1 *THIS* IS COLLEGE

Going to college is a very special sort of experience. A time of tremendous personal growth. A time when some students get their first serious taste of independence, while others find their BFFLs, increase their Facebook friends exponentially, or even meet up with their future spouses. But even more important, college is also a time of great intellectual growth. A chance to study things you didn't even know existed or to delve into topics you do know about at a level of detail and sophistication that you've never before imagined.

Because college is so special, it's important to make the most of it. To squeeze all the juice out of it and drink it all up. Especially when it comes to the academic side of things, where students often don't reap all the benefits college has to offer. This chapter will help you understand what college is all about—to get a real picture of what you are about to go through or are already going through. And it will offer basic tips about the things that matter most at college—no matter what kind of college you're going to.

In this chapter you'll learn:

- 10 Things You Need to Know About College (but Probably Don't)
- What's New at College? Fun Facts
- The 15 Habits of Top College Students
- The 10 Worst Self-Defeating Myths

- The 11 Secrets of Getting Good Grades in College
- 20 No-Brainers to Save Money at College
- 14 Ways to Ensure You Graduate in Four Years
- Top 10 Tips for Community College Students
- 10 Best Tips for Engineering School
- Top 10 Tips for Applied Arts and Design Colleges
- The College Student's Bill of Rights

10 Things You Need to Know About College (But Probably Don't)

1. **You're in charge of this thing.** For many students, the most striking thing about college is that there's no one there to hold your hand. Picking courses, getting to class, doing the reading, and figuring out what's going to be on the test and what's expected on the papers—all of these are things you're going to have to do pretty much on your own. Sure, there are profs (and, in some schools, TAs) who'll give instructions and offer suggestions from time to time. But you're the one who'll have to take responsibility for hauling your butt out of bed when it's ten degrees below zero—or one hundred and five above, depending on what school you're at—and doing what you need to do.

2. **Your parents may not be much help.** Some students are on their iPhone five times a day looking for advice from Mom or Dad. But even the best-intentioned parents can lead you astray. Colleges are different—and, in many cases, much improved—from what they were twenty-five years ago, and professors' expectations have changed accordingly. Suggestion: tune down (or, in some cases, tune out) the parents until you have a firm handle on what's expected at your college—today.

3. **Attendance isn't required—but is expected.** One of the first things many students discover is that college classes can be huge: 100, 200, and, at some state schools, even 700 students in a lecture. In such an anonymous environment, it's the easiest thing in the world to tell yourself there's no good reason to bother going to class. (Even if your school has small classes, attendance typically counts for only a tiny percentage of the grade, if at all.) But professors assume you've made all

the classes, and they have no hesitation about asking a midterm or final question that focuses on the contents of a single lecture. Kinda makes you want to go, doesn't it?

4. **Content is doled out in large units.** You may be used to getting your content in short, entertaining blasts: the one- to three-minute YouTube video, the abbreviation-filled IM, the 140-character tweet. But the professor is thinking in terms of the fifty-minute lecture, divided into only two or three main segments; and the author of the journal article is thinking in terms of twenty-five pages of densely written argument, divided into perhaps three or four main sections. Bottom line? You've got to adjust your focus from quick bursts of content to sustained argument. And retrain your attention span to process long—very long, it'll seem—units of content.

5. **Up to two-thirds of the work is done outside of class.** Contrary to what you might have heard, the lecture portion of the course is the least time-consuming activity. That's because (with the exception of a few very basic, introductory courses) the professor is expecting the bulk of the work to be done by you, on your own. Doing the reading and homework; preparing for the quizzes, tests, and presentations; doing research and writing papers—all of these are activities that can easily eat up more than half the time you put into any given course.

6. **A C is a really bad grade.** Many first-year college students—and even some students who've been at college for a while—think that if they get C's in all their classes they're doing just fine—or at least adequately. But what these folks need to know is that in some college courses the grade distribution is 20 to 30 percent A's, 30 to 60 percent B's, and only 15 to 30 percent C's. Set your sights accordingly.

7. **Not everyone who teaches is a prof.** At many state universities—especially those where the student-faculty ratio is 15 to 1 or greater—much of the teaching is done by graduate students. At some of the better state schools (the University of

California and the University of Texas, for instance), only very advanced graduate students are allowed to teach their own courses. But at other schools (we won't mention names because we want to keep our jobs), the lecturer can be a first-year graduate student who might not even have majored in the field in college. Moral? Whenever possible, take courses with regular faculty, who'll be more experienced and, in the best cases, will actually have done research in the subject they're teaching.

BEST-KEPT SECRET. **Colleges don't always list the name of the instructor in the course description or at the online registration site. Sometimes it's because they've made last-minute appointments, hiring some adjunct or TA a few weeks before the semester starts. But sometimes it's because they don't want to highlight how few of the courses are taught by the regular faculty. Go to the department office the week before classes start and ask who's scheduled to teach the courses you're interested in—and what his or her status is.**

IOHO. **Graduate students at universities are often compared to residents at teaching hospitals. But the analogy is misleading. Residents are full-fledged doctors who have completed their medical degrees; graduate students are not professors and have not completed their terminal degrees (in most fields, the PhD).**

8. It's the product that counts. Many students think that *effort* counts. That's why, when papers are returned, there's always a line of students waiting to argue how many hours they worked, how many articles they read, and how hard they've been trying in the course. The thing is, in college what counts most is the *product:* the paper (not how it was produced), the test (not how

much you studied for it), and the oral presentation (not how much you knew about the subject, but couldn't quite get out).

9. **Understanding is more than just memorizing.** While some intro courses require some memorizing (vocabulary in world or foreign languages, theorems in math, names and dates in history), other beginning courses will include essays on the exams. And in virtually every advanced or upper-division course, you'll be asked not just to regurgitate what you've memorized from the lecture or textbook, but to do some analysis, apply the concepts to some new cases, or organize the material or data in some new or interesting way. Pretty different from what you may be used to.

10. **The prof's on your side—and *wants* to help.** Many students see the professor as an enemy to be defeated—the person who'll trick you with all sorts of gotcha questions on the test and who's very stingy come grade time. But really, the professor is eager to teach you and (believe it or not) would like to see you do well. That's because, in many cases, he or she has forgone a much more lucrative career in business or industry for the sole purpose of educating college students—like yourself. So when the prof invites you to come to an office hour, go to a review session, or just communicate by e-mail, Skype, or Facebook, consider the possibility that the professor really means it. Because he or she probably does.

What's New at College? Fun Facts

- ✔ There are almost 21 million students enrolled in U.S. colleges—a number growing at 4.5 percent a year.
- ✔ Almost 60 percent of college students are women, and 40 percent of college students are over the age of twenty-five.
- ✔ Community colleges are booming: over 40 percent of college students go to one.
- ✔ The *average* list price for tuition at a private college is $29,000; at a state university, $8,600 (for in-state residents; $21,700 for out-of-state students); and at a community college, $3,100—*a year.* (At some schools, the prices are considerably higher.)
- ✔ College tuition at state universities went up by an average of 4.8 percent in 2012-13—and about 6 percent a year in the decade before (community college and private college tuition grew at an average rate of only 3 percent a year in the 2000–2010 decade).
- ✔ About 75 percent of full-time college students receive financial aid. Averaged across all colleges (public and private), students in 2011–12 received about $13,000 in financial aid, of which $7,000 was in grant aid, $5,000 in loans, and $1,200 in tax credits and deductions.
- ✔ The average college student graduates with about $27,000 of student loan debt. This year, for the first time, total student loan debt is higher than total credit card debt.
- ✔ A recent study pegged the lifetime increased earnings potential of someone with a college degree at $279,893 (not a million dollars, as previously claimed).

