Advising Students About Required Grade-Point Averages

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Sophomores interested in professional colleges with grade-point average (GPA) standards for admission to upper division courses will need specific and realistic information concerning the requirements. Specifically, those who fall short of the standard must assess the likelihood of achieving the necessary GPA for professional program admission. The Excel spreadsheet described in this paper yields quantitative data that serve as a basis for clear communication and effective advising. For students who have a high probability of success, the information provides a target, and the accompanying advising can increase motivation to reach it. Conversely, students not likely to attain the necessary GPA can be more easily convinced to redirect their time and energy into another major in which they can be successful.

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Relative emphasis: practice, research, theory

Rationale for Grade-Point Average Standards

Admissions committees at U.S. universities consider many factors when deciding to matriculate first-year students. The results of numerous studies suggest that high school performance is a strong predictor of academic success in college (Wishart, 1990). For example, extensive research by the Florida State University System revealed that the greatest single predictor of success in college is high school grades (Micceri, 2001), and Pettijohn (1995) found a significant correlation (r = .62) between high school and college grade-point averages (GPAs).

In addition to GPA standards for incoming freshmen, many professional colleges, such as those of education, nursing, and business, have special requirements for admission to their programs, which most often admit students at the beginning of their junior year. Usually, these program requirements include a minimum GPA that is higher than the traditional 2.00 GPA required for graduation from the institution. Students meeting the higher GPA requirement typically have better preparation, higher ability, increased motivation, or improved chances for success than their counterparts with lower GPAs.

Four studies of business students appear to confirm that entering juniors with higher GPAs have a greater likelihood of success during the last 2 years of undergraduate work than those with lower GPAs. Based on an analysis of grades for 400 accounting majors at the University of Missouri, Dockweiler and Willis (1984) determined that the GPA at the beginning of the junior year was the single best predictor of subsequent performance. Borde (1998), using a sample of 349 students, concluded that prior college GPA was the most important predictor of performance in an introductory marketing course, and similarly, in 2005, Brookshire and Palocsay (n = 310) found that a student's college GPA was the strongest predictor of success in a management science course. A survey of 483 business students (Pharr & Bailey, 1993) revealed that sophomore cumulative GPAs as well as GPAs for five sophomore prerequisite courses were significant predictors of students' future academic difficulty. The researchers concluded that admission standards for a business program produce several good results, including minimizing student failures and making upper division courses more challenging and rewarding for those students who are admitted. In their words: "As educators, we have a responsibility to counsel students out of programs for which they have a high probability of failure" (Pharr & Bailey, 1993, 69).

These findings are not limited to business-related curricula. Ditchkoff, Laband, and Hanby (2003) determined that the cumulative pre-matriculation GPA was the best predictor of academic performance for transfer students in required major courses in the wildlife sciences curriculum at Auburn University.

The Setting

Often GPA standards for admission are established for both practical (e.g., constraints concerning faculty, facilities, and budgets) and academic reasons. Such was the case for the Langdale College of Business at Valdosta State University as it gradually ratcheted up the GPA necessary for admission to its upper-division curriculum. The required GPA was increased from 2.00 to 2.30 in 2000, raised again to 2.60 in 2002, and then increased to 2.80 in 2004. The stakeholders of the College of Business desired to improve the academic-related qualities of graduating

students. Anecdotal evidence suggests that removing students at the lower end of the GPA scale noticeably improved a variety of dimensions in the academic environment. Faculty members observed that the remaining students have greater ability, more commitment to their classes, and fewer absences than had their peers with lower GPAs.

A need to cap enrollment was a second reason that the faculty adopted higher GPA standards. Facilities and faculty resources were stretched to the limit, and increased space and additional faculty were unlikely to be forthcoming. When considering the GPA levels to implement, an enrollment management committee carefully estimated two quantities: a) the percentage of business students who would potentially be affected by various GPA levels, and b) the probable effect on business student enrollment.

