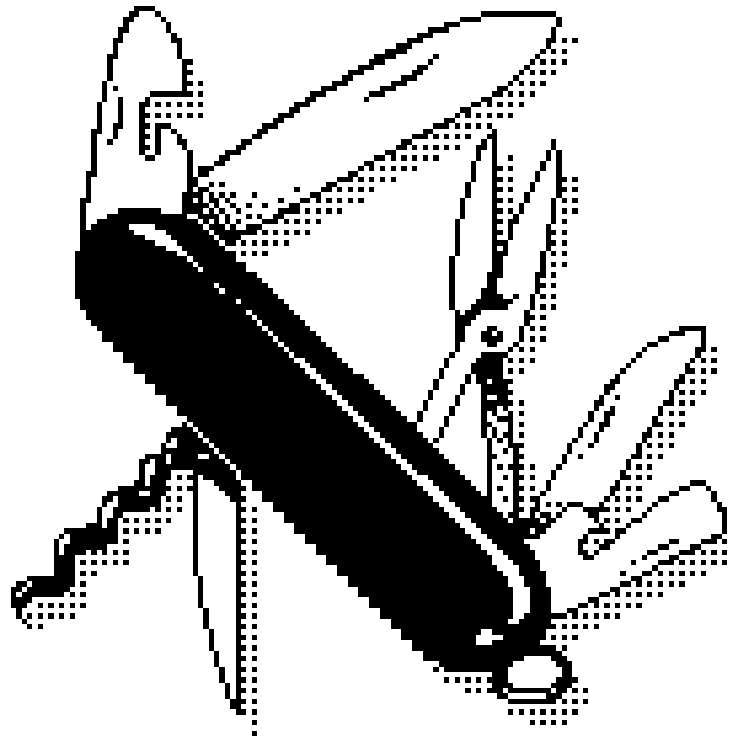

How to Survive My Classes

(or *“How to Learn Most and to Be Rewarded for It”*)



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PREFACE:

"I don't believe I can really do without teaching."

Richard P. Feynman

"We can talk all we want about awards and salary raises, but the real reward of teaching is teaching. The personal satisfaction you get when you do it effectively is just phenomenal."

David Pratt

"If we expect students to be winners and expect them to do well, they will rise to the occasion."

Jaime Escalante

While I had the privilege to be exposed to excellent teachers and will always be grateful to them for the knowledge that they passed on to me, I dedicate this document to my students. To my past students, who had the patience to suffer through my first steps as a teacher, who kindly provided me with feedback on my teaching, and without whom I would not have learned much about teaching. I dedicate it also to my current and future students from whom I expect to learn even more and to whom I hope to be able to give more of myself. Every class provides me with an opportunity to improve my teaching and I am confident that with time I will be a better teacher. This will be greatly facilitated by student feedback about my teaching and suggestions how to improve it.

While striving for excellence requires openness and readiness to revise one's beliefs, my current views on teaching are best expressed by the three quotes above. I truly love teaching and fully agree with Richard Feynman, a great physicist and a great teacher. I could not agree more with my senior colleague in the Department of Chemistry, University of Pittsburgh's, David Pratt, that good teaching is a reward in itself. Teaching well and seeing the effects of my teaching on students gives me as big a kick as a successful research project. He said this to a *Pitt News* journalist in 1994 after having received the prestigious Chancellor's Distinguished Teaching Award, the highest distinction for teaching excellence at the University of Pittsburgh and something that I have looked up to since 1993, when I joined the university. I received the very same award in 2007. I also believe that the inspiring L.A. high school teacher, Jaime Escalante, was very right in his conviction that students will always rise to the level of teacher's expectation. Respecting the students and giving them the best, while expecting them to deliver the best of themselves, are crucial in effective teaching. No matter how indifferent students' behavior is on the surface, I believe that they like to be challenged and they are in college most of all to learn. Students (and young people in general; young in spirit that is!) do not mind working hard as long as they feel that they are making progress and learn useful things.

