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**AP<sup>®</sup> STUDENTS IN COLLEGE:  
AN INVESTIGATION OF THEIR COURSE-TAKING PATTERNS AND COLLEGE  
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Through the Advanced Placement Program<sup>®</sup> (AP), secondary school students have the opportunity to pursue and receive credit for college-level course work. AP is based on the premise that college-level material can be taught successfully to able and well-prepared secondary school students. One measure of AP effectiveness is the performance of AP students, relative to other students, in college coursework. Casserly (1986), Morgan and Crone (1993), and Morgan and Ramist (1998) all found that AP students who received credit for prerequisite college courses and placement into a subsequent course performed as well or better in subsequent courses as those students who took the prerequisite course in college.

An additional measure of the effectiveness of AP is the degree to which interest in the subject area is increased by AP participation. Participation in AP may result in a greater propensity to continue in the area of study related to the AP courses taken in secondary school. Willingham and Morris followed 1,000 AP students in nine colleges (1986) and Morgan and Crone (1993) examined freshmen in the University of California system that took one of three AP Exams. Both studies found evidence that AP students tended to enroll in greater numbers of courses in the areas in which they took AP coursework than did students who did not take the AP Exam.

The present investigation updates and expands the study of the number of courses taken by AP candidates in the discipline of the AP Exam. The investigation also examines the eventual college major of the AP candidates, the overall grade-point average, and the time to graduation of students who took AP Exams and began college in 1991. The paper builds on the data from the 21 colleges in Morgan and Ramist (1998).

## METHOD

Two data collections supplied information for this study. The first, as outlined in Morgan and Ramist (1998), was completed in 1994. Sixteen of the 21 colleges listed below supplied first-year through third-year course information for students who enrolled in college in the fall of 1991. The five colleges with a (2) following the institution name provided course information for the first two years. All the data were merged with AP data so comparisons could be made of the courses taken by students who took AP Exams with those who did not take AP Exams. The second data collection effort was completed in 1997. The colleges that participated in the initial collection of course-level data were sent files providing the social security numbers of their students with AP grades. Eleven of the colleges sent back the student's college major, minor (if any), graduation date (if any), and last available grade point average. Asterisks next to the colleges listed below signify those colleges that provided data in 1997.

Boston College  
Brigham Young University\*  
Carnegie Mellon University (2)\*  
Clemson University  
College of William and Mary  
Cornell College (IA) (2)\*  
Cornell University  
Duke University (2)\*

Michigan State University (2)\*  
Pennsylvania State University\*  
Stanford University  
Tulane University\*  
University of California-Davis\*  
University of California-Irvine  
University of Georgia  
University of Illinois (2)  
University of North Carolina-Chapel Hill  
University of Texas-Austin\*  
University of Utah\*  
University of Virginia\*  
Yale University

For each student, the number of courses in the subject area of the AP Exam taken was determined. In a statistical procedure similar to that outlined in Morgan and Ramist (1998), course-taking information was aggregated across colleges, so that the patterns of the data present in the individual colleges were preserved in the aggregated data. The method to estimate the number of courses taken by the 10,174 AP Calculus AB students will be described.

First, for each of the 21 colleges, the average number of mathematics courses taken by the students who did not take the AP Calculus was computed. Then, separately for each AP student, the difference between their number of mathematics courses and the average number of mathematics courses taken by the non-AP group at their college was determined. For each AP grade the differences were averaged. The difference procedure results in each AP student contributing equally to the estimate of the difference between AP students and the other students. The averaged differences, one for each AP grade, were then added to an overall estimate of the average number of mathematics courses for those who did not take the AP Exam. This overall estimate was obtained by weighting each of the college averages by their number of AP Calculus AB students. This procedure again results in each AP student contributing equally to the estimate for the AP students.

The estimation procedure yields estimates consistent with the patterns in the data for each college. Nevertheless, the technique provides estimates for percentages that may appear inconsistent with the number of students in the sample. Furthermore, because the weighting of the college averages is based on the number of students at the college who took the specific AP Exam, the estimates of the non-AP groups for two AP Exams in the same discipline (i.e. physics) may vary.

The second data collection was conducted five years after the students entered college. The data were aggregated across the colleges. For the group of students taking each AP Exam, the following was found:

1. The percentage of students with a major or minor in the discipline of the AP Exam.
2. The percentage of students graduating in at least four years.
3. The percentage of students graduating in five years.
4. The average student GPA.

