

Plus and Minus Grading Options: Toward Accurate Student Performance Evaluations

*The Academic Senate
for
California Community Colleges*

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The Educational Policies Committee 1995-1996

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Introduction

Because the Regents of the University of California (UC) and the Trustees and administration of the California State University (CSU) respectively delegate to the faculty or rely upon the advice of the faculty regarding educational policies, the academic senates in both university systems establish grading policies. Currently all of the UC and CSU campuses have the option of establishing plus/minus grading and most use it. The Board of Governors for California Community Colleges (Board of Governors) standing orders on consultation states that the Chancellor shall rely primarily on the advice and judgment of the Academic Senate for California Community Colleges on academic and professional matters. Despite that, to date the advice and judgment on the academic issue of a permissive plus/minus grading policy has not resulted in a change in current regulations. For at least a decade the Academic Senate for California Community Colleges has urged the Board of Governors to pass regulations that would permit the use of plus/minus grading at the discretion of the local district. Primarily, for the sake of administrative convenience of reporting and receiving data, the community colleges are precluded from the practice. The fair and accurate evaluation of student performance is a fundamental responsibility of the faculty. In the interest of faculty accountability to the state, districts, colleges, and students for having met that responsibility, the Academic Senate for California Community Colleges urges the Board of Governors to employ the same wisdom as their colleagues in the other segments of higher education and rely upon the advice of the faculty for this academic matter. To that end, and in response to the following resolution, this paper was developed.

20.4 S95

Plus/Minus Grading

Therefore be it resolved that the Academic Senate for California Community Colleges for California Community Colleges reaffirm its support for the permissive use of plus/minus grading, and

Be it further resolved that the Academic Senate for California Community Colleges for California Community Colleges direct the Executive Committee to present a specific proposal for a plus/minus grading system, including Title 5 implications, to a future session.

Current Regulations

Title 5, Section 55758 establishes the academic record symbols and grade point average computation. The table below lists the evaluative symbols, definitions, and grade point values as established in the regulation.

Symbol	Definition	Grade Point
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing, less than satisfactory	1
F	Failing	0
CR	Credit (at least satisfactory-units awarded not counted in GPA*)	
NC	No Credit (less than satisfactory, or failing-units not counted in GPA*)	

*GPA = Grade Point Average

While the regulations also allow non-evaluative symbols including (I) Incomplete, (IP) In Progress, (RD) Report Delayed, and (W) Withdrawal, by establishing the above listed evaluative symbols, the affixation of plus or minus signs to the grades is not permitted.

History

Prior to the 1968 establishment of the Board of Governors, standards for the community colleges (then junior colleges) were established by the California State Board of Education (currently K-12). The regulations were silent on the affixing of plus/minus symbols to grades.¹ To that end, faculty were not precluded from using plus/minus symbols.

With the establishment of the Board of Governors, community college regulations including those that govern grading practices were established. In response to districts' request for flexibility, the regulations were amended to permit a district governing board to develop a grading scale other than the A-F letter grading system.² The regulations were changed to include:

“The governing board of a district maintaining a community college shall determine the grading practice to be used in that community college. The grading practice shall be based on sound academic principles...”³

Following the change to permit local district governing boards to establish the grading system, a wide variation of grading systems were used. In response to a report by the California

¹Klein, Charlie, Educational Standards and Evaluation - Chancellors Office of the California Community Colleges. *Plus Minus Grading*, (May 5, 1989) p 3

²Klein, Charlie, p 3

³California Community Colleges, *Board of Governors Agenda Item*, (April 1971)

Post-secondary Education Commission, *Through the Open Door*, that included criticisms that California community colleges maintained inconsistent and educationally questionable grading practices, and with lobbying from the Academic Senate for California Community Colleges, the Chancellor appointed a Grading Policies Study Group.⁴ For the sake of consistency, uniformity, and administrative convenience, the group recommended that plus/minus grades be precluded.⁵

The Academic Senate for California Community Colleges Resolutions

At the Fall 1985 Plenary Session of the Academic Senate for California Community Colleges, the following resolution was adopted:

Be it resolved that the Academic Senate for California Community Colleges for California Community Colleges recommend that pluses (+) and minuses (-) be included in the standard grading policy for the California community colleges and that the Executive Committee be directed to promote this as a standard higher education grading policy through the intersegmental senate, to insure equitable grading procedures.