- ✔ Over 90 percent of college students are on Facebook; 20 percent are on Twitter. (You'll get a laugh if you ask college students whether they're on MySpace.) The average college student spends about half an hour a day on social networking; 82 percent of college students log into Facebook several times a day.
- ✔ Ninety-one percent of colleges have their own Facebook pages, 88 percent use Twitter, and 79 percent make their own YouTube videos.
- ✔ Only about 10 percent of college students belong to a fraternity or sorority.
- ✔ Many colleges have new first-year experience courses or freshman seminars to help students find their place in the college community. Sometimes they have a "common-read" (a book that all first-year students have to read), sometimes they're taught in sections with different subjects or topics in each, and sometimes they're just introductions to the campus and to student life in general.
- ✔ Many students fulfill their language requirement with Mandarin Chinese, Arabic, or Japanese—not Spanish, French, or German.
- ✔ The most popular majors are business, psychology, nursing, history and social sciences, biology, education, and communications. (Classics, astronomy, film studies, aviation, and chemical engineering have the fewest takers.)
- ✔ The most lucrative majors are petroleum engineering and civil engineering. (The job prospects aren't so good in English, classics, philosophy, and art history.)
- ✔ E-textbooks and e-resources are rapidly replacing print books and brick-and-mortar libraries. Many students read their textbooks on e-readers, and some students even rent their books.
- ✔ "Smart" classrooms allow professors to incorporate PowerPoint presentations, videos, and other content into

their lectures. Some professors use "clickers" that allow students to offer instant input on how well they've understood the lecture.

- ✔ A third of all students took an online course for credit in 2011. (Some students wonder why they should go to class at all.)
- ✔ Massive open online courses (affectionately called "MOOCs") enroll tens of thousands of students (70 percent from abroad) in not-yet-for-credit courses. Some college students take them in order to study with marquee professors or to take courses not offered at their home institutions.
- ✔ Many colleges offer service learning programs: you get college credit for volunteering to do community service.
- ✔ Some schools require a year of study abroad: globalization comes to college. The most popular destination is England (they speak English there).
- ✔ The graduation rate at U.S. colleges is only slightly more than 50 percent—something we hope to change with this book.

The 15 Habits of Top College Students

What makes some college students successful, while others—well, less so? Sometimes it's a question of intelligence or insight. And sometimes it's sheer good luck. But a lot of the time it's good habits: things you do on a regular basis that set you apart from the hordes of other, more scattered students. In the hopes of separating the sheep from the goats, we offer our top 15 habits of the most successful students. You'll find that these folks . . .

1. **Have a goal.** They have a definite reason for being in college—and know what it is. Could be a future career, graduate or professional school, or just wanting to further their education. But it's almost never because their parents told them to go to college, or because it's the next thing to do after high school, or because they're too unimaginative to think up anything else to do with their time.

2. **Set priorities.** For every student, college is a balancing act between going to classes, doing the homework, having a social life, and, for many students, holding down a job. But the successful student knows how much time to allot to each of these activities—and how to set limits. Maybe partying is held down on weeknights, or an employer is told that hours have to be cut back during the jam-packed midterm week, or the family Thanksgiving dinner is jettisoned in favor of extra work on the term paper. Look, there are only 168 hours in the week—and not one of them can be spent twice.

3. **Divide up the work.** Readings get broken up into manageable chunks (not 200 pages in one sitting). Quizzes and tests are studied for over the course of a week (not at 3 a.m. the night before). And paper ideas start gestating when the assignment is handed out (not two days before the paper is due, when you

can barely formulate an idea, much less think through an issue).

4. **Are organized.** Successful students have gotten used to the fact that, in college courses, there's not a lot of redundancy or "going over." So they make it their business to make it to most of the lectures (and they don't cut the sections, either). They take really good class notes (and keep them in super-neat condition). And they always get their work turned in on time (no one-week extensions that only make it harder to complete the work in their other courses).

5. **Work efficiently.** Each task is done well—and once. There's no listening to the lecture a second time on their MP3 player (they paid careful attention the first time). No copying over all their notes (why would they do that if they have a good set from the lecture?). No doing the reading three times (once for a general overview, once to understand the argument or direction, and once to focus in on the finer points). In a fifteen-week semester, with four or five courses on tap, who has time to do things twice (or, in the case of some students, thrice)?

6. **Are consistent.** They do the work every week—even when nothing is happening on the grading front.

7. **Are persistent.** They know that sometimes the going gets tough. Maybe there's a problem set that requires serious hard thinking, or a paper that has to go through a number of painful drafts, or a presentation that has to be rehearsed 'til one really has it down. But whatever the case, the successful student doesn't flinch at the extra effort needed or the uncertainty of the result while he or she's still working on it. This student's mantra: *I'll get this thing right if it kills me.* (Which it usually doesn't.)

8. **Challenge themselves.** Successful students are intellectually energetic. So, when they read, they think actively and critically about what they're reading (not just slog their way through to get the plot). When they go to class, they actively think about, and question, what the professor is saying (not just taking it all

in like a giant sponge). And when they write papers, they probe more deeply into nuances of the issue (not just looking for the most basic, "yes/no" answer). Above all, they get the wheels and springs of their mind moving—and keep them moving throughout any intellectual task.

9. **Hang out with smart friends.** Successful students know that peer support is as important as getting good grades from professors. Finding friends who are intellectually engaged and eager—in some cases, taking the same classes as you—can stimulate and reinforce your own intellectual drive. On the other hand, spending lots of time with dorm mates who don't know what courses they're taking—or even why they're in college at all—can create an atmosphere so toxic that any attempts to do well immediately wither and die.

10. **Are open to feedback.** The best students realize that the returned papers and exams are a golden opportunity: these are the times in the semester when the professor is giving one-to-one, customized feedback on their level of achievement. So instead of tossing away the graded papers and exams, or conveniently forgetting to pick them up, these students pore over the comments and redo the missed problems in the hopes of really learning where they went wrong and how they can do better next time. All with a nondefensive and genuinely open frame of mind. (Hard for everyone, but somehow these students manage to do it.)

11. **Engage the professor.** Successful students realize that the prof isn't just some content-dispensing machine, pouring out what he or she knows during lectures, but is a working scholar who's happy to work with you on the content and materials of the course. So these students go to office hours, talk to the professor (or TA) after class, and email questions about things they didn't understand. In the best case, they forge a two-way relationship with the professor and, in so doing, learn more than the average college student and defeat the anonymity of the (for some students) alienating mega-university.

12. **Don't kid themselves.** When they study, they're really studying—not flitting between the e-article, their Facebook page, and the football scores. When they've messed up a test, they figure out where they went wrong—not just hope it'll go better next time. And when things aren't going quite according to plan, they diagnose the problem and, if need be, adjust their plan.

13. **Manage their emotions.** It's difficult to excel at college if you're feeling inadequate, bummed out, or doomed to fail. So successful students know how to focus on their own positive achievements—rather than on their failure to get a check-plus on the quiz that counts for only 2 percent of the grade. And they're not hypercompetitive or concerned to find out how everyone else did on that just-returned piece of work. They know that, for every assignment, there'll probably be someone doing better than they did—and many doing a whole hell of a lot worse. (And even if not, there's nothing they can do about it, so why add negative emotions to a less-than-stellar situation?)

14. **Visualize success.** For any multistep activity—especially one that's spread out over five years and forty-odd courses—it's helpful to imagine the end product: that is, to really picture what it'll be like, and to experience the good feelings that will come with it. That's why the most successful college students repeatedly picture what will come at the end of the road for them: their dream job, their acceptance to a prestigious graduate or professional school, or simply the next stage in their life. This provides motivation and energy, especially when you're in a rut, and makes it all seem worthwhile.

15. **Strive for excellence.** No matter what the task, successful students aim to do it well. Could be the term paper, the midterm, or even the (seemingly dumb to others) weekly quizzes, problem sets, or daily homework. No matter. *If I'm going to put my name on it*, top students think, *I might as well do it well*. Which they usually do.