## RESULTS

Table 1 provides comparative course-taking information aggregated across colleges for AP Calculus AB students. The table displays the number of students, the percent taking any mathematics course, and the average number of mathematics courses taken for both those students who took the AP Calculus AB Exam and those students who did not take the exam. The table indicates that 89% of students with AP grades of 5 took a mathematics course. While the percentages for AP students ranged from 89% to 81%, 78% of the non-AP Calculus students took a mathematics course. All five AP grade groups took more mathematics courses than the non-AP group. Those earning AP grades of 5 averaged 2.7 courses.

The remaining tables are located in Appendix A. The pattern of those with higher AP grades taking more courses is present in most of the tables. Rather than describing each table, a summary is provided in Table 2. The table contains three pieces of information for each AP Exam.

- The number of students in the 21 colleges who took the AP Exam.
- The percentage of students taking a course in the discipline for those that took the AP Exam and those who did not take the exam.
- The average number of courses taken in the discipline by the two aforementioned groups.
- The average number of courses taken in the discipline by students who took at least one course in the discipline.

Table 2 shows that for all but three of the AP Exams (U.S. History and the two English exams) students who took the AP Exam were more likely to take a course in the discipline than students who did not take the AP Exam. For 10 exams (the seven foreign language and literature exams, the two studio art exams, and the music exam) those who took the AP Exam were more than twice as likely to take a course in the academic discipline. With the exception of the AP English Language and Composition Exam, AP students took more courses in the academic discipline than did their classmates. For 16 exams (the 10 previously mentioned exams, the two computer science exams, the two higher-level physics exams, the chemistry exam, and the art history exam) those students who took the AP Exam took more than twice as many courses in the discipline. For all AP Exams, the number of courses taken in the discipline by those who took at least one course was greater for the AP group than for the group that did not take the AP Exam.

Table 3 presents information from the second phase of the study. The table shows the percentage of students that took AP Calculus AB and either majored or took a minor in mathematics or a strongly related discipline. Also shown are percentages of students who graduated in at least four years, in five years, and the average student GPA. The table shows that more than a third of those who received AP grades of 5 on the AP Calculus AB Exam either majored or minored in mathematics or a related academic discipline. The percentage decreases as the AP grade decreases. The average reported college GPA of those with AP Calculus AB grades of 5 was 3.37; higher than any of the other four AP Calculus AB grades. Appendix B provides tables for each AP Exam.

Table 4 contains the following pieces of information for each AP Exam:

- The number of students at the 11 colleges who took the AP Exam
- The percentage of students that graduated in four and five years
- The percentage of students that majored or took a minor in the academic discipline of the AP Exam or a strongly related discipline.
- The college GPA of the students who took the exam.

The table shows that those taking the AP Physics Exams have the highest percentage of those majoring in physics or a related discipline (42% for AP Physics C: Electricity and Magnetism). The lowest percentage is for AP French Literature (8%). However, only 85 students in the sample took AP French Literature. The average GPAs of those taking AP exams was over 3.00 for all AP Exams.

## DISCUSSION

Based on the results of this investigation, several points can be made. First, after taking most AP Examinations, the majority of students continued in their pursuit of knowledge in the subject area of the examinations. After taking AP Exams, students are more likely than those who did not take the AP Exam to take a college course in the area of the academic discipline of the AP Exam and also generally take more courses in the subject area of the exam. Second, after taking an AP Exam, many students complete their college degree in the subject area of their AP Exam. Those taking AP Biology, Physics, Calculus, Studio Art, and Spanish Literature were most likely to major or minor in those disciplines or a closely related discipline. Thirdly, the majority of students who took AP Exams graduated in at least four years and the majority of students had a GPA above 3.00.