Although the Academic Senate for California Community Colleges communicated the resolution to the Board of Governors and the Chancellor's Office, no progress was made on the issue.

At the Fall 1987 Plenary Session of the Academic Senate for California Community Colleges, the following resolution was adopted:

Be it resolved that the Academic Senate for California Community Colleges for California community colleges reaffirm its past support for the position that California community college faculty be authorized to issue grades of plus or minus on a campus by campus basis, thereby better following the University of California grading system.

The passage of this resolution created confusion because the initial resolution promoted a Statewide imposition of plus/minus grading. The latter resolution called for local determination of the use of plus/minus grading. To that end, there was communication between the Academic Senate for California Community Colleges and the Chancellor's Office staff to clarify the issue. The Academic Senate for California Community Colleges indicated in 1988 that the Fall 1987 resolution calling for permissive use of plus/minus grading accurately reflected its position and desire.

The Academic Senate for California Community Colleges proceeded to gather grading

⁴Klein, Charlie, p 4

⁵Klein, Charlie, p 4

policies from the various UC and the CSU campuses. These policies were made available to the Chancellor's Office staff in order to support their work in making a recommendation to the Board of Governors.

Board of Governors Action

In May 1990, the Board of Governors considered a recommendation to amend Title 5, Section 55758 to include:

"(b) The governing board of a community college district may approve the use of "plus" and "minus" designations in combinations with letter grades, and may compute grade point averages taking plus and minus values into account. In said computations, the value of a plus grade shall be computed by adding .3 to the value of the letter grade with which it is combined, and the value of a minus grade shall be computed by subtracting .3 from the value of the letter grade with which it is combined, except that no grade point value shall be less than 0 or greater than 4.0."⁶

This recommendation was the result of consultation and staff research. Based on opposition from the representative of the Council of Student Body Governments, the Board of Governors rejected the recommendation citing concerns about equal access to plus/minus grades, possible loss of financial aid/athletic eligibility, possible problems with transfer, and speculations of grade point average (GPA) decline.

The Academic Senate for California Community Colleges Response

Subsequent to the Board of Governors action, the Academic Senate for California Community Colleges has had numerous meetings with the Council of Student Body Governments. The proposal has been modified and presentations have been made that answer the concerns cited by the Board of Governors based on student testimony. Depending on the year of the council, the students have expressed continued concern or support. In 1993-94 and 1994-95 the Council of Student Body Governments expressed support and indicated that plus/minus grading could be beneficial to students.

At the Fall 1995 Plenary Session of the Academic Senate for California Community Colleges, the following resolution was adopted.

20.4 S95 Plus/Minus Grading

Be it resolved that the Academic Senate for California Community Colleges for California Community Colleges reaffirm its support for the permissive use of plus/minus grading and be it further resolved that the Academic Senate for California Community

⁶California Community Colleges, *Board of Governors Agenda Item 8*, (May 10-11, 1990) Attachment A, p 1

Colleges for California Community Colleges direct the Executive Committee to present a specific proposal for a plus/minus grading system, including Title 5 implications, to a future session.

Plus/Minus Grading Option Proposal

The Academic Senate for California Community Colleges proposes that the Board of Governors adopt changes in the regulations pertaining to student grades of record, and that the changes include the following:

1. Permissive use of plus and minus grading (+ -) whereby local governing boards set policy that establishes: (a) whether plus/minus grading symbols can be used in combination with the letter grades; and (b) whether plus/minus symbols would appear on student transcripts and figure into GPA's. This would create the following options for local districts.
 - A. Plus/minus grades appear on the transcripts and count in the GPA calculation.
 - B. Plus/minus grades appear on the transcripts and do not count in the GPA calculation.
 - C. Plus/minus grades are not used at all.
2. The Following Grading Scale is proposed for plus/minus grading. Due to transfer considerations, a grade of "C-" is not included.