Implementation of Grade-Point Average Standards

The transition to new GPA standards has gone very smoothly in large part because student awareness has been created in a variety of ways. First, the necessary GPA for entry to junior-level classes is emphasized orally at all orientations, which are mandatory for all new freshmen and transfer students. In addition, all students are given a manual that contains information about advising, registration, scheduling of classes, curriculum, and various academic regulations and requirements, including the GPA necessary for admission to the College of Business and the accompanying permission to enroll in junior- and senior-level business classes. Furthermore, key personnel at the primary sources of transfer students have been informed about the GPA standard.

When the sophomore curriculum is being completed and the GPA requirement has been met, the student is formally admitted to the College of Business and assigned the major of his or her choice. Until formal admission takes place, the Web Banner computer registration process prohibits students from taking any 3000- or 4000-level business courses, and thus, also enforces the required GPA.

Despite a smooth transition to new GPA standards, informing students at the beginning of their university careers about GPA requirements was insufficient. Many sophomores who had begun at the university as freshmen had earned GPAs below the required standard and needed to be reminded of the GPA requirement. Transfer students with GPAs below the College of Business requirement were admitted to the university, and some were not aware of the GPA standard until they arrived on campus or shortly before their arrival. These students needed concrete and timely guidance about the performance necessary in their remaining courses to become eligible for admission to the College of Business.

Quantifying the Chances of Admission

Tukey (1994) described spreadsheet and hypertext programs that could be used to ascertain the grades students need to earn a desired GPA. Leonard (1996) reported the use of a target-GPA prediction module as part of a comprehensive Web-based advising system (www.nacada.ksu.edu/Journal/Volume-TwentySix-Issue-2.htm). The module is based on algebraic formulas and visualized via an Excel spreadsheet. It is used to quantify the chances of a student reaching a GPA standard and improve the quality of advising.

Nearly all of the examples presented in this article pertain to students who need a 2.80 GPA to enter a college of business. However, the process can be generalized to accommodate any upper-level entry program (education, nursing, etc.), any specified GPA requirement, and readmission decisions for academically suspended students.

Whether or not a student can raise her or his GPA to a particular level is a function of two factors: the difference between the student's current GPA and the desired GPA (i.e., the size of the gap that needs to be bridged), and the number of hours left before she or he begins the upper division curriculum (i.e., the number of hours with which the gap can be bridged). The chances of obtaining the required standard are higher when the difference between the current and desired GPA is small and the student needs to take a relatively large number of lower level classes.

To evaluate the potential for a sophomore with a low GPA to achieve a goal GPA, the advisor should first determine how many hours remain until only junior- and senior-level major courses are left uncompleted in the student's program of study. Because all business majors need 120 semester hours, 45 hours of which are upper-division business courses, students can take up to 75 hours before being admitted to the College of Business. Using only a student's total number of quality points, number of semester hours attempted, and the number of lower-division semester hours left, the advisor can calculate several helpful statistics. For example, the number of hours a student would need to complete at the 3.00, 3.25, and 3.50 level

to raise his or her GPA to the goal can be determined. Derivations of the necessary formulas (A, B, and C) are shown in the Appendix. As Wishart (1990, p, 21) stated: "It is important [for both advisors and advisees] to know how much time is left in the student's program and what level of academic performance would be needed for the student to be successful in that amount of time."

Methods of data analysis and advice delivery have evolved. At first, students were told how many freshman and sophomore hours they had left to take and how many hours would be needed at the 3.00 and 3.25 levels to raise their GPAs to the required standard. Students who could not reach the required GPA standard by making 3.25 on their remaining freshman and sophomore classes were generally dismissed from the business program. However, to allow more flexibility in advisor decision making and communication to students, a breakeven GPA was conceptualized and computed (see Formula D in the Appendix). This number states the exact GPA that must be attained for the student's remaining freshman and sophomore hours.

Collecting the Data and Delivering the Message

The Excel spreadsheet in Table 1 contains sample data for eight students. Current GPA is provided for information purposes only and does not enter into any calculations. The next three items: number of quality points, number of hours attempted, as well as freshman and sophomore hours left drive all the Excel formulas, and the information for them is taken from students' academic-advising folders. The hours needed rows and the breakeven GPA are based on Formulas A, B, C, and D (Appendix). Each decision row compares the number of hours needed at a particular GPA level with the number of freshman and sophomore hours left. Using that comparison, an if-then statement provides a decision rule concerning whether a student should be allowed to continue as a business major if she or he performs at the specified level. For purposes of reinforcement and because students relate to data differently, information is presented to advisees both in terms of hours needed at various levels and breakeven GPA. These computations are done prior to advising appointments or during advising sessions for walk-in students, at which time copies of the spreadsheet information are available for the advisor and advisee.