The 10 Worst Self-Defeating Myths

The semester's just about to start and you've got a clean slate. And yet, some students beat themselves down before the first class has even met. Burdened with negative self-impressions and defeatist attitudes, they think up all sorts of ways in which the semester is going to go badly—and in the process ensure that it *does* go badly. Sound familiar, perhaps? Here are the 10 most common—and most destructive—things students tell themselves:

Myth #1. **"I'm just not good at math [or science or foreign language or some other required course]."** Many students have dubbed themselves bad at certain subjects, based on past experiences, future expectations, or what you've been hearing since you were six years old. But the past doesn't have to dictate the future. Maybe your difficulties were generated more by bad teaching than by any fault in your brain. Or maybe, bored to tears, you didn't pay attention in class or do the work at home. But now you have a new chance, so get psyched, do the work, and, most important, view the course as something you can do. Because you probably can.

Myth #2. **"Everyone in this place is smarter than me."** It's easy to look at the 500 students in the lecture hall and think that everyone is a better student than you—and that *they'll* be carting off all the A's. Especially if someone steps up to bat at the first lecture and asks a smart-sounding question. But don't panic too soon. Usually, the first-day showoff is more of a blowhard than a good student, and anyway, you have no way of assessing how much ability—or lack of ability—the other students have.

Myth #3. **"I don't learn well in big classes."** If you're going to a large state university (as most students are), it's easy to be buffaloed by the sheer size of the lecture: except for the lack of cheerleaders, there's not too much difference between sitting in this class and sitting in row 246 of the football stadium. But although big classes aren't the best learning environment on the planet, there are concrete things you can do to lessen your sense of alienation: take really good notes throughout the lectures (doing something defeats bad feelings); get to all the discussion sections (smaller environment and a chance to talk with other real people); and hoof it on over to your professor's office hours (one-on-one communication, always a winner).

Myth #4. **"This required course is a killer—half the people always fail."** Before you totally psych yourself out, keep in mind that the college rumor mill isn't always totally accurate. So don't necessarily trust the grade "curve" provided by your buddy (even if he or she really did fail the course last year). Also, most professors are way too scared to run courses in which half the students actually get F's (and besides, in most college courses there are significantly more A's and B's than C's and D's). But in the extremely rare case where you encounter that sort of class, why can't *you* be in the half that passes?

Myth #5. **"I just don't test well."** Tests are stressful—for everybody (except perhaps for the most laid-back surfer dude). And virtually all college courses come with tests, at least a midterm and final. But some stress and pressure can lead to good performance and improvement of skills (ask any competitive gymnast). Do what you can do to tone down the volume: use the study questions to construct and take a practice test the night before; budget your

time carefully during the exam itself, paying careful attention to the weightings of the various questions; and realize that some questions are designed to be more challenging, so don't blow a gasket when confronted with a harder question (that's how professors distinguish the A and B answers).

Myth #6. **"I'll be able to ace this course by just cramming the night before the tests."** This is one of the most dangerous—and most common—myths, especially among students who're just starting college or have been in college only a year. Sure, perhaps in Earth Sciences 102 or Sociology 107 you got away with memorizing facts from the textbook the night before the test. But as you move up in college you're likely to get courses that are cumulative—that is, where the ideas depend on one another and require time to be assimilated into your mind. Besides, there can be essay questions that, to properly prepare, take more like a week than a night. So get rid of your bravado and face up to how things really are: it's not a 15-week semester for nothing.

Myth #7. **"I can't write papers."** Many students suffer from paper phobia: they try to avoid at all costs any course that even smells of writing. And when they do have to put their fingers to the keyboard, they spend more time feeling like they're about to be sick than they do getting any words on the screen. But relax: there are many things you can do to ease the pain. Get started working right when the paper is assigned—that way you'll plenty of time for your ideas to jell and to write drafts. Go see the professor (or TA) if you're not sure what to do or you get stuck—they're happy to help, and you may get a better grade, to boot. And, most important, realize that for many students (perhaps you) writing papers is an acquired skill—one that you can get on top of with repeated practice in different courses.

Myth #8. **"I'm too shy to talk in class."** It's perfectly fine to be shy. But that's no excuse for not participating in class. Shy or not, there will be times in life when you have to speak up, not just in classes that require discussion or presentations, but in life itself—whether it's to say "I do" at your wedding or to make a good impression at the interview for your dream job. And one of the purposes of college—as with any interpersonal or group activity—is to learn to present your ideas to other living, breathing human beings (for which talking is usually required). Most classes and professors are very supportive of students who make an effort to participate, even if they don't spout a steady stream of pearls of wisdom—so take advantage of the opportunity.

Myth #9. **"I don't need to go to class—I'll just watch the lectures on YouTube."** It's no secret that there are professors who post their lectures on the Web. But thinking you can rely on the Web instead of going to class is risky business. Shocking as it may seem, it's actually much easier to get to class M, W, F at 10 than to get it up at home to watch the lectures—because, at home, no time ever seems to be the right time. Also, working from the Web affords the constant temptation to listen to five lectures in a single evening—never a good way to learn.

Myth #10. **"I'm overwhelmed—it's all too much."** You're in distinguished company here: fully one-third of all college students report being overwhelmed after just one semester. But relax; this too will pass, especially if you adopt an upbeat attitude, get whatever help you may need (consider any of a myriad of campus resources), and plan for a successful semester—without your defeatist attitudes, which probably aren't true, anyway.

The 11 Secrets of Getting Good Grades in College

Grades are the measure of college success. Like the salary at a job, a batting average in baseball, or the price of a stock, your GPA is an objective indicator of how you're doing. And yet, there's surprisingly little good information—least of all from professors—about just what you should do to get good grades. We go where others fear to tread. And so, here are the eleven secrets of getting really good grades in college (A's, we mean):

1. **Take control of your destiny.** Your grade destiny, that is. There's no teacher or parent to remind you every day what you need to do or to make sure you've studied for exams. It's all in your hands. So step up to the plate and take responsibility. The grades you get will depend on what you yourself do.

2. **Don't overload.** Some students think it's a mark of pride to take as many course hours as the college allows. It isn't. Take four or, at the most, five courses each semester. That way you'll be able to devote all your energies to a manageable number of subjects, and you won't have to sacrifice quality for quantity. (For our best tips on which courses to take, see "Do's and Don'ts for Picking Your Courses" on p. 68.)

3. **Get your a** to class.** Most students have a cutting budget: the number of lectures they think they can miss in each course and still do well. But if there are thirty-five class meetings, each class contains 3 percent of the content: miss seven classes, and you've missed 20 percent of the material.

BEST-KEPT SECRET. **Some not-so-nice professors want to penalize students who blow off the class right before Thanksgiving or spring break. So they pick an essay question for the final exam from that very lecture. End result? You can do really major damage to your GPA for the price of missing just one class.**

4. **Take really good notes.** In many intro courses, the professor's lectures form the major part of the material tested on the midterm and final. So as you're taking notes, you're really writing the textbook for the course—which in many cases is more important than the official textbook. Be sure to get down everything the professor says and to maintain your notes in an organized and readable form. After all, these are the notes you'll have to study a number of times later in the course. (For primo note-taking tips, see "10 Secrets of Taking Excellent Lecture Notes," p. 109.)

5. **Study like you mean it.** There's a difference between studying and "studying"—and you know what it is. When you're really studying, you're 100-percent focused on and engaged with the material—a total immersion in what you're doing and a strong desire to get it right. When you're only half-heartedly studying, you're really only 35 percent involved, with the other 65 percent of your attention divided among tweeting your friend about how much you're studying, scoping out the surrounding tables to see who else might be around (and how attractive they are), and daydreaming about all the fun things you'll do when you finish this awful studying. Look, we know studying can be painful, but all students who get A's do it—no matter what they tell you. (For our best study tips, see "The How *Not* to Study Guide" on p. 104.)

6. **Do all the homework.** You may think the homework and problem sets—each of which is worth maybe 0.1 percent of

the grade—are just busywork: something the professor assigns to make sure you're doing something in the course each week. But really, the homework provides applications of the concepts, principles, and methods of the field to actual examples—the same sort of examples that will come up on the bigger tests. If you do well on the homework—that is, get ten out of ten on the problem sets or a check-plus on the little writing exercises—you're putting yourself in a good position to get a 100 when it really counts: on the midterm or final.