I gave this document a provoking title "How to Survive My Classes," which suggests a manual or a survival kit. This, along with the picture of a Swiss army knife is obviously a joke — every college student knows how to survive a class. I meant this document to be an informal exposure of my approach to teaching and valuable bits of advice that I found useful as a student and confirmed their usefulness later as a teacher. Since I try to live what I believe in, I hope that reading this exposure will be useful for students taking my classes. Each of my courses has a syllabus, which is a more formal contract between the students enrolled in the course and me. Whenever the two differ, the syllabus supersedes whatever you find here. Whenever something is not covered in the syllabus, the "survival" document is binding. Whenever any of them conflicts with the law or local regulations, I acknowledge the supremacy of the latter.

This document is meant for undergraduate and Master's level graduate students and covers typical university-level class taking. I do not deal here with training for research, which requires learning a different set of skills than attending lectures, performing assignments, and taking exams. These skills simply cannot be learned in a classroom. If you are interested in developing or enhancing your research skills, please get my attention as soon as possible. I am known for no-nonsense individual adjustment of course requirements that facilitate research training. Some of these are: individual assistance in selecting a project topic that fits your research interests, combining your course project with your research project, combining several class projects into one, etc. I also invite you to get acquainted with my research group, the Decision Systems Laboratory, the primary place where my students obtain research training.

BEFORE YOU ENROLL IN A COURSE:

Many students neglect to ask themselves a few basic questions before enrolling in a course. This often results in a painful experience for the students but also for their classmates and the teacher. There is nothing more distracting for a teacher than an unhappy student. Unhappy students are also disturbing to other students in the class, as they do not contribute as much as they should and they lower the level of the entire class. Sometimes, unhappiness of a student may be due to the teacher, but very often it is because the student has enrolled in a wrong course, with a wrong teacher, and at a wrong time in his or her curriculum. Before you enroll in a course, ask yourself at least the following questions. (If you are already enrolled and have not asked yourself these questions, do ask them within the add-drop period. If you missed this and would like to get out of my class, please do talk to me – I will give you my permission to drop the class later in the semester, as long as it is before the final examination.)

- **Do I really want to take this course?**

In what way does this course contribute to my career? What skills will I learn? If it looks like the course will be not useful to me, are there any alternative courses that will fulfill the formal course distribution requirement?

Discuss these questions with your advisor and your senior colleagues. A catalog description may be not sufficient for you to see the relevance of the course to your career. One of the most destructive ideas that I was exposed to in high school was that certain courses will be useless in my life. For example, if I want to study information science, then history, geography, or chemistry will be not very useful and I do not need to study too hard. This is destructive, as you lose the opportunity to learn skills that may turn out to be personally rewarding and useful in your professional career. For all practical purposes, human memory has infinite capacity and there is always room for storing more information. In addition, there is substantial psychological evidence that exposing yourself to various ideas, outside the mainstream of your professional interests, influences strongly your creativity. If a course is required, there are normally good reasons for this. Some university committee, consisting of faculty members, spent painful hours on designing the structure of the curriculum and, take my word for it, making students' lives difficult was never among the objectives of their deliberations. If in doubt, give your advisor a chance to explain you the reasons why the course is included in the curriculum and to justify the relevance of this course to your career. If you are not convinced, explore the possibility of substituting this course with a course that covers similar material and enhances your career in a better way. You can petition the faculty for an exception and, if you have good reasons and support of your advisor, your petition will likely be approved. If everything else fails, let your feelings about the curriculum and the requirements be known by talking to your faculty advisor or to the program chair — if things do not work, they can be changed in the long run but not if the faculty is not aware of the problem. The bottom line is that "getting even" with the school by sabotaging the class experience for your colleagues and your teacher is the worst and most harmful for everybody (including yourself) thing that you can do.

- **Is this the right time for me to take this course?**

Is this the right time in terms of my professional development and the program of my studies to take this course? Have I fulfilled all the prerequisites? Is there anything else that I should learn before taking this course that will amplify my learning?

- **Do I have enough time to take this course?**

How much time will this course require from me? Can I spare this time? If you have not taken any course from this teacher, ask your fellow students who did or simply ask the teacher. Consider the time needed for the course really seriously. It is a fairly robust finding in cognitive psychology that time on a task is the primary predictor of success. I have met students who had a full time job and were full time students registering for more than three classes. While this is not against university regulations, it is not reasonable. I expect that the students enrolled in my classes spend about ten hours quality time per week outside of the classroom. This is equivalent to about one third of a full time load. I believe that other teachers at SIS have similar expectations.