## REFERENCES

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**Table 1**

Mathematics Courses Taken by Students with AP Calculus AB Grades

Calculus AB

	5	4	AP Grade 3	2	1	No AP Calculus AB
Number of Students	2036	2343	3049	1520	1226	
Percent taking course in the discipline	89	81	82	89	84	78
Average number of courses taken within discipline	2.7	2.3	2.2	2.5	2.1	1.9

**Table 2**

Summary of Course-Taking Patterns

		Percent Taking Course in Discipline		Average Number of Courses Taken in Discipline		Average Number of Courses Taken by Students Who Took at Least One Course	
Exam	Number Taking AP Exam	AP	Not AP	AP	Not AP	AP	Not AP
U. S. History	10223	49	52	1.2	1.1	2.4	2.1
Art History	431	45	23	1.5	0.5	3.3	2.2
Studio Art – Drawing	87	67	16	4.3	0.4	6.4	2.5
Studio Art – General	199	75	16	4.8	0.4	6.4	2.5
Biology	4369	70	56	3.3	1.9	4.7	3.4
Chemistry	3151	68	46	3.2	1.5	4.7	3.3
Computer Science A	1266	60	32	2.5	0.6	4.2	1.9
Computer Science AB	891	63	32	2.6	0.6	4.1	1.9
Microeconomics	615	56	44	1.7	1.1	3.0	2.5
Macroeconomics	791	55	43	1.7	1.1	3.1	2.6
English Language	2902	69	76	1.6	1.7	2.3	2.2
English Literature	13772	69	72	1.9	1.7	2.8	2.4
European History	2357	57	54	1.6	1.2	2.8	2.2
French Language	1405	57	17	1.7	0.4	3.0	2.4
French Literature	253	55	24	1.5	0.5	2.7	2.1
German Language	322	65	8	2.3	0.2	3.5	2.5
U.S. Govt. & Politics	2960	36	32	1.0	0.7	2.8	2.2
Comp. Govt. & Politics	818	37	31	1.1	0.7	3.0	2.3
Latin – Vergil	233	26	4	0.7	0.1	2.7	2.5
Latin Literature	115	27	4	0.8	0.1	3.0	2.5
Calculus AB	10174	84	78	2.4	1.9	2.9	2.4
Calculus BC	3032	84	77	2.4	1.8	2.9	2.3
Music Theory	134	78	28	6.3	0.7	8.1	2.5
Physics B	1352	68	47	1.9	1.0	2.8	2.1
Physics C (Mechanics)	1241	78	47	3.1	1.2	4.0	2.6
Physics C (E&M)	774	81	47	4.1	1.4	5.1	3.0
Spanish Language	2229	51	23	1.5	0.6	2.9	2.6
Spanish Literature	305	63	27	1.9	0.6	3.0	2.2

**Table 3**

**Calculus AB**

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	898	1069	1351	650	503	4471
Percent taking major/minor in discipline	37	26	19	17	12	23
Percent graduating in 4 years or less	57	51	48	46	40	49
Percent graduating in 5 years or more	23	25	27	27	25	26
Average GPA	3.37	3.21	3.15	3.03	2.80	3.15

**Table 4**

## Summary of Major/Minor and Graduation Information

Exam	Number Taking AP Exam	Percent Taking Major/Minor in Discipline	Percentage Graduating		Average GPA
			in 4 years or less	in 5 years or more	
U.S. History	4506	9	54	22	3.16
Art History	192	12	58	19	3.23
Studio Art — Drawing	49	29	47	22	3.10
Studio Art — General	106	22	45	35	3.22
Biology	1867	28	56	20	3.15
Chemistry	1239	16	56	20	3.16
Computer Science A	616	23	50	22	3.03
Computer Science AB	439	26	47	23	3.00
Microeconomics	233	10	54	21	3.05
Macroeconomics	361	9	54	22	3.01
English Language & Composition	1361	10	49	25	3.11
English Literature & Composition	6145	11	52	24	3.18
European History	911	12	61	18	3.22
French Language	530	10	65	17	3.22
French Literature	85	8	74	14	3.25
German Language	131	15	59	21	3.20
United States Government & Politics	1471	12	57	21	3.13
Comparative Government & Politics	404	14	63	19	3.19
Latin — Vergil	103	9	80	9	3.20
Latin Literature	60	10	82	10	3.18
Calculus AB	4471	23	49	26	3.15
Calculus BC	1152	33	65	17	3.27
Music Theory	70	16	44	27	3.33
Physics B	532	40	52	23	3.12
Physics C — Mechanics	498	39	56	19	3.13
Physics C — Electricity & Magnetism	300	42	58	20	3.23
Spanish Language	956	16	55	25	3.17
Spanish Literature	126	25	65	21	3.17