7. **Take each test three times.** When done right, taking a test is really three activities: preparing for the test, taking the actual exam, then going over the comments to see what mistakes you made. Each activity furnishes important—and grade-improving—information: the studying gives you practice in questions very similar to the those that will be on the test; the actual test is where the A is earned (at least in the best case); and the review of the comments (often accompanied by a visit to the professor's office hour to clear up anything unclear) is an investment in an A on the next test. (For our best advice about tests, see "12 Tips for A+ Test Preparation" on p. 166, "'So What's Going to Be on the Test Anyway?'" on p. 171, and "Top 13 Test-Taking Tips" on p. 174.)

8. **Always answer the question asked.** More points are lost on tests and papers by not answering the question asked than by giving the wrong answer. That's because students often have strong—and wrong—preconceptions about what the professor should be asking. "How can the question be so specific?" they wonder. "How can the professor *not* be asking a question about last week's classes, especially since he (or she) seemed so interested in that topic?" "Can the professor *really* be asking about that journal article we were supposed to read, or about the discussion in section___?" Don't try to psych out the professor or distrust what you see before your very eyes. Answer the question, as asked, head-on. (If you're not sure what's meant, always ask—and rescue your grade.)

9. **Play all four quarters.** Many college courses are "back-loaded." More than half the grade is left to assignments due the last month of the semester: a third test, 15 percent; the term (or research) paper, 25 percent; the cumulative final, 30 percent. You get the idea. Pace yourself and don't run out of gas just as you're coming into the home stretch.

10. **Do all the "extras."** In some courses, there are special end-of-the-semester activities that can improve your grade. Review sessions, extra office hours, rewrites of papers, extra-credit work—all of these can be grade-boosters. Especially in schools where there are no pluses and minuses, even a few extra points can push your borderline grade over the hump (from, say, a B+ to an A–; that is, an A).

11. **Join a community.** Many students improve their grades by working with study buddies or study groups. Try to meet at least once a week—especially in courses in which there are weekly problem sets or quizzes. And if your school offers "freshman clusters" in which a group of students all take the same section of some required courses, sign up for them, too. Students can improve their grades one level or more when they commit to working in an organized way with other students.

5-STAR TIP. Resolve to get at least one A each semester. Getting even a single A will change the way you think about yourself: you'll be more confident about your abilities and more energized for future semesters. If you're at all close in even one course, work really hard to get that A. It will change things forever.

20 No-Brainers to Save Money at College

For some, it costs about as much as a Lexus ES. *Every year.* For others, about as much as a Honda Fit. And some will get change from a $5,000 bill. It's college, and, whichever way you slice it, it's very expensive. But cheer up. We've got twenty tips to help you save money at college. Even if you're laying out big bucks, at least you'll get more bang for your buck. Here's how:

1. **Cut the costs of textbooks.** The average student spends $1200 a year on textbooks. You needn't. You can save a bundle if you order ahead and don't depend on the campus bookstore. Compare all the alternatives: print books (plus buyback), e-books, book rentals, and marketplaces. For print and e-books, check out WWW.AMAZON.COM, WWW.BN.COM, WWW.ABOUTFOLLETTEBOOKS.COM, and WWW.HALF.COM, as well as your brick-and-mortar campus bookstore. Rentals are available at WWW.CHEGG.COM, WWW.BOOKRENTER.COM, and WWW.CAMPUSBOOKRENTALS.COM. And for marketplaces (purchases from and sales to real people), go to WWW.TEXTBOOKSRUS.COM or WWW.TEXTBOOKX.COM.

5-STAR TIP. For all book modalities (print, e-, and rentals), check out the aggregators (sometimes called meta-sites): these are websites that compare the prices of many other bookselling websites. Two we especially like are WWW.CHEAPESTTEXTBOOKS.COM and WWW.BIGWORDS.COM (others include WWW.BESTPRICEBOOKS.COM, WWW.CAMPUSBOOKS.COM, WWW.TEXTBOOKS.COM, and, for rentals, WWW.TEXTBOOKRENTALS.COM).

BEST-KEPT SECRET. Many "classic" books are available for free on the Web, thanks to Project Gutenberg, WWW.GUTENBERG.ORG. See whether your book is one of them.

2. Get a cheaper device. Many students starting college lunge at the most expensive devices: a fancy, full-sized tablet or one of the new, and expensive, Touch or Ultrabook laptops. In many cases, though, you can make do with much less: a mini tablet, a less powerful (and less expensive) laptop, or sometimes a mere e-reader. Check out "10 Things to Consider Before Buying a Tablet, E-Reader, or Laptop for College" on p. 62 for our best suggestions.

5-STAR TIP. Be sure to check out all sources—and look for "academic" or "educational" pricing—for all your hardware purchases. Always start with your campus computer store; often they have special back-to-college pricing. But if you're thinking Apple, consider the Apple Store for Education (HTTP://STORE.APPLE.COM/US/BROWSE/HOME/FINDYOURSCHOOL); Dell, Dell University (WWW.DELL.COM/COLLEGE); and Hewlett Packard, the HP Academy (HP.FORCE.COM/EXTERNAL/HPACADEMY). Also, of course, Amazon and WWW.MACMALL.COM.

3. Get academically priced (or in some cases, free) software. If you're wedded to Microsoft Office (which includes Word, Excel, PowerPoint, and a number of other programs), you'll be pleased to learn that most years Microsoft offers a special discount for college students (search "Microsoft Office Academic" for a link). For those watching their pennies, Apache's OpenOffice and the open source LibreOffice are downloadable, absolutely free (can't beat that). If you're expecting to do heavy graphics,

search for Adobe Creative Suite at a student price (search the Web or check your campus computer store—they're likely to know).

BEST-KEPT SECRET. Discounted software for students is available at WWW.ACADEMICSUPERSTORE.COM and WWW.JOURNEYED.COM. Good values, always.

4. **Get some apps.** If you're one of the hundred-million or so people worldwide who own an iPhone, you'll want to get some apps especially tailored to college (most of them will set you back a buck or two or three). Some we like include:

   - *iStudiezPro* (organizing your schedule)
   - *PocketList* (to-do lists)
   - *EverNote* (notetaking)
   - *Wikipanion* (Wikipedia)
   - *MentalCase* and *FlashCard++* (flashcards)
   - *Chegg* (study help)
   - *Graphing Calculator* (just like the handheld model, and includes screenshots)
   - *The Chemical Touch* (periodic table)
   - *Instapaper* (stores web pages)
   - *iTranslator* (translations for your language courses)
   - *Dictionary.com* (lots of words you don't know)
   - *BlackboardLearn* (hooks up with your school's course management and grade reporting system)
   - *My GPACalculator* (includes "what if" scenarios so you can fantasize about getting an A in that killer statistics course)

5. **Use e-services.** Try Amazon, eBay, and Overstock for just about any merchandise (Amazon often offers special shipping discounts for students); Priceline, Hotwire, and FLY.COM for airline tickets; CARRENTALS.COM and, at some colleges, Zipcar for car rentals; Netflix and Amazon for streaming movies; and Pandora and iHeartRadio for music.

6. **Tame your phone.** If you're like most students, you'll be spending every waking moment (and then some) on your phone. Be sure to get a plan that offers unlimited web, data, messaging, and e-mail. Not all plans do. And while you're at it, be sure your phone has reception in all the places you're likely to drive to (even if they include Wyoming, South Dakota, or Western Texas).

5-STAR TIP. The major carriers (AT&T, Sprint, T-Mobile, and Verizon) almost always offer student discounts of around 10 percent (at least if your college is on the "approved" list).

7. **Eat in—and pack a lunch.** If you're living in a dorm, by all means eat there—or at some other dorm, nearer to your classes, that will accept your meal plan for lunch. Or have your dorm's food service pack you a lunch. An often-not-very-good lunch that you buy at, for example, the Student Union can easily set you back $15. Why pay twice?

8. **Take your own coffee.** If you're addicted to coffee, get a stainless steel thermos, a burr coffee grinder, and the roast of beans you like best, and make your own coffee to take to class (tea aficionados will want to get a good strainer or infuser; white, green, oolong, or black teas; and a stainless steel insulated mug). Saves four dollars a day or more (really adds up) and will give you a modicum of pleasure as you sit through the otherwise soporific lectures you're stuck in.