A+	=	4.0	C+	=	2.3
A	=	4.0	C	=	2.0
A-	=	3.7	D+	=	1.3
B+	=	3.3	D	=	1.0
B	=	3.0	D-	=	0.7
B-	=	2.7	F	=	0

3. The plus and minus symbols would be added in the section of Title 5 on grading and grading symbols. All other aspects of the language of the section would be unchanged.

Accuracy

The primary motivation for use of the plus/minus grading option stems from an ethical imperative. Faculty are ethically obliged to ensure evaluations of student performance are consistent, fair, and accurate. This obligation is true whether one's grading philosophy is predicated upon any one, two, and/or all of the three standard approaches to grading: improvement, mastery relative to an absolute skill or knowledge standard, and mastery relative

to others. In essence, the implementation of the plus/minus grading option allows for better and more accurate information to and for students about their performance.

As a directive from AB1725, the Board of Governors was required to implement a comprehensive community college educational and fiscal system of accountability. The developed system of accountability includes qualitative and quantitative academic standards.⁷ This attention to accountability is consistent with rising public and governmental concern about accountability in higher education as public financial support for colleges and universities declines and institutions are asked to meet growing demands with fewer resources.

Additionally, the attention to student performance in both the secondary (K-12) and the post-secondary (13-20+) systems has given rise to discourse and debate about the value of the college and university degree. Therefore, there has been increased attention by the faculty of the community college system to curriculum, pedagogy, and academic standards as evidenced by their work on program review, the establishment of prerequisites, curriculum approval, intersegmental general education transfer, academic disciplines minimum qualifications, and student equity.

The faculty profess that the permissive use of plus/minus grading symbols facilitate their ability to be accountable for their professional obligation to the state, college, and students. Restricted by regulations that do not meet the test of substantial state interest, faculty across the state are precluded from indicating accurate student performance evaluations. According to the Chancellor's Office:

“The test of substantial state interest that ordinarily must be met before the Board enjoins an educational rule on all districts cannot be met in the case of plus/minus grading. That is, the effects, positive or negative, of adding pluses and minuses to the grading scale are either too uncertain or not substantial enough to make a uniform, system wide minimum standard appropriate. Therefore, staff concludes on governance grounds that the current restrictive regulations should be amended to permit the use of plus and minus affixes to letter grades.”⁸

Student Equity in Grading

The current system is too harsh. Students' achievement can differ by nearly 25% and result in the same grade and grade value for GPA purposes. Conversely, students' achievement may not differ by more than 1% yet result in adjacent grades 25% apart in value for GPA purposes. With the plus/minus grading option there is greater potential for the evaluation determined by the instructor to more accurately be reflected in the assigned grade. This statement is exemplified in the situation given below:

⁷California Community Colleges, *Board of Governors Agenda Item 9*, (July 12-13, 1990), p 5

⁸California Community Colleges, *Board of Governors Agenda Item 9*, (July 12-13, 1990), Attachment B, p.3

Given a faculty member's grading system that establishes a 500 point total possible for all work and that, at the end of the term requires that faculty member to translate point totals into letter grades, and given the following example of a grading scale,

450-500 = A
400-449 = B
350-399 = C
300-349 = D

several inequities and several other problems arise from scores routinely achieved and may explain why, even though the regulations preclude the use of pluses and minuses as official evaluative symbols, many faculty assign pluses and minuses to letter grades for work during a term.

Because all students do not score at the mean score of each of the letter grades, (instead students score at the full range of possibilities within a letter grade), the simple assignment of a letter grade precludes the faculty member from accurately indicating the students' appropriate scores. Consider the following:

1. Rita amasses a total of 452 points and receives an A grade and a GPA equal to her grade points equal to 4.0 times the course units.
2. Paul amasses a total of 448 points and receives a B grade and a GPA equal to his grade points equal to 3.0 times the course units.
3. Chuck amasses a total of 404 points and receives a B grade and a GPA equal to his grade points equal to 3.0 times the course units.

The instructive aspects of comparing Rita to Paul and then Paul to Chuck demonstrate two inequities in the 4.0 grading system lacking the plus/minus option.