Initial contact is made with students with low GPAs in a variety of ways. For incoming transfer students with GPAs below the 2.80 standard for admission to the College of Business, a letter from the advising center describing their predicament is sent with the letter from the Office of Admissions that notifies the student of admission to the university. This gives transfer students some time to think about whether to remain a business major. When they arrive on campus for new student orientation, each student is assigned a specially trained advisor (Advising Center Director, Advising Center Assistant Director, or Associate Dean) who will communicate and explain all information in his or her spreadsheet column as well as provide information on available options.

Among nontransfer students, sophomores with GPAs below 2.80 and second-semester freshmen who are on probation are sent a warning letter from the Student Advising Center reminding them that their current academic performance is unsatisfactory for admission to the College of Business. Each student is urged to arrange an appointment with a member of the advising center to discuss the issues one-on-one. Other students with low GPAs are identified each semester during Advising Week as they come to the advising center to get a list of

Table 1 Analysis for advising students with less than the required 2.80 grade-point average

Factors	Al	Carol	Dan	Gina	Jack	Marie	Ron	Susan
Current GPA	1.87	2.27	2.03	2.44	2.18	2.61	2.33	2.72
No. of quality points	60	123	112	137	109	154	49	166
No. of hours attempted	32	54	55	56	50	59	21	61
Fresh./soph. hours left	46	21	24	24	31	18	54	23
Hours needed at 3.00 level (to reach a 2.80 overall GPA)	148	141	210	99	155	56	49	24
Hours needed at 3.25 level	66	63	93	44	69	25	22	11
Hours needed at 3.50 level	42	40	60	28	44	16	14	7
Breakeven GPA	3.44	4.14	4.55	3.63	3.80	3.42	2.98	3.01
Decision at 3.00 level?	No	No	No	No	No	No	Yes	No
Decision at 3.25 level?	No	No	No	No	No	No	Yes	Yes
Decision at 3.50 level?	Yes	No	No	No	No	Yes	Yes	Yes

approved courses for the next semester. Students arrive without appointments for this mandatory advising, and when applicable, the spreadsheet analysis is done on the spot and presented to them during the advising session.

Messages for students with low GPAs, especially those that suggest or require a change of major, can be unpleasant. However, Keeling (2003) stated that advisors need to be realistic with Millennial students (born between 1982 and 2003, and constituting most current advisees). Yet, advisors need to exhibit warmth, support, and concern, especially when delivering bad news. Mottarella, Fritzsche, and Cerabino (2004) suggested that advisors' interpersonal skills are more important than the specific advising approaches. Communicating to students their chances of success in attaining GPA standards is perhaps characterized as more prescriptive than developmental. Developmental advising is an egalitarian approach that includes focusing on the whole person, determining students' goals, sharing responsibility for advising and decision making, and addressing comprehensive academic concerns (Frost, 2000; Grites & Gordon, 2000). It has been referred to as the ideal advising approach (Gordon, 1994), and some writers believe that students prefer the developmental approach (e.g., Herndon, Kaiser, & Creamer, 1996). However, Keeling (2003) suggested that Millennial students may expect a prescriptive advising style, and students in the study by Mottarella et al. (2004) preferred a prescriptive approach. In any case, students need to be advised about their chances of success, and the advice needs to be both person- and information-centered with advisors using specific, accurate, and quantitative information.

Advising Scenarios

The scenarios shown in Table 1 serve as examples for analysis. All faculty members are fully aware of GPA requirements, but to ensure quality and consistency, the type of advice described below is given only by the Director and Assistant Director of the Student Advising Center and the Associate Dean.