9. **Get there in a different way.** Instead of taking your own car, and paying $600 a semester for the preferred, on-campus parking, consider public transportation or, better, bicycling. If you can't give up driving, at least carpool with a friend or two, which saves lots of money and helps you cement your relationship with that friend or two.

5-STAR TIP. **To save on gas, check out WWW.GASBUDDY.COM or buy your gas at Walmart, Costco, or your own local discount station.**

10. **Check your car insurance.** Especially if you live in a big, freeway-laced city, car insurance can be super-expensive. Try to stay under your parent's policy, if you're of appropriate age. If not, ask your insurance agent for a "Student" or "Good Grades" discount (that is, assuming you have good grades). Also, if you're driving only a few miles per day, make sure your policy is rating as "pleasure" driving; your rate will be cheaper.

ON THE WEB. **Be sure to check out web-based insurance companies; for example, 21st Century, GEICO, and USAA (if you have a military background). They're likely to be cheaper than in-person agents.**

11. **Use the facilities.** No, not *those* facilities. We're thinking about the recreational and academic services you paid for as part of your student fees—Olympic-sized swimming pools, Apple-endowed computer labs—not to mention the free tutoring service, writing center, and math lab. And if you're not feeling up to par, or college isn't turning out to be quite the happy experience you expected, be sure to check out the university

health service or counseling center. You've already paid for them, too.

12. **Think about flying the coop.** At many schools first-year students are required to live in the dorms. But after that, you're on your own. Consider living off-campus in an apartment or a cooperative living arrangement. You can often save bundles on food (at many colleges the food service is overpriced and is used as a means to subsidize the expense of the dorms). And hey, you might enjoy playing Rachael Ray, not to mention doing dishes once a month.

EXTRA POINTER. **If you're really serious about saving money, consider adding a roommate—three people instead of two, four people instead of three.**

REALITY CHECK. **It's much harder to get along with three people than it is with two.**

13. **Consider house-sitting.** In many college communities it's possible to house-sit for a professor who has a sabbatical or is on leave for the year—often for free or at a greatly reduced rate. Hey, these profs probably live better than you, so not only can you save a bundle of dough, but you can also increase your socioeconomic standing—at least for a year.

14. **Entertain yourself cheaply.** At many colleges, there are concerts, plays, speakers, cookouts, and all sorts of other events at student prices—and sometimes for free. Check out your college's Web site, student newspaper, or posters around campus for dates and prices. If you're in a big city, you might also find "rush tickets" (last-minute tickets at greatly reduced prices) for wonderful events. And if you're in a college town,

you might be able to work as an usher at concerts in exchange for free attendance.

EXTRA POINTER. **If you're at a big football school and have bought season's tickets (but are not all that eager to go to all the games), you may be able to sell the ticket to the "big" game at a price sufficient to offset your costs for all the other games.**

15. Skip a trip. Travel, especially airline travel, can be very expensive, especially if you want to travel at peak times. If you're a little short on cash—and don't have terribly magnanimous parents—consider forgoing the trip home for Thanksgiving. You'll see your parents in just three weeks for Christmas, so save your $500 and tell your parents to freeze the pumpkin pie.

5-STAR TIP **If you're still dead set on making a trip, see whether you can get a student discount. Some good sites to start with are WWW.STATRAVEL.COM, WWW.TRAVELOSOPHY.COM, and WWW.STUDENTUNIVERSE.COM. If you like surface transportation, it's good to know that Amtrak and Greyhound offer student discounts. And if you're driving, see whether your school has a real or virtual "ride board" where you can hook up with other people driving to the same place.**

16. Join the workforce. At many colleges, there are special work-study jobs to be had. Some of these—like being a museum guard or the checkout person at the college library—have long periods of down time, when you are on duty but can do your homework at the college's expense. And you'll make friends with other student workers.

17. **Travel on their dime.** Wanna see the world? Consider the study abroad program. Many colleges have special scholarships or stipends to enable students to do research abroad or to take courses at "sister" universities. This can be a wonderful opportunity to improve your language skills, to do research in countries where the materials actually exist, and to take courses at colleges where they actually specialize in what you're interested in. (For more information on study abroad, see "Top 10 Myths About Study Abroad" on p. 268.)

18. **Drop early.** Many students procrastinate about everything, including dropping a course they know they're doing badly in and will never finish. At schools at which you're paying by the course (or credit hour), you'll get a much bigger refund if you drop in an early week of the semester. So bail early, and save.

19. **Buy a prepaid debit card.** One of the easiest ways to save money is to set yourself a monthly budget. And one of the easiest ways to set a monthly budget—and stick to it—is to buy a prepaid debit card such as the Vanilla Visa or MasterCard. We prefer the off-the-rack *non*reloadable cards (sometimes called gift cards) available in various denominations at office supply stores (Office Depot, Office Max, Staples), pharmacies (Walgreens and Walmart Neighborhood Markets), and many supermarkets. (Why avoid reloadable cards? They are subject to a very complicated application process, thanks to the Patriot Act, and what's the point of reloading if you're trying to stick with the money you have?)

20. **Hit up your uncle.** Uncle Sam, that is. To some degree, the pain of out-of-control tuition increases has been lessened by a slew of recently introduced tax advantages, including the American Opportunity Credit, and the Lifetime Learning Credit—as well as the Tuition and Fees Deduction and the Student Loan Interest Deduction. Be sure to educate yourself about all of these; then, come April 15, calculate your deduction or credit for each to see which one gives you the maximum benefit (many tax-preparation software packages will do this for you automatically).

ON THE WEB. Very good information about all of these government tax breaks (including family-income caps and other requirements) is available at the Sallie Mae web page WWW.COLLEGEANSWER.COM/PAYING/CONTENT/PAY_TAX_BENEFITS.JSP and at the IRS' own Tax Breaks for Education: Information Center, WWW.IRS.GOV/UAC/TAX-BENEFITS-FOR-EDUCATION:-INFORMATION-CENTER. Gluttons for punishment can read the entire 87-page IRS publication at WWW.IRS.GOV/PUB/IRS-PDF/P970.PDF.

14 Ways to Ensure You Graduate in Four Years

College seems to be taking longer and longer to get through. The average time-to-degree at the (so-called) four-year college hovers at about five years, with only one-third of students graduating in four years and another third taking six or more years to finish. The situation at community colleges is no better: only 50 percent of students graduate within two to four years, while a full quarter take more than four years to complete their associate degree. All those extra years cost money and delay your entry into the workforce. It's not all that hard, though, to complete your program in the traditional four- or two-years if you follow our 14 tips for getting college done on time:

1. **Make a financial plan.** With the sticker price of some private colleges running upward of $40,000 a year and some state schools coming in at about $10,000, it's important to have a firm conception of how you're going to pay for your four years. What combination of gift aid, loans, parental help, and off- or on-campus employment is going to net the amount you need to pay for tuition and room and board? You wouldn't want to have to take time off from college just because you were short on funds. (Besides, realizing how much each year of college is really costing you can be a great motivator in getting you to complete your work in a timely fashion.)

2. **Assess the value of outside employment.** Needless to say, given the cost of college and current economic conditions, many students have to work part- or full-time just to make ends meet. But if you can at all swing it, it's much more time-efficient—and often more financially advantageous—to put all your efforts into finishing your coursework so that you can

more quickly land that real job with a real salary. Weigh the amount you're going to make from that part-time job against the cost of another year of college.

3. **Consider loans.** Even if you didn't take out any loans when you started college, it could be a good idea to borrow money at later stages of your college career. Do the math and see whether it's a good idea to take out small loans now if it means you could get a good job next year—as opposed to two or three years later. Knowing about the job prospects in your major—and how much they pay—will be instrumental in your assessment. (For more information about taking out loans during college, see "Top 9 Tips for Taking Out Student Loans" on p. 272.)

EXTRA POINTER. In some cases you may be able to land a "completion loan" from your parents or some other relative: you promise you'll finish college this year, they lend you the money.

