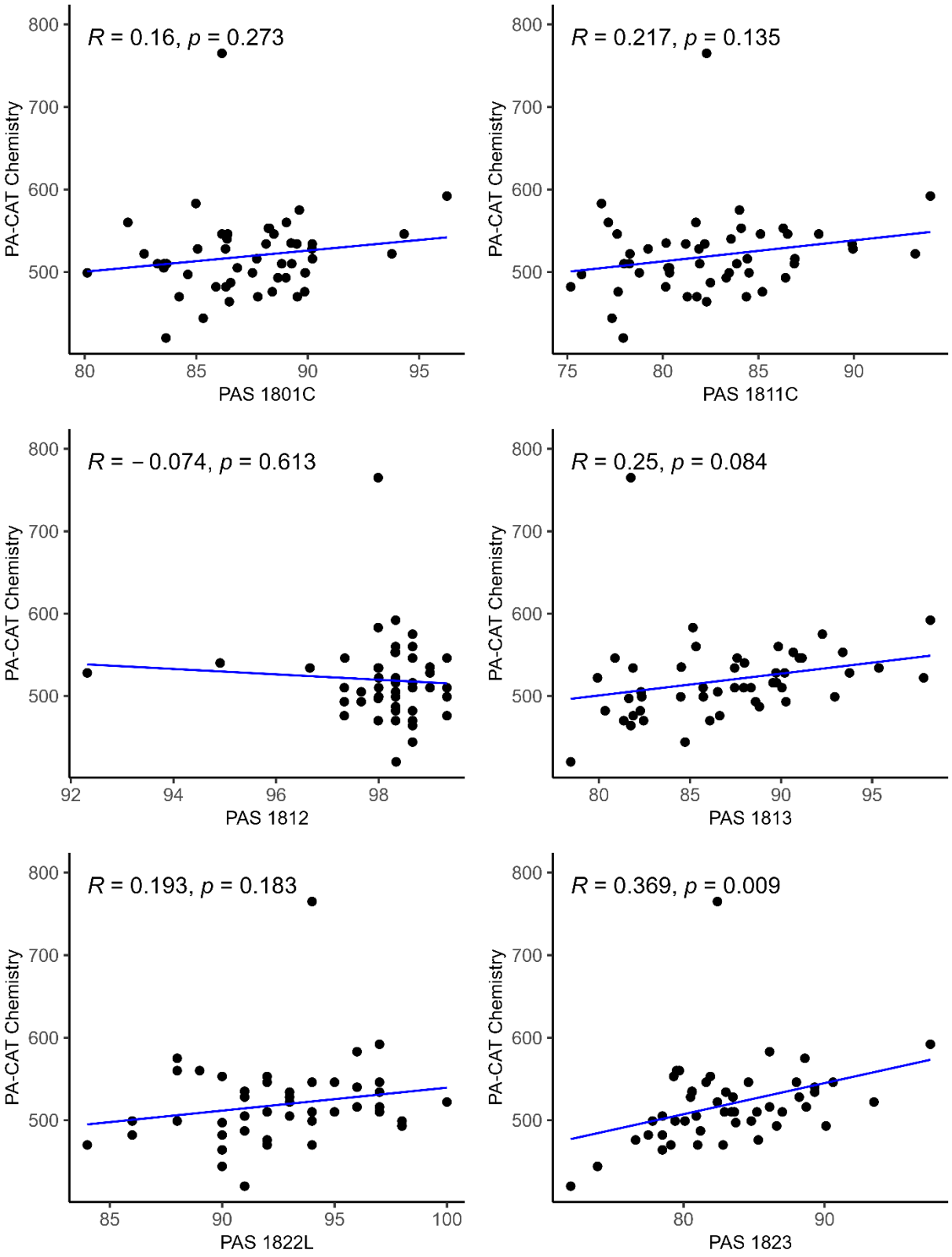


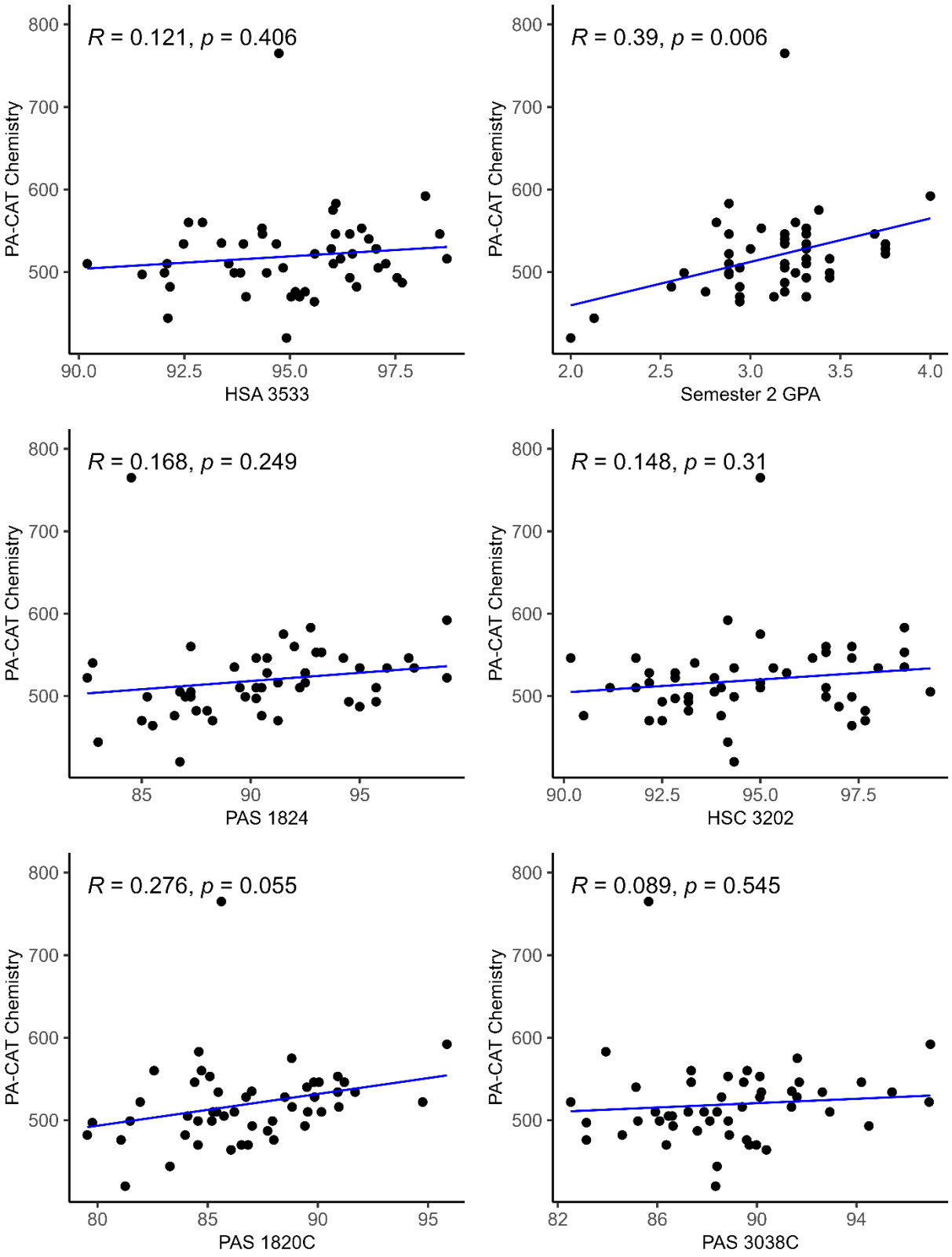


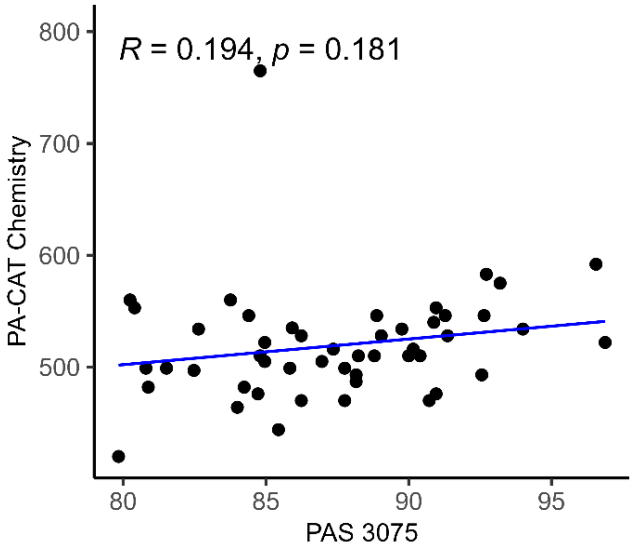
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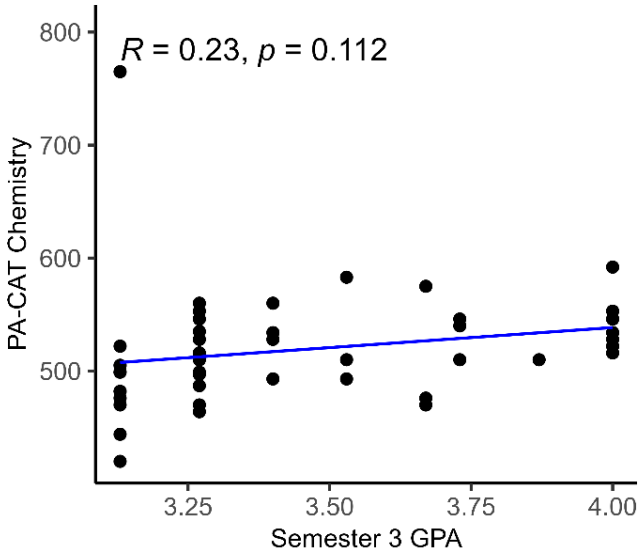
Appendix D: Scatter Plots (PA-CAT Chemistry)




R = 0.16, p = 0.273
PA-CAT Chemistry
PAS 1801C
R = 0.217, p = 0.135
PAS 1811C
R = – 0.074, p = 0.613
PAS 1812
R = 0.25, p = 0.084
PAS 1813
R = 0.193, p = 0.183
PAS 1822L
R = 0.369, p = 0.009
PAS 1823


R = 0.121, p = 0.406
PA-CAT Chemistry
HSA 3533
R = 0.39, p = 0.006
Semester 2 GPA
R = 0.168, p = 0.249
PAS 1824
R = 0.148, p = 0.31
HSC 3202
R = 0.276, p = 0.055
PAS 1820C
R = 0.089, p = 0.545
PAS 3038C


R = 0.194, p = 0.181
PA-CAT Chemistry
800
700
600
500
80
85
90
95
PAS 3075


R = 0.23, p = 0.112
PA-CAT Chemistry
800
700
600
500
3.25
3.50
3.75
4.00
Semester 3 GPA