Consider Al. His 1.87 GPA is very low, but his chances of success are improved because his GPA is based on only 32 lower-level hours; he has 46 freshman and sophomore hours left to take. (Hours taken and remaining do not necessarily sum to 75 because a student may have taken some extra hours not relevant to her or his curriculum.) Specifically, to raise his GPA to 2.80 by the time he is ready to enter the junior-senior curriculum, he would need to make a 3.44 GPA on the 46 remaining lower-division hours. Stated another way, he needs 42 hours at the 3.50 level along with a 2.80 GPA on the other 4 hours.

There is no right or wrong answer with regard to whether Al should continue as a business major, but the performance level needed is quite different from his current GPA. During his appointment with the advising center staff, as with other advisees who are substantially below the 2.80 threshold, Al would be asked about his career goals and his degree of commitment to a business major. Then he would be asked some specific questions: Are there particular reasons why your grades have been so low? What changes could you make to improve your academic performance (e.g., develop better study habits, decrease your work or course load, or cut back on extracurricular activities)?

More than one half of the university's students have SAT scores, and advisors can use the information to evaluate a student's situation. Unless Al's SAT score is substantially above average or some part of Al's situation is unusual, Al will be very strongly urged to change his major. He will be told about two or three alternative majors that he might want to consider. To graduate in these majors, Al would be required or allowed to take some business courses in the curriculum, but the GPA requirements would be less stringent. He might be given the opportunity to continue as a business major if he chooses to do so, but he will be advised in very serious tones that his chances of success are not great.

Anecdotal experiences suggest that weaker students tend to overestimate their abilities and potential achievement levels. These experiences are consistent with the research results of Svanum and Bigatti (2006), who found that students in the lower one third of a cumulative GPA cohort greatly overestimated their future academic performances. Some students do not follow the advice to change majors, but at least they have the benefit of concrete numbers and professional judgment on which to base their decisions. They know the level to which they must perform academically, and that if they do not meet the requirements, they will be required to change their major. If Al chooses to continue as a business major, his progress will be monitored and his status will be reevaluated each semester.

Carol's current 2.27 GPA is substantially higher than Al's GPA, but she has fewer freshman and sophomore hours left (21) in which to raise her GPA. The 4.14 breakeven GPA is mathematically impossible because of her lower-division credit-load limit. She needs 40 hours at the 3.50 level, almost twice as many hours as she has left. (She could take many hours of extra electives, but because

the chance that this strategy will work is extremely remote, it will not be mentioned as an option.) Carol will be told about alternative majors and dismissed from the business program.

The result of the analysis for Dan will be the same as for Carol. With the worst of both worlds, a low (2.03) GPA and a small number of hours (24) left, Dan's 4.55 breakeven GPA is unattainable. Although the context is not equivalent to that of this hypothetical situation, Caldwell's 1980 research (as cited in Wishart, 1990) showed that students who change majors after becoming more realistic about themselves and their majors are more likely to succeed when reinstated than are students who continue to pursue majors that are inappropriate for them.

Gina and Jack will be given advice similar to that given to Al. Even if they earn a 3.50 GPA on their remaining 24 and 31 hours of freshman and sophomore courses, they probably cannot reach a 2.80 before beginning their upper-division courses. They can continue in the business program if they wish because they each have a slight chance (at the 3.63 and 3.80 level) to achieve a 2.80 GPA. However, they will be strongly advised to change majors because the gaps between their current GPAs (2.44 and 2.18) and the needed GPAs on their remaining hours are very large.

Marie's GPA of 2.61 is relatively good, but because she has only 18 hours remaining, she needs a rather ambitious 3.42 GPA to reach 2.80. Marie will be told that she has a difficult task. She will probably choose to continue as a business major.

Ron and Susan have the best chances of success. Ron needs a slightly lower GPA (2.98) to bridge the gap to 2.80 than Susan does (3.01) despite the fact that his GPA is substantially lower: 2.33 versus 2.72. This comparison demonstrates that the calculation results are sensitive to the number of lower level hours remaining; Ron has more than twice as many hours left than Susan does. Susan will be told that she has a very good probability of reaching the 2.80 GPA requirement; she only needs to improve her academic performance slightly. Ron will be given more stern advice than will Susan because the gap between his current GPA and the breakeven GPA is relatively big. Still, a 2.98 GPA on the remaining freshman and sophomore courses is attainable.