4. **Apply for scholarships and prizes.** In many universities there's a surprising number of scholarships, awards, and prizes reserved for continuing and upperclass students. Check out your major department, the study abroad office, nontraditional students or veterans' office, honors college, or general university financial aid office for details. Often the fellowships are very fine-grained (for instance, for students studying ancient Greek, or food security and economic growth), so if you fit the bill, it can be easy to win.

ON THE WEB. You might also consider fellowships from sources outside your school; WWW.SCHOLARSHIPMONKEY.COM is an excellent source for upperclass fellowships.

5. **Get what's coming to you.** If you've taken AP courses or an international baccalaureate (IB) program, cash in your chips: apply to have these credited to the degree you're working on. Also, consider taking one of the 33 College Level Examination Program (CLEP) exams, if you're especially strong in some field and your college accepts these exams for credit. And if your college allows credit for life experience (for instance, work experience, summer internships, or, believe it or not, political campaigning), claim these, too.

6. **Fight for your transfer credits.** If your current college isn't your first one, make sure you get at least distribution (or core or general-education) credit for the work you've done (in some cases, you won't be able to get credit in your major, since the faculty want you to take those courses at their school). Usually, this will go through pretty smoothly, especially when there are "articulation agreements" in place (see "Transfer Tips—from Community College to Four-Year College" on p. 261 for an explanation of what these are and how they work). But even if your courses don't automatically transfer, don't give up hope. Most schools have appeal procedures that you should use. What have you got to lose?

7. **Consider the eight-semester plan.** Many colleges now offer you the option of contracting for a prepackaged program of courses in exchange for guaranteed places in each of them. If you're 100 percent sure what major you want, the eight-semester plan can facilitate your finishing in four years. The downside? You have to commit to a major before having taken any college-level courses in that field, you must take the courses in the order prescribed, and you have to stick to the letter of the program (there's no leeway to drop a course or to change your major).

8. **Don't set yourself back.** In sequences of courses aimed at developing skills—world (or foreign) languages and math, for example—many students have the strong inclination to start again at the very beginning, even if their placement test shows

that they should enroll in a more advanced course. "After all," they figure, "what's the harm? And I'll learn it better this time." But there's a hidden cost. If you start the sequence again, you're signing on to extra, unnecessary courses and buying yourself more time in college. Not a good idea, if you're planning to finish in four years.

9. **Don't be a serial dropper/adder.** If you drop a class in the twelfth week, you've wasted a ton of time and have no credits to show for it. Avoid this situation either by bailing out when there's still time to add a replacement course or by more carefully researching your choices when you first sign up (see "10 Questions to Ask Yourself the First Week of Classes" on p. 82 for more on sizing up your classes).

10. **Don't double (or triple) major.** If you're serious about getting out in four years, you should stick with one major. Each additional major increases your requirements to the tune of between 10 and 12 courses. Given that the standard course load is between 8 and 10 courses a year, you don't have to be a statistics whiz to see how many years an additional major can add to your time-to-degree.

11. **Don't fail a requirement.** If you're ever in danger of getting the dreaded "F" in a required course, take emergency action to be sure you that you pass. Have a serious talk with the professor to find out what you need to do to pass the class, and then follow the instructions exactly. If you can eke out a D (or in some schools a C), you won't have to retake the requirement and retard your progress.

12. **Use the summers.** Summer is a great time to get in some extra courses and build up some added speed toward completion of your degree. Not going to be hanging around your college over the summer? No problem. Consider gaining credits through online courses or credited internships or job experiences. (For more on the advisability of summer school, see "Summer School Pros and Cons" on p. 264. For more on

online courses, have a look at "10 Tips for Online Courses (and MOOCs)" on p. 154.)

13. **Keep on top of your degree progress.** Many students have their degree delayed after discovering there were requirements they didn't know about. Check in with an adviser regularly to make sure you're on track and haven't overlooked any of the more obscure requirements. Many schools have online checklists or degree planners. Use these and make sure you read the fine print (including any footnotes at the bottom of the page, which can be more important than they might look at first glance—especially when yours is the exception treated in the note).

14. **Consider a five-year dual degree program.** One really time-efficient plan is to do a five-year combined BA/MA degree, which will save you at least a year or two of MA training. You can get these combined degrees in many fields, including economics, public policy, public health, engineering, and world languages. Also, some schools offer combined professional degrees, such as BA/DDS (dentistry) and BA/JD (law) plans. OK, it's not four years, but it's a really fast track into fields that require advanced degrees.

Top 10 Tips for Community College Students

Community colleges are hot: almost half of all college students are enrolled in one. And the 2009 American Graduation Initiative substantially boosted government funding for community colleges, and set the goal of increasing the number of community college students by five million by 2020. So if you're enrolled at a community college—with the idea of either getting a degree or ultimately transferring to a four-year college—well, you're in the vanguard. Here are our 10 best tips for getting started on the right foot:

1. **Figure out why you're there.** Especially at community colleges, where there is a broad variety of students with many motivations for being there, it's important that you figure out what *your* goals and aspirations are and how best to achieve them. If you're looking for vocational training—either to start in a profession or to refine or upgrade your skills at some existing job—it's important that you focus on that. If you're looking in the end to transfer to a four-year college, be sure to take the courses appropriate to that goal. And if you're just taking a few courses out of interest or to broaden your horizons, construct your program with that in mind. There's no "one size fits all" at community college, so be sure to tailor your program to your individual goals.

2. **Know your A.A.S. from your A.A. (and your A.S.).** One distinctive feature of community colleges is that they offer both the Associate in Applied Science degree (A.A.S.) and the Associate in Arts (A.A.) or Associate in Science (A.S.) degree. The A.A.S. degree is a two-year vocational degree, preparing you for a career such as nursing or other health care,

business, criminal justice, fashion, culinary, design and graphic arts, information technology, or paralegal work. The A.A. and A.S. degrees, on the other hand, provide you with basic, lower-division liberal arts coursework that parallels the program a four-year college and prepares you for transfer to that sort of institution. Be sure you pick your track appropriately. Once you start on an A.S. or an A.A. it's very, *very* difficult to shift to an A.A.S. (and vice versa).

3. **Get on top of the "developmentals."** Though almost all community colleges offer open admissions (that is, any high school graduate or GED holder can get in), they also require you to take "developmental courses" (or, as they used to be called, "remedial courses") if you're not up to college snuff in math, reading, or writing. For a nursing degree, for example, you might (in the worst case) have to take pre-algebra, beginning algebra, intermediate algebra, and only then, college algebra. Tip? Start taking your developmental courses right away the first semester, especially if you have a lot to make up. (For more on remediation, see "Facing Up to Remediation: Top 10 Strategies" on p. 149.)

EXTRA POINTER. In most community colleges they'll offer you testing in reading, writing, and math when you enter, in order to place you in the right level course. Don't disregard these results. You won't be happy if you find yourself drowning in a course that's way over your skills level.

4. **Know what transfers.** If you're planning on continuing your education at a four-year college, make sure that all the courses you're taking can transfer. If the course is too easy or is in a subject not taught at the four-year college, you may find that the college won't accept your community college course(s) for transfer credit. Luckily, there are usually agreements in place for which courses will transfer, usually called "articulation

agreements." Look for a list on the websites of both your community college and your prospective four-year college. And when in doubt, ask before you leap. (For more information about transferring, flip to our "Transfer Tips—from Community College to Four-Year College," on p. 261.)

BEST-KEPT SECRET. In most states, the department of education maintains a tool that allows you to see what will transfer. To see one of the best, visit WWW.VAWIZARD.ORG. Then check out the American Association of Collegiate Registrars and Admissions Officers website, WWW.AACRAO.COM (search for "Transfer and Articulation"), for a link to your state's site (worth a careful look).