Rita's 452 point total is less than 1% greater than Paul's 448 points while her grade reward is 25% greater than Paul's grade of a "B." Conversely, Chuck's point total 404 is 11% less than Paul's point total of 448, yet Chuck and Paul's grade of "B" is 0% different.

Additionally the unit total for the course acts as a multiplier of the effect on the total GPA whereby small differences in performance in high unit courses may account for as much or more effect than the difference between excellence and utter disregard in a low unit course. With the permissive use of plus/minus grading, six pairs of adjacent grades are 7.5% apart in value (A/A-, B+/B-, B/B-, C+/C, D+/D, D/D-), two pairs are 10% apart in value (A-/B+, B-/C+), and two pairs are 17.5% apart in value (C /D+, D-/F). With plus/minus grading, Rita and Paul would be no more than 10% apart as opposed to 25% while Paul and Chuck would be 15% apart rather than 0%.

Other concerns regarding equity centered around differences among various colleges. If a

faculty member teaches at College A and College B concurrently, and College A permits the use of plus/minus grading but College B does not, students who perform the same will receive different grades. This concern is not compelling, nor is it created by the permissive use of plus/minus grading. Currently, some faculty teach at community colleges and at a neighboring CSU or UC campus. There is a greater potential for different grading habits among different faculty teaching the same course at a single community college.

Effect on Student Motivation

Recognizing that student motivation to success can have a positive impact on ability and willingness to achieve, the use of plus/minus grading could support student motivation and success. To that end, it is essential for students who are highly motivated and perform better to see the rewards reflected in their grades. Conversely, students who have less motivation and submit less efforts should also see the consequences reflected in their grades.

In the current system, students in sequential courses can become, in one circumstance, discouraged by having significant improvement evaluated as if there were no improvement and, in another circumstance, complacent by having significant decline in achievement evaluated as if there were no decline. This point is exemplified in the situation below.

Zia and Rudy have chosen the same major and are enrolled in that discipline's core sequence of courses. In the first term Zia tries hard and amasses 445 points that translate to a B grade while Rudy is not confident, noncommittal, and amasses 405 points that also translate to a B grade. In the second term, Zia is distracted by things extra-curricular and slips 40 points (10% of the possible scale) but still receives a B. Meanwhile Rudy screws up his courage, tries hard, and raises his point total to 445 but still gets a B.

In anticipation of a third term, the message received by Zia is likely to be "I can coast since I didn't even try this term and still got a B." At the same time, the message received by Rudy is likely to be "I'm not good enough. I worked a lot harder but it didn't make any difference since I still got a B. I'll never be able to get an A."

Effect on Student Retention, Persistence, and Success

Discussions about accountability contain frequent references to retention, persistence, and success. Districts throughout the State include these variables on their research agendas, in their State accountability reports, and in many plans related to academic programs and services. Sound educational planning and effective program evaluation rely heavily on accurate data related to students access, retention, persistence, and success. Because student performance evaluations directly impact plans and goals of the college, accuracy of student performance evaluation informs the faculty in their responsibility to examine curriculum and pedagogy in order to positively affect student access, retention, persistence, and success.

Similarly, the absence of the plus/minus grading option could lead to inaccurate conclusions

drawn for the purposes of establishing course offering needs, hiring sufficient faculty, and identifying necessary student services. Under the current system, students pursuing high GPA's are under such pressure that they are predisposed to drop courses early or if they perceive their GPA would be negatively impacted by an anticipated grade. In dropping after the Aadd date, @ such students prevent other students from enrolling in the course. Additionally, students may be less likely to drop a course if the lower adjacent grade had less of a negative impact on their GPA. These problems are exemplified in the situation below:

Marfa is a very ambitious student whereas Nthuy is unpretentious and somewhat unsure of her potential and what she deserves. Marfa and Nthuy both intend to enroll in Math 50, a required course in their major. Marfa's registration time is before Nthuy's and she gets one of the last seats in the class whereas the class is filled before Nthuy gets to register. In the third week of the term Marfa gets the results of the first quiz, a B. Doing some quick calculations, Marfa figures out that she will have to average a solid A in order to get an A in the class. She thinks she cannot afford to get a B, both because of the presence of a B on the transcript and, more importantly, because of the effect of the B on her GPA. She drops the course.