In addition to the analysis just described, advice can be made even more concrete by asking the student to estimate grades for the specific courses remaining. For example, suppose Gina plans to complete her freshman and sophomore curriculum by taking four 3-hour courses each of the next 2 semesters. Her initial grade estimates are shown in Table 2. These projected grades leave her six quality points short of a 2.80 GPA, and she needs to consider seriously whether she can attain one grade higher in two of the courses. The projections further demonstrate to Gina her limited chances of achieving the standard necessary for admission.

Additional Observations

As the scenarios illustrate, advice given during personal appointments can be quite varied, but four major gradations exist:

1. Modest improvement is needed.

Table 2 Effects of Gina's projected grades and credit hours on her grade-point average

Status	Grade	Cumulative GPA	Credit Hours	Quality Points
Current		2.44	56	137
Projected Semester 1				
Accounting I	A		3	12
Microeconomics	B		3	9
Environment of Business	A		3	12
Calculus	C		3	6
After 1 Semester		2.59	68	176
Projected Semester 2				
Accounting II	A		3	12
Macroeconomics	B		3	9
Business Writing	A		3	12
Statistics	B		3	9
After 2 Semesters		2.73	80	218

2. Substantive improvement is needed, but chances of success are still good if necessary changes are made.
3. Success is possible, but very unlikely. The student should change his or her academic career objective.
4. Success is impossible, and the student must change her or his major.

Despite being somewhat subjective, the four types of advice are based on factual information and provide good guidelines for advisors. Few students have been admitted with GPAs below 2.80, but exceptions are rare. For example, students who have good SAT scores but earned low grades during their initial college experience and subsequently achieved at the 3.50 level for 2 or 3 semesters may be admitted with a GPA lower than 2.80. In addition, extraordinary situations are accommodated because often student maturity and motivation increase over time. For example, Schuster (1971) found that longer times out of school increase the probability of success after readmission. However, Hall and Gahn (1994) did not find support for this finding.

Readmission Decisions and Quality Point Deficiencies

Spreadsheet data can also be used as input for making readmission decisions concerning academically dismissed students. If a specific deadline or credit load does not limit the efforts to raise the GPA to an acceptable level, the analysis based on hours needed and breakeven GPA does not work well. However, the concept of quality point deficiencies (QPDs) is useful in these situations. With a target GPA of 2.00, QPDs can be easily explained to students: Each 3-hour course with a grade of B reduces a QPD by 3 points and each 3-hour course with a grade of A reduces a QPD by 6 points. As one might expect, studies have shown that students with numerically smaller QPDs had greater success after reinstatement (Kinloch, Frost, & MacKay, 1993; Wishart, 1990).

Table 3 shows sample data for three students who have applied for readmission. Todd has only 7 deficiency points and thus needs only 7 hours of B or 4 hours of A grades (or an equivalent mixture of A's and B's) and no grades lower than C to reach a 2.00 GPA. He has a good chance of success, but nevertheless, he will be asked a number of standard questions in his personal interview with those who will make the readmission decision. For example: Why did you have grade difficulty? How would you do things differently if readmitted? Do you plan to work while in school? How many hours do you plan to take each semester? (Smaller loads are worthy of consideration.) Other issues may enter into the readmission decision, such as class standing, intervening GPA at another college, length of time out of school, number of times dismissed, SAT or ACT scores, and perceived motivation. Because of his few deficiency points, Todd will be readmitted if he satisfactorily answers the interviewers' standard questions.

Because Valerie has a lower GPA on a larger number of hours than Todd, her situation is more problematic. With 19 deficiency points, she needs 19 hours of B's, 10 hours of A's, or an equivalent mixture of A's and B's, and no grades below a C to reach a 2.00 GPA. She will probably also be readmitted, but the outcome is less certain than for Todd.

Walt is unlikely to be readmitted because he has 31 deficiency points. However, the strictness of the university policy as well as interview results are mitigating factors.