5. **Expect to attend every class.** One possibly surprising feature of community colleges is that classroom attendance counts a lot in the grade. Sometimes up to 40 percent. That's because professors want to motivate commuter students to make all the classes and, in addition, tend to emphasize in-class learning over homework (because in some cases, working students don't have all that much time to prepare at home). You can really put yourself behind the eight ball if you've missed 16 of the 30 classes—even if you cram before the final and somehow manage to get an A on it.
6. **Prepare to be active.** Community college professors often see the class as an occasion to get the students actively involved in the learning, rather than treating their students as sponges to sop up what the professor is dishing out. Be prepared to participate in discussions, make a presentation, play simulation or role-playing games, design experiments, and in some cases even do community outreach or service programs.
7. **Don't work yourself to death.** Most students at community colleges are both working and going to school. Which is great. Keep in mind, though, that you can't both work full-time and go

to school full-time. And if you're also a parent, that's one more pressure. Make a plan that integrates your work, school, and home needs.

8. **Use the college resources.** One of the best aspects of most community colleges is the broad variety of services they offer. Especially good is the career counseling service—a trained professional (often a counselor, psychologist, or business person with years of experience) can help you find the career that's right for you and will make specific suggestions about courses to take. Be sure also to check out the advising center, writing center, tutoring center, and, if need be, the health and psychological services center. Part of your tuition and fees prepays for the services, so why not make use of them?

5-STAR TIP **One of the facilities you might not have thought of is the learning resource or computer center. Here people will offer you advice about how to recover lost data, how to convert data from one program to another, how to use a spreadsheet, and how to interface with the various college web destinations (registration, grade reporting, course web pages, electronic library resources, and so on). And if you don't have a computer, you'll usually find free computers at which you can burn the midnight oil while preparing your papers.**

9. **Go see the prof.** One of the great things about the community college is the tremendous number of hours the professors are required to sit in their offices to help students: at many schools professors are available, without appointment, for ten hours and up each week. Take advantage of this one-on-one help before the test, before a paper or assignment, and especially when you feel lost in a course (as many students do). The profs want to see you do well and are ready to help you do so.

REALITY CHECK. **At many community colleges, professor-student relations take on an air of informality. But don't think that just because your prof is friendly and nice, he or she wants to be your BFF. It's sometimes good to keep your professor posted on what you're doing in your life. It's another thing to make him or her your confidant for all your problems.**

10. Join the community. Community colleges realize that most students are commuters and don't have the social benefits that they might have at a four-year college. That's why the colleges try to compensate by providing "cohort" programs and "study buddy" programs that will put you in touch with other students taking the same courses. Make full use of these wonderful opportunities to meet students with goals and lives similar to your own, as well as those from different socioeconomic backgrounds, from different countries, and with different life experiences. The melting pot that is the community college is one of the great features of American college life. Make sure that, even if you don't melt in, you join the stew.

10 Best Tips for Engineering School

As engineering enrollment has steadily increased over the past 20 years, more and more students are realizing that engineers are creative problem-solvers who help to shape the future. Indeed, more than one-third of college students today are enrolled in either an engineering or a science program. Before you embark on your journey of discovery, design, and innovation, it'd be good to know how to prepare yourself for the trip. So we asked Bruce Mendelsohn, director of communications and outreach at the Bernard M. Gordon Engineering Leadership Program at MIT, to hit up some of his colleagues and friends—not to mention himself—for key advice on how to succeed at engineering school. Here are their ten best ideas:

1. **Find an engineering discipline that motivates you intrinsically.** Whether you opt for chemical, civil, mechanical, industrial, biological, or biochemical engineering, choose an engineering discipline in which you are genuinely interested. Your major most likely represents your career path, so by all means, be pragmatic—but also remember to follow your heart.

EXTRA POINTER. As you make your way through the intro courses in the various fields of engineering, pay attention not just to the grades you get but also to how much you enjoy (or don't enjoy) working in each field.

2. **Understand the first principles and never simply memorize.** Concentrate on internalizing the first principles of engineering: the basic concepts that lie beyond the problems you're trying to solve. Challenge yourself to describe engineering concepts effectively in layman's terms to your nontechnical friends—after all, you'll have to do so when you

get into industry. A neat party (or bar) trick for engineers is distilling complex concepts into cocktail napkin–sized diagrams and explaining them to nonengineers. (Really. It works.)

3. **Intern with different engineering companies and in different industries.** A three-month summer internship helps you convert classroom knowledge into engineering know-how and gain real-world engineering experience. Try different industries and corporate cultures to see which one works best for you.

5-STAR TIP. Ask around to see what programs are available and the companies where your department has successfully placed students in previous years. Also, if your department has bulletin boards—either physical or on the departmental web page—check them out too. And if you (or your parents) have a friend in the community who's working in some engineering discipline, reach out to him or her. Leverage any contact or relationship that you can.

4. **Network, network, network.** Start making contacts while you're in school as an undergrad and continue to do so after you graduate. The professional network you build during your time as an undergraduate (through your internships, externships, co-ops, professors, advisers, and so on) will complement your paper diploma. Whether online or at career fairs offered by your school, aggressively seek networking opportunities.

ON THE WEB. LinkedIn—not Facebook. Facebook is for fun; LinkedIn is for professional purposes. Also, check out your school's career services website and ingratiate yourself with the people who work in that office—good relationships are key, both on- and offline.

5. **Diminish your digital distractions.** Most engineering students think they're prolific digital multitaskers, capable of answering

the phone, reading, sending texts or email, and listening to music all while doing problem sets. But most aren't as good at it as they think. According to Stanford University research, these activities can negatively impact your ability to retain and accurately recall information. When it's crunch time, study in a quiet environment without digital distractions. And never cram. According to a recent UCLA study, sacrificing sleep for extra study time—whether it's cramming for a test or plowing through a pile of problem sets—is actually counterproductive. Ample sleep is critical for academic success—especially for aspiring engineers.

6. **Be single-minded.** Every engineering school has a required curriculum of introductions to the various areas of engineering: concentrate on doing well in all of them, not just the one(s) you most like. Also, rather than double major—as many go-getting engineering students seek to do—choose one major and pack in as many relevant courses as you can.

7. **Take leadership classes.** It's not enough for tomorrow's engineers to be technically proficient: you must also learn how to lead teams of people with diverse skills, from different cultures and socioeconomic backgrounds. As engineering teams transcend national boundaries and time zones, devote yourself to developing the engineering leadership skills that will help you lead a multinational project or an international team.

BEST-KEPT SECRET **If you know what you're planning to go into after you graduate, and if it essentially involves work in other areas of the world, it's not a bad idea to build up a competence in the relevant language. If you plan, for example to do transportation engineering in Saudi Arabia, you could benefit from knowing some basic Arabic. And don't forget to brush up on the technical terms needed for your field of interest. Lots of people worldwide know some English, but in certain cases you could get a leg up if you can communicate with your coworkers.**

8. **Take courses in majors that complement your primary study.** Knowing more about adjacent systems will help you see the big picture of the design and understand the constraints (or areas of flexibility) that characterize the overall product. For example, if you're an electrical engineer, think about the mechanical packaging requirements of your components, the heat transfer challenges of a design, the interference on sensitive communications or audio circuits.

9. **Take writing classes.** You may have thought that engineering was all numbers and calculations, but when I ask recruiters what attribute they most look for in a new hire, their resounding answer is "writing skills—we have to write about everything we do—we take the engineering knowledge for granted." Rather than avoiding English and communications classes when fulfilling your arts and humanities requirements, challenge yourself to become the effective communicator that employers seek. If you can't communicate in writing, your education can come up short.

10. **Ask, ask, ask.** Although engineers are naturally curious about the topics they're working on, sometimes they're not as curious about other areas. Be actively curious about people not like yourself and about topics unrelated to engineering. Take classes in topics you know nothing about. Challenge assumptions. As an engineering student, you may find it easy to fall in love with technology; however, engineering is about relationships—specifically, between technology and society. Get an engineering *education*, not just a degree.

Top 10 Tips for Applied Arts and Design Colleges

The creativity of designers can be seen almost anywhere you look, from innovative product packaging and apparel design to 3-D characters in movies and artfully displayed cuisines.