All together then, two students wanted to take the course and neither ended up completing it. Problems like these are known to precipitate unnecessary changes in educational plans, lack of persistence through an educational plan, and, unfortunately, at least temporary cessation of studies.

Effect on Financial Aid Qualification

The students and the Board of Governors expressed concern that the permissive use of plus/minus grading may cause some students who are receiving financial aid with a grade of C to lose their financial aid reward with a grade of C-. The proposal contained herein does not include a C- option.

Effect on Ability to Transfer

Despite the use of the plus/minus grading, the minimal grade necessary to satisfy most transfer requirements is a C. Therefore, concerns were voiced about the dilemma a student faces having earned a C- in the community college, thereby not being able to repeat the course. Neither could the student transfer. To that end, in the State of California, the student would be trapped and would either have to go to another community college to take a parallel course or would have to take a different course satisfying the same transfer requirement if such a course exists at that college.

Conversations with the UC and the CSU faculty revealed the legitimacy of this concern. While admittance to the UC and CSU is unaffected by pluses and minuses, the determination of the status of a C- as satisfactorily meeting a major requirement is left to the individual universities and academic departments. Additionally, the Intersegmental General Education

Transfer Curriculum agreement specifies a C as the minimum passing grade for a course. This required minimum means at both UC and CSU a grade of C- would not qualify. While it is possible to address the issue in the Intersegmental Committee of the Academic Senate for California Community Colleges, our best judgment is to exclude the C- from the proposal as an option in light of these very legitimate concerns expressed by the students.

Effect on GPA

The 1989 Chancellor's Office report concluded that there would be a marginal decline in GPA given implementation of the plus/minus grading option.⁹ The basis of this opinion was that, since A+ does not = 4.3 in the proposal, there would be, in effect, more minus grades given. This opinion concluded, however, that the number of students who would drift down below a 2.0 GPA and go on probation would be 1 or 2 per college. In the current proposal, given the absence of the C- grade, the logic used for the speculation of grade decline disappears.

In a 1992 national study, the American Association of Collegiate Registrars and Admissions Officers (AACRAO) presented various findings as part of their study on plus and minus grading. Among them:

“Singleton and Smith (1978) argued that institutions that implemented plus and/or minus grading systems would also help their faculty in awarding more reliable grades of student performance. They noted that the predictive validity of a student’s record would be more accurate if the student was evaluated on a plus and/or minus scale even with the existence of inflated grades. Finally, Quann (1987) acknowledged that fractionated grading systems provide for more accuracy in grading, and therefore, they reduce assessment errors due to grouping.”

The “conclusions” section of the study begins:

“After analyzing the data from the 1992 AACRAO Study, and after making comparisons between the new information and the data collected in previous AACRAO studies, the following conclusions are offered: Colleges and universities that utilize four-point undergraduate grading systems are increasingly making those systems more detailed and specific. The data revealed that a significantly greater number of the 1992 respondents, in comparison with the 1982 respondents, employ a plus and/or minus, combined letter numeric, or non-letter grading system instead of using a simple letter only grading system. This is consistent with Quann’s (1987) expectation that more institutions would implement plus and/or minus grading systems as a response to grade inflation. It may also reflect the concerns expressed by Cole (1993), Grieves (1982), and Singleton and Smith (1978) which implied that a means of more accurately and specifically reflecting a student’s performance is needed.”

⁹Klein, Charlie, p 24

The study does not draw any conclusions about the actual GPA effects of adding the choice of plus/minus to grading standards. The AACRAO Study did find a very slight decline in average GPA among the colleges and universities studied from 1972 to 1982, but stated that the implementation of plus/minus was not separated from an effort to curb grade inflation. This interpretation means that one could not necessarily predict a decline if curbing grade inflation was not a primary goal. In California, students transferring from the California community colleges (that do not have the plus/minus grading option) to UC and CSU (that mostly do have the plus/minus grading option) have GPA'S at CSU as high or higher than CSU native students and nearly identical at UC to UC native students. Thus, grade inflation is not particularly a grounds for concern and is therefore unlikely to be a goal associated with implementation of plus/minus grading.