When a credit load limit is used as a contingency toward continued enrollment of a readmitted student, a necessary GPA, which is similar to the breakeven GPA, can be considered in the readmission process. For example, suppose that returning students must raise their substandard GPAs to a 2.00 cumulative GPA after 30 hours of course work. The necessary GPAs for Todd and Valerie (2.23 and 2.63) constitute reasonable expectations, but the necessary GPA of 3.03 seems out of reach for Walt with his incoming 1.20 GPA.

QPD analysis can also be used with target GPAs other than 2.00, such as those considered for student application to a professional school. For a 2.80 GPA standard, for example, each grade of B reduces a QPD by 0.2 points per semester hour, and each grade of A reduces a QPD by 1.2 points per semester hour. For the sake of clarity, estimated grades for specific future courses are used to illustrate the effect of QPD reduction on admissions decisions. Table 4 shows the impact of Valerie's projected grades for

Table 3 Analysis for advising students requesting readmission

	Students		
Factors	Todd	Valerie	Walt
Current GPA	1.75	1.62	1.20
No. of quality points	49	83	47
No. of hours attempted	28	51	39
Quality point deficiency	7	19	31
Hours allowed to raise GPA	30	30	30
Quality points needed	67	79	91
Necessary GPA	2.23	2.63	3.03

2 semesters. These results show that if she can attain the grades projected, she will raise her cumulative GPA above 2.00 and her QPD of 19 will improve to a quality point surplus (QPS) of 8.

Assessment of Effectiveness

Consistency is an important part of effective advising. As indicated earlier, to ensure consistency among advisors, use of the spreadsheet is limited to three people, two of whom have no duties other than advising. For students with appointments, the spreadsheet analysis is prepared in advance, and for walk-ins, the spreadsheet is analyzed during the advising session. To ensure that the student does not misinterpret the data, spreadsheet analysis is not given by phone, mail, or E-mail. The uniform data produced by the spreadsheet provide a framework for a standardized process that results in consistent advising among students.

All three advisors at the Langdale College of Business like the spreadsheet analysis and find it to be very useful. One advisor commented: "It makes it easy for students to understand what they need to do to get their grades to a certain level." This sentiment is also frequently expressed by advisees. Another advisor stated: "It's so simple to use and you get fast, accurate results."

Clarity is also an important part of advising, and when advising effectiveness is evaluated, the ability of an advisor to communicate clearly to students should be considered. Some students identify better with the breakeven GPA concept; others understand the analysis when the advisor explains the hours needed at certain levels. Also, at times, advisors supplement the spreadsheet analysis by calculating the effects of projected grades in specific courses. Because advisees may be overly optimistic, one advisor also analyzes the spreadsheet after lowering each projection by one grade. When necessary, recalculations are done each semester to show students their progress and current status. Clarity is consistently achieved by repetition and variety; that is, information is restated as many times as necessary for understanding, and it is stated in several different ways to ensure clarity.

A third issue of advising effectiveness pertains to the feelings of students about the advice given: Are students reasonably satisfied when they leave an advising session? Serious students appreciate the information and take the initiative to try to accomplish whatever is necessary. Overwhelmingly, student reactions have been positive, and even when a change of major was required or recommended, students were accepting of the information. Many students agree with an advisee who said, "It helped me know how many courses and what grades were necessary [before admission]." A female student stated rather poetically: "It [the advice given] provided me a compass." Another advisee commented that the advice "gave me a window of opportunity and directions about how to get there." Yet another reacted by saying: "If being a business major is not

Table 4 Effects of Valerie's projected grades and credit hours on her grade-point average

Status	Grade	Cumulative GPA	Credit Hours	Quality Points
Current		1.62	51	83
Projected Semester 1				
World Literature	C		3	6
American History	B		3	9
Political Science	B		3	9
Philosophy	A		3	12
After 1 Semester		1.89	63	119 (7 QPD)
Projected Semester 2				
Anthropology	A		3	12
Microeconomics	B		3	9
Social Problems	A		3	12
Statistics	C		3	6
After 2 Semesters		2.11	75	158 (8 QPS)

Note. QPD = quality point deficiency; QPS = quality point surplus.

possible, at least I know some other options." On the negative side, a male student declared: "Just tell me what classes I need and make me eligible to register; I don't need to hear all the rest," and a female student lamented: "I still believe I could do well in business classes and I think I should be given a chance." However, taken as a whole, comments by advisors and advisees point to the conclusion that advising based on spreadsheet analysis is effective.