## **APPENDIX A**

Comparative College Course-Taking Information for Each AP Exam

### U. S. History

	AP Grade					No AP U.S.History
	5	4	3	2	1	
Number of Students	1393	2784	2759	2826	461	
Percent taking course in the discipline	55	46	46	54	47	52
Average number of courses taken within discipline	1.5	1.2	1.1	1.1	0.9	1.1

### Art History

	5	4	AP Grade 3	2	1	No AP Art History
Number of Students	117	111	147	45	11	
Percent taking course in the discipline	43	46	44	52	29	23
Average number of courses taken within discipline	1.9	1.3	1.5	1.6	0.5	0.5

### Studio Art – Drawing

	AP Grade					No AP Studio Art – Drawing
	5	4	3	2	1	
Number of Students	20	28	29	8	2	
Percent taking course in the discipline	78	73	58			16
Average number of courses taken within discipline	4.8	4.8	4.6			0.4

### Studio Art – General

	5	4	AP Grade 3	2	1	No AP Studio Art – General
Number of Students	54	38	74	25	8	
Percent taking course in the discipline	81	77	73	72		16
Average number of courses taken within discipline	6.5	5.1	4.0	3.8		0.4

### Biology

	5	4	AP Grade 3	2	1	No AP Biology
Number of Students	1108	1169	1095	715	282	
Percent taking course in the discipline	72	68	68	74	72	56
Average number of courses taken within discipline	3.7	3.3	3.2	3.1	2.6	1.9

### Chemistry

	5	4	AP Grade 3	2	1	No AP Chemistry
Number of Students	607	818	878	550	298	
Percent taking course in the discipline	63	63	71	74	68	46
Average number of courses taken within discipline	3.7	3.2	3.3	3.0	2.4	1.5

### Computer Science A

	AP Grade					No AP Computer Science A
	5	4	3	2	1	
Number of Students	356	261	272	176	201	
Percent taking course in the discipline	66	63	62	56	48	32
Average number of courses taken within discipline	3.5	2.6	2.2	1.7	1.4	0.6

### Computer Science AB

	AP Grade					No AP Computer Science AB
	5	4	3	2	1	
Number of Students	190	117	266	178	140	
Percent taking course in the discipline	66	61	68	58	60	32
Average number of courses taken within discipline	3.7	2.9	2.5	2.3	1.7	0.6

### Microeconomics

	5	4	AP Grade 3	2	1	No AP Microeconomics
Number of Students	134	151	173	91	66	
Percent taking course in the discipline	55	53	54	66	55	44
Average number of courses taken within discipline	1.9	1.6	1.4	2.1	1.4	1.1

### Macroeconomics

	5	4	AP Grade 3	2	1	No AP Macroeconomics
Number of Students	162	249	209	108	63	
Percent taking course in the discipline	63	52	55	54	53	43
Average number of courses taken within discipline	2.1	1.5	1.7	1.6	1.3	1.1

### English Language

	AP Grade					No AP English Language
	5	4	3	2	1	
Number of Students	385	688	1015	751	63	
Percent taking course in the discipline	71	62	67	78	71	76
Average number of courses taken within discipline	2.1	1.5	1.5	1.7	1.5	1.7

### English Literature

	AP Grade					No AP English Literature
	5	4	3	2	1	
Number of Students	2577	2878	5527	2639	151	
Percent taking course in the discipline	69	65	68	74	73	72
Average number of courses taken within discipline	2.3	1.8	1.7	1.8	1.6	1.7

### European History

	AP Grade					No AP European History
	5	4	3	2	1	
Number of Students	436	681	849	284	107	
Percent taking course in the discipline	65	56	54	55	56	54
Average number of courses taken within discipline	2.1	1.7	1.3	1.4	1.5	1.2

### French Language

	AP Grade					No AP French Language
	5	4	3	2	1	
Number of Students	184	254	478	331	158	
Percent taking course in the discipline	66	55	53	57	62	17
Average number of courses taken within discipline	2.1	1.6	1.6	1.6	1.6	0.4

### French Literature

	AP Grade					No AP French Literature
	5	4	3	2	1	
Number of Students	64	70	60	38	21	
Percent taking course in the discipline	55	53	55	58	58	24
Average number of courses taken within discipline	1.4	1.7	1.5	1.8	1.0	0.5

### German Language

	5	4	AP Grade 3	2	1	No AP German
Number of Students	64	59	135	58	6	
Percent taking course in the discipline	73	74	59	65		8
Average number of courses taken within discipline	2.9	2.8	1.9	2.1		0.2