For creative people interested in the areas of industrial and advertising design, fashion, media arts, game design and animation, interior design, and the culinary arts, the right mix of education, imagination, and motivation can lead to a fulfilling career—starting with an applied arts or design college (or else a design or arts program at a four-year liberal arts college). We invited Jonathan DeAscentis, dean of academic affairs at the Art Institute of California–Los Angeles, to share some tips about how to succeed at an applied arts college. Here's what he recommends:

1. **Treat class like a job.** For many applied arts courses, the demands of class are intended to mimic industry expectations and collaborative work environments. Prepare to treat your classes and coursework like a job.

REALITY CHECK. Consider how your boss and work colleagues would react if you showed up unprepared and late, or not at all, for a consultation session with a client. Now think of your professor as one such client.

2. **Start your portfolio.** An effective portfolio must demonstrate the skills and knowledge of a student just as well as it represents a student's personal brand and identity. Whether you are a graphic designer, fashion designer, web, or other designer, the key questions to ask (and answer) as you start your collection of work include: "Who am I?" "How am I

unique?" "What artistic strengths do I bring to the project?" "What am I passionate about?" and, most generally, "What is my goal as an artist and creator?" Reflecting on these questions as you assemble your portfolio of creative work will not only keep your work centered on your own identity as an artist but also help you amass the work that is going to go into the portfolio of your work.

5-STAR TIP. Train yourself to talk about your work. A career in any creative art will require you to express—in words and to other people—what you have in mind as a creator. Practice communicating, orally and in writing, what your goals are as an artist and how you think your work manifests them.

3. **Participate and volunteer.** Attend class, join campus activities, and show up to professional clubs and organizations to share your work and ideas with fellow artists and designers. Also, try to volunteer for community service and industry-related events to start showing your work more broadly and to make the connections you will need when you are ready for a job. For instance, budding web designers need to befriend great coders; beginning chefs will do well to connect with savvy restaurant managers; filmmakers will benefit from linking up with visual effects and 3-D artists. Particularly in emerging industries and fields, connections are what help someone put together a team for a freelance project or young company, and they can be instrumental in helping you find work.

4. **Identify a faculty mentor.** Remember that your instructors are experts in their fields, with lots of insight to share. Pick one you admire and seek out a mentoring relationship.

5. **Intern.** To gain real-world experience, develop connections, and grow as an artist, become an intern or look for a job in your field of study—at the best place you can. Search for these openings early, and when you secure the position, give it all you have.

5-STAR TIP **Seek out your campus career center as soon as possible. The advisers there are dedicated to providing local resources and helping you gain valuable work experience. Also, if you know someone in the community working in your field of choice, seek out that person. Often acquaintances outside college feel very warmly when people they know, in a college they know, want to join their team.**

6. **Become financially literate.** Do this right away. It is important to educate yourself on your financial choices and outcomes. Moreover, individuals with creative talents such as graphic design, photography, or video production, for example, also have opportunities to freelance. Consult with your career services department to see what guidance they can offer regarding ad hoc assignments (such as going rates and tax considerations).

7. **Apply yourself.** There are many, many design and art competitions out there looking for emerging talent and student participation at no cost. Keep an eye open for the next "call for entries" and apply. A win or recognition will make for a great work sample for your portfolio and an accolade for your resume. And it'll make you feel better about your work: after all, the contest probably had lots of entries that were judged to be less good than yours.

8. **Be your own publicist.** Don't be shy about sharing your accomplishments with faculty, mentors, and club colleagues. They may pass along your good news and lead you to a great opportunity.

EXTRA POINTER. **If your school or program has a newsletter or does an e-mail blast from time to time, be sure to get your achievement noted. You never know who reads these things.**

REALITY CHECK. **Even when you are still a student, consider yourself a professional and act in a way that reflects well on you. This means being mindful of on- and offline behavior and being respectful of fellow artists and colleagues.**

9. **Stay inspired.** The road to graduation is challenging for many reasons. Even the best designers and artists feel overwhelmed and discouraged at one point or another (indeed, often the most gifted students set themselves the highest standards and are most unhappy when they don't quite live up to them). Remind yourself of your goals and why you are at school in the first place: to earn your degree and continue on the path to reaching your goal, be that becoming an executive chef, establishing your own fashion label, or achieving some other creative success. Then tap the network of students and faculty that you have created for support.

10. **Stay connected.** Don't let all the time and effort you've spent developing relationships go to waste once you graduate. Plan to stay connected with your fellow alumni, mentors, and faculty. Build up your own personal website and/or Facebook page. Sign up for newsletters, collect contact information, connect via social media. And if you have occasion to show your work, be sure to invite all your friends and acquaintances to have a look. Invite them to look at the ads you've designed, the meal you've cooked, the clothing you've designed, or whatever the product of your creative talents is.

ON THE WEB. **To see some lists of applied arts or design colleges, check out HTTP://ARTSCHOOLS.COM/, WWW.ALLARTSCHOOLS.COM/, and WWW.ARTINSTITUTES.EDU/LOS-ANGELES/DEGREE-PROGRAMS/DEFAULT.ASPX.**

The College Student's Bill of Rights

As a college student you don't just have responsibilities; you have rights. But figuring out what these rights are—and what they do and don't include—is often no simple matter. Here's our (semi-) humorous take on what you are—and aren't—entitled to at college:

Article 1. You have the right to annual tuition that is less than the price of a Lexus IS C convertible—at least the one that doesn't come with the HDD navigation system.

Article 2. You have the right to comprehensible, easy-to-fill-out FAFSA and Profile® forms—or at least ones that don't require a PhD from Wharton or Sloan School to get past page two.

Article 3. You have the right to affordable textbooks—that is, if you think $600 a semester is "affordable."

Article 4. You have the right to professors who are basically knowledgeable about the material—just not ones who can hold their own against Adderall in keeping you awake.

Article 5. You have the right to professors who sometimes offer up something funny—just not ones making regular appearances at WWW.COLLEGEHUMOR.COM.

Article 6. You have the right to a professor who dresses neatly and professionally—just not one who never wears "mom jeans."

Article 7. You have the right to professors who don't hit on students—just not ones who rate a chili pepper at WWW.RATEMYPROFESSORS.COM.

Article 8. You have the right to adjunct instructors or TAs who are courteous, friendly, and nice—or at least would be if they were making enough to live indoors.

Article 9. You have the right to a "smart" classroom that is equipped with twenty-first-century technology—just not a prof who has any idea how to use the stuff.

Article 10. You have the right to nod off, zone out, or IM once in a while during lecture—but not the right to play Pocket Rockets on your iPhone right under your prof's nose.

Article 11. You have the right to express your views in discussion section—just not to hold court in your astronomy course on why the moon landing was a hoax.

Article 12. You have the right to an exam with questions reasonably related to what was talked about in class—just not one that covers only the classes you bothered to show up for.

Article 13. You have the right to dispute your paper grade and get a clear explanation of why you got the grade you did—just not to have your grade raised simply because "you paid good money for this stinkin' course." (We've heard this argument more times than we care to remember.)

Article 14. You have the right to get an extension on your paper if you have a serious medical emergency or a death in the family, or you wind up in jail (no kidding, it really happens)—but not if your Internet connection failed just as you were downloading page six from WWW.COLLEGEPAPERMILL.COM (not a real site, so don't bother).

Article 15. You have the right to talk to a professor about the term paper during his or her office hours—just not at 5:45 p.m. on the third Thursday of the month (the one time you can make, given your jam-packed schedule of work, intramural sports, and hooking up).

Article 16. You have the right to a comfortable working environment in which to take your final exam—or at least enough space so that your classmate sitting next to you (who hasn't showered in three days) isn't pouring sweat onto your paper.

Article 17. You have the right to spaces in courses you need for your major—at least *some* time in the next seven years.

Article 18. You have the right to a seamless transfer of credits from a community college to a four-year college—in your dreams! (Get ready for hours of pitched battle when you try to transfer that graphic design 101 course you took back in 1994.)

Article 19. You have the right to a living, breathing professor—if your college hasn't yet discovered the money-saving potential of online courses and MOOCs.

Article 20. You have the right to professors who don't attempt to tell lame jokes—a right you can promptly exercise by turning the page.