Summary

Professional colleges with a GPA standard for admission to upper division courses will invariably draw students seeking admission who have less than the required GPA. These students need specific, realistic, and timely information concerning the likelihood that they can achieve the necessary GPA. As noted earlier, these students are often overly optimistic about their future academic performance. They may need a reality check and a warning. They should not take course work for an upper-division professional curriculum only to realize that they cannot be admitted. Such poor planning prolongs programs of study; students could have used the time to pursue a major that is more suitable to their abilities. Students also need to receive information about possible alternative majors in which they can succeed.

The algebraic formulas and Excel spreadsheet allow the faculty and staff to provide advice and make decisions concerning continuance in a program based not only upon judgment and experience but also upon relevant quantitative information. Any or all of three approaches can be used as a basis for advice and decisions:

1. Determine the number of hours needed at specified target levels (e.g., 3.00, 3.25, or 3.50) and compare those numbers to the number of freshman and sophomore hours remaining.
2. Determine the breakeven GPA needed to reach the GPA standard for admission.
3. Determine the effect of projected grades on specific courses on cumulative GPA.

Using multiple approaches is preferred because they may help diffuse the idea that decisions are being made solely on the basis of the breakeven GPA.

The information yielded by the spreadsheet improves the quality of advising in several ways. It gives a clear picture of exactly the goals students must achieve to meet the GPA standard. Thus, it enables the advisor to communicate convincingly to the student about the degree of his or her dilemma. On one hand, if the student has a good probability of success, the advisor can provide encouragement and help instill motivation to reach the target. On the other hand, students not likely to succeed can be redirected to a different major. In the latter case, the advice may not be pleasant to the advisee. However, the message is grounded in good information, and if it is explained clearly and delivered with concern and sensitivity, the advice provides a service that is not only valuable but also appreciated.

From an administrator's point of view, consistency in giving this type of consequential advice is of paramount importance. Each advisor making such decisions must be consistent from one student to the next. In addition, multiple advisors should make decisions consistent with each other. Such consistency is necessary for advising to be fair to all students. While use of this formulaic approach can enhance both types of consistency, good advice requires multiple indicators and sound judgments.

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Appendix Algebraic derivation of formulas

Algebraic Derivation of Formulas

To determine the number of hours a student would need to complete at the 3.00 level to raise her or his GPA to 2.80, let h = the number of hours attempted, Q = the student's total number of quality points (Q = GPA*h), and x = the number of hours necessary at the 3.00 level to achieve a cumulative GPA of 2.80. Use the equation $(Q + 3.00x) / (h + x) = 2.80$, in which the numerator of the fraction is the total number of quality points accumulated, and the denominator is the total number of hours completed after the student takes x additional hours beyond the h hours she or he has already completed. The quotient represents GPA, which is set equal to 2.80. Solving for x, simple algebra yields formula A:

$$x = (2.80h - Q) / 0.20.$$

This formula can be entered into an Excel spreadsheet to determine the number of hours needed at the 3.00 level for any combination of quality points attained and hours completed.

Similarly, to determine how many hours a student needs to complete at the 3.25 level to raise his or her GPA to 2.80, solve this equation for x: $(Q + 3.25x) / (h + x) = 2.80$, which results in formula B:

$$x = (2.80h - Q) / 0.45.$$

At the 3.50 level, the formula (C) is

$$x = (2.80h - Q) / 0.70.$$

To calculate the breakeven GPA necessary to reach a 2.80 GPA standard, let L = the number of hours left in a student's freshman-sophomore curriculum; let G = the GPA on those remaining hours; define h and Q as done for formulas A, B, and C. Use the equation $(Q + GL) / (h + L) = 2.80$, in which the numerator of the fraction represents total quality points and the denominator represents total hours accumulated. Solving for G, formula D is as follows:

$$G = [2.80(h + L) - Q] / L.$$