### U. S. Government and Politics

	AP Grade					No AP U.S. Government and Politics
	5	4	3	2	1	
Number of Students	480	788	1071	512	109	
Percent taking course in the discipline	45	39	34	37	31	32
Average number of courses taken within discipline	1.4	1.1	1.0	0.8	0.7	0.7

### Comparative Government and Politics

	AP Grade					No AP Comparative Government and Politics
	5	4	3	2	1	
Number of Students	117	191	254	192	64	
Percent taking course in the discipline	47	37	36	31	42	31
Average number of courses taken within discipline	1.3	1.3	1.0	0.8	1.0	0.7

### Latin – Vergil

	AP Grade					No AP Latin – Vergil
	5	4	3	2	1	
Number of Students	53	42	71	46	21	
Percent taking course in the discipline	34	32	29	18	6	4
Average number of courses taken within discipline	1.0	0.8	0.7	0.3	0.2	0.1

### Latin Literature

	AP Grade					No AP Latin Literature
	5	4	3	2	1	
Number of Students	25	20	40	18	12	
Percent taking course in the discipline	51	15	30			4
Average number of courses taken within discipline	1.5	0.6	0.7			0.1

### Calculus AB

	5	4	AP Grade 3	2	1	No AP Calculus AB
Number of Students	2036	2343	3049	1520	1226	
Percent taking course in the discipline	89	81	82	89	84	78
Average number of courses taken within discipline	2.7	2.3	2.2	2.5	2.1	1.9

### Calculus BC

	5	4	AP Grade 3	2	1	No AP Calculus BC
Number of Students	1113	662	813	198	246	
Percent taking course in the discipline	88	79	81	85	89	77
Average number of courses taken within discipline	2.8	2.2	2.2	2.3	2.4	1.8

### Music Theory

	5	4	AP Grade 3	2	1	No AP Music Theory
Number of Students	35	39	51	5	4	
Percent taking course in the discipline	88	84	72			28
Average number of courses taken within discipline	6.7	6.5	6.3			0.7

### Physics B

	5	4	AP Grade 3	2	1	No AP Physics B
Number of Students	231	313	416	176	216	
Percent taking course in the discipline	77	69	70	68	56	47
Average number of courses taken within discipline	2.4	2.4	1.8	1.5	1.3	1.0

### Physics C: Mechanics

	AP Grade					No AP Physics C – Mechanics
	5	4	3	2	1	
Number of Students	337	367	315	163	59	
Percent taking course in the discipline	83	77	78	74	66	47
Average number of courses taken within discipline	3.6	3.0	2.8	3.1	1.8	1.2

### Physics C: E & M

	AP Grade					No AP Physics C – E & M
	5	4	3	2	1	
Number of Students	258	192	123	132	69	
Percent taking course in the discipline	85	81	82	78	74	47
Average number of courses taken within discipline	5.2	3.8	3.7	3.3	2.7	1.4

### Spanish Language

	AP Grade					No AP Spanish Language
	5	4	3	2	1	
Number of Students	462	406	808	383	170	
Percent taking course in the discipline	51	55	49	49	59	23
Average number of courses taken within discipline	1.6	1.7	1.5	1.5	1.4	0.6

### Spanish Literature

	AP Grade					No AP Spanish Literature
	5	4	3	2	1	
Number of Students	56	109	102	25	13	
Percent taking course in the discipline	75	64	59	50		27
Average number of courses taken within discipline	2.8	1.8	1.9	1.3		0.6

## APPENDIX B

### Major and Graduation Information for Each AP Exam

## United States History

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	514	1256	1247	1328	161	4506
Percent taking major/minor in discipline	18	12	7	5	4	9
Percent graduating in 4 years or less	64	64	52	45	34	54
Percent graduating in 5 years or more	18	16	22	27	30	22
Average GPA	3.42	3.30	3.16	2.98	2.78	3.16

### Art History

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	52	55	68	15	2	192
Percent taking major/minor in discipline	21	11	7	7	0	12
Percent graduating in 4 years or less	56	53	65	53	50	58
Percent graduating in 5 years or more	21	24	16	7	0	19
Average GPA	3.47	3.20	3.14	3.05	2.50	3.23

### Studio Art — Drawing

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	11	17	18	3	0	49
Percent taking major/minor in discipline	27	29	33	0	N/A	29
Percent graduating in 4 years or less	36	35	67	33	N/A	47
Percent graduating in 5 years or more	18	35	11	33	N/A	22
Average GPA	2.92	3.15	3.19	2.89	N/A	3.10

### Studio Art — General

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	33	20	40	10	3	106
Percent taking major/minor in discipline	36	25	13	10	0	22
Percent graduating in 4 years or less	45	40	45	60	33	45
Percent graduating in 5 years or more	21	40	43	30	67	35
Average GPA	3.38	3.25	3.17	2.80	3.19	3.22

## Biology

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	401	517	500	317	132	1867
Percent taking major/minor in discipline	38	32	27	19	14	28
Percent graduating in 4 years or less	69	58	51	49	39	56
Percent graduating in 5 years or more	16	18	22	21	22	20
Average GPA	3.40	3.28	3.09	2.94	2.66	3.15

## Chemistry

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	195	323	345	234	142	1239
Percent taking major/minor in discipline	25	20	14	11	9	16
Percent graduating in 4 years or less	72	62	54	46	39	56
Percent graduating in 5 years or more	12	17	22	28	21	20
Average GPA	3.49	3.25	3.14	2.99	2.81	3.16

## Computer Science A

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	173	125	146	85	87	616
Percent taking major/minor in discipline	38	23	21	14	8	23
Percent graduating in 4 years or less	58	47	49	53	39	50
Percent graduating in 5 years or more	23	21	24	20	23	22
Average GPA	3.23	3.00	3.00	2.99	2.76	3.03

## Computer Science AB

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	79	64	144	87	65	439
Percent taking major/minor in discipline	39	30	24	23	12	26
Percent graduating in 4 years or less	61	52	48	40	34	47
Percent graduating in 5 years or more	18	31	22	24	25	23
Average GPA	3.19	3.30	2.97	2.89	2.72	3.00

## Microeconomics

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	43	54	67	39	30	233
Percent taking major/minor in discipline	16	17	9	3	0	10
Percent graduating in 4 years or less	67	56	57	44	37	54
Percent graduating in 5 years or more	19	28	16	15	27	21
Average GPA	3.39	3.23	3.07	2.86	2.49	3.05

## Macroeconomics

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	68	117	92	54	30	361
Percent taking major/minor in discipline	10	11	12	2	3	9
Percent graduating in 4 years or less	60	56	54	43	47	54
Percent graduating in 5 years or more	25	21	21	15	33	22
Average GPA	3.39	3.1	3.05	2.51	2.58	3.01

## English Language and Composition

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	160	300	487	382	32	1361
Percent taking major/minor in discipline	25	14	7	4	6	10
Percent graduating in 4 years or less	60	54	52	37	25	49
Percent graduating in 5 years or more	25	21	23	31	38	25
Average GPA	3.39	3.24	3.11	2.94	2.38	3.11

## English Literature and Composition

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	1056	1330	2569	1135	55	6145
Percent taking major/minor in discipline	19	13	8	6	2	11
Percent graduating in 4 years or less	66	58	49	39	24	52
Percent graduating in 5 years or more	17	21	26	30	22	24
Average GPA	3.40	3.31	3.16	2.91	2.61	3.18

## European History

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	157	269	333	108	44	911
Percent taking major/minor in discipline	25	16	7	4	9	12
Percent graduating in 4 years or less	73	64	56	54	48	61
Percent graduating in 5 years or more	13	20	17	26	18	18
Average GPA	3.47	3.36	3.12	2.92	2.87	3.22

## French Language

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	49	102	183	127	69	530
Percent taking major/minor in discipline	29	9	8	11	4	10
Percent graduating in 4 years or less	78	75	70	56	43	65
Percent graduating in 5 years or more	2	11	14	27	26	17
Average GPA	3.36	3.36	3.29	3.05	3.05	3.22

## French Literature

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	10	19	27	22	7	85
Percent taking major/minor in discipline	10	16	7	5	0	8
Percent graduating in 4 years or less	80	89	70	73	43	74
Percent graduating in 5 years or more	10	5	15	14	43	14
Average GPA	3.46	3.37	3.28	2.99	3.32	3.25

## German

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	25	26	54	24	2	131
Percent taking major/minor in discipline	32	12	11	8	0	15
Percent graduating in 4 years or less	64	69	59	42	50	59
Percent graduating in 5 years or more	16	15	30	17	0	21
Average GPA	3.27	3.42	3.23	2.88	2.62	3.20

## United States Government and Politics

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	212	404	548	246	61	1471
Percent taking major/minor in discipline	18	15	11	7	3	12
Percent graduating in 4 years or less	72	62	58	39	38	57
Percent graduating in 5 years or more	16	19	20	29	31	21
Average GPA	3.40	3.25	3.09	2.90	2.66	3.13

### Comparative Government and Politics

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	57	85	136	99	27	404
Percent taking major/minor in discipline	16	20	9	15	11	14
Percent graduating in 4 years or less	70	68	65	56	41	63
Percent graduating in 5 years or more	14	15	14	29	22	19
Average GPA	3.48	3.32	3.11	3.12	2.83	3.19

### Latin: Vergil

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	22	17	37	18	9	103
Percent taking major/minor in discipline	27	0	8	0	0	9
Percent graduating in 4 years or less	91	88	92	56	33	80
Percent graduating in 5 years or more	9	6	3	22	11	9
Average GPA	3.35	3.30	3.29	3.08	2.49	3.20

## Latin Literature

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	8	11	25	10	6	60
Percent taking major/minor in discipline	38	18	0	0	17	10
Percent graduating in 4 years or less	88	82	84	90	50	82
Percent graduating in 5 years or more	0	18	12	0	17	10
Average GPA	3.35	3.13	3.27	3.06	2.86	3.18

## Calculus AB

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	898	1069	1351	650	503	4471
Percent taking major/minor in discipline	37	26	19	17	12	23
Percent graduating in 4 years or less	57	51	48	46	40	49
Percent graduating in 5 years or more	23	25	27	27	25	26
Average GPA	3.37	3.21	3.15	3.03	2.80	3.15

## Calculus BC

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	372	272	309	92	107	1152
Percent taking major/minor in discipline	43	30	27	28	24	33
Percent graduating in 4 years or less	71	64	67	60	50	65
Percent graduating in 5 years or more	14	17	17	24	22	17
Average GPA	3.44	3.33	3.17	3.07	2.96	3.27

## Music Theory

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	11	22	32	3	2	70
Percent taking major/minor in discipline	27	23	9	0	0	16
Percent graduating in 4 years or less	45	36	50	67	0	44
Percent graduating in 5 years or more	9	32	28	33	50	27
Average GPA	3.66	3.57	3.17	2.44	2.91	3.33

## Physics B

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	86	124	162	72	88	532
Percent taking major/minor in discipline	53	48	42	32	18	40
Percent graduating in 4 years or less	57	59	50	47	44	52
Percent graduating in 5 years or more	19	23	23	22	24	23
Average GPA	3.36	3.24	3.07	2.99	2.91	3.12

### Physics C: Mechanics

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	106	144	140	79	29	498
Percent taking major/minor in discipline	58	37	36	30	21	39
Percent graduating in 4 years or less	66	59	53	46	52	56
Percent graduating in 5 years or more	12	18	24	22	10	19
Average GPA	3.43	3.23	3.04	2.87	2.68	3.13

### Physics C: Electricity and Magnetism

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	78	74	49	67	32	300
Percent taking major/minor in discipline	54	50	41	31	16	42
Percent graduating in 4 years or less	71	51	67	42	63	58
Percent graduating in 5 years or more	13	20	22	31	9	20
Average GPA	3.54	3.23	3.09	3.07	3.09	3.23

## Spanish Language

	AP Grade					All AP Grades
	5	4	3	2	1	
Number of Students	176	172	350	162	96	956
Percent taking major/minor in discipline	23	17	15	14	10	16
Percent graduating in 4 years or less	55	66	57	51	38	55
Percent graduating in 5 years or more	23	22	25	23	31	25
Average GPA	3.18	3.32	3.18	3.21	2.79	3.17

## Spanish Literature

<b>AP Grade</b>						
	5	4	3	2	1	All AP Grades
Number of Students	28	40	44	10	4	126
Percent taking major/minor in discipline	46	28	16	0	0	25
Percent graduating in 4 years or less	54	75	64	60	75	65
Percent graduating in 5 years or more	29	23	20	0	25	21
Average GPA	3.44	3.29	2.99	2.72	3.07	3.17