- **Do I want to take this course with this teacher?**

Who is this teacher? Have I taken anything from him or her before? How did I like this? Does this teacher always teach this course? Who will teach this course next semester? Is there any other time in the near future when I can take this course? Very often courses are taught by different teachers and in different semesters. You do not need to take a course from a teacher whose teaching style does not match your preferences. Even if the course is required, you can usually plan your studies in such a way that you take another alternative course or you take the course with somebody else.

YOUR RESOURCES:

Studying in an academic environment differs from studying in high school in that you have to show maturity and independence. Often, however, students confuse it with being on their own and just learning the material on their own from a book. The real value of academic environments is that they bring you in touch with faculty, staff, and doctoral students. Studying in an academic environment has a lot in common with apprenticeship, where skills are learned from your more advanced colleagues. While academic teachers will assume that you are mature and motivated enough to design your own program of studies and you may get less guidance than in a high school, you have many resources that you should definitely not forget about:

- **The instructor:**

Your main resource in a course is the instructor. He or she is the one who designs the class and structures it in such a way that you get the most out of it. The instructor leads the classroom meetings and is usually available outside the classroom. My Email address, telephone and fax numbers, office location, and office hours are listed in my syllabi. Please, make sure that you use me as a resource wisely. Whenever you need it, please visit me during my office hours. If you cannot make it to my office hours, I will be glad to meet with you at another time. Please let me know about your intentions some time in advance — due to my usually busy schedule, I may be unable to meet with you on a very short or immediate notice. The easiest, fastest, most reliable and least invasive way of contacting me is by Email. I read my Email frequently and respond always (response time depends on the urgency of the received Email – mark urgent Email as such). Email works much better than leaving me a message on my voice mail and, as you will undoubtedly experience, I am not that easy to catch by phone.

- **The Teaching Assistant:**

Some of my classes have a Teaching Assistant (TA). In that case, the TA's name is listed in the syllabus along with his or her Email address, telephone number, and office hours. The TA knows the material and he or she is prepared to help you with the course. Use the TA's help wisely.

- **Your colleagues:**

One of the most valuable resources in an academic environment are your colleagues. CourseWeb, which I always use, facilitates class communication. I encourage you to write down the telephone numbers of at least three of your classmates on the resources page of the course syllabus (there is space provided for this purpose). Please, make sure that you approach as many of them as you can and write down how to reach them in case you miss a class and need to ask a question. Make friends with several of your classmates as soon as possible.

- **Libraries:**

Professionals are expected to know their way around libraries. Sometimes, especially in research-oriented courses, such as doctoral seminars or even in course projects, you are expected to find references that will help you in your work. Even though the Internet has taken over many of their functions, libraries and librarians remain great resources – please make sure that you know how to use them.

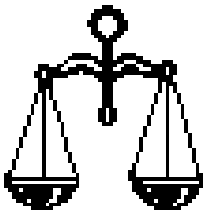
MY APPROACH TO TEACHING:

"I never did anything worth doing by accident, nor did any of my inventions come by accident. They came by work."

"Genius is one per cent inspiration, ninety-nine per cent perspiration"

Thomas Alva Edison

Teaching and learning:



One of the most rewarding experiences for a teacher is to see the students achieve the main goal of their pursuits — knowledge. Still, the teacher's role in living through this experience is quite limited and the responsibility for gaining knowledge in the academic environment rests entirely on the student. The role of a teacher in the students' pursuit of knowledge is merely supporting and guiding. I am a facilitator here. I am providing you with a framework to work and learn. I am determined to give you the best of myself, but the effective amount of support that each of you will get from me depends directly on your own investment. Your effort is the main factor in your success: if you care about learning, your time spent in my class will be well spent (my time spent with you will be well spent too). We are all sharing the responsibility for making a course work and making it truly a learning experience.

Classroom meetings:



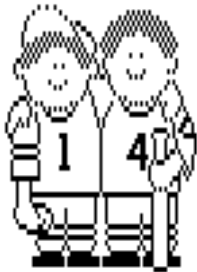
In my experience, both as a student and as a teacher, class attendance is one of the strongest catalysts for success in learning. Students who skip classes are seldom successful. Coming to class stimulates timely reading of the material and helps you to be up to date on what is happening in the course. Our in-class discussions and exercises will be an important factor in your learning. Understanding difficult parts of the material on your own may often cost you a multiple of what it takes in class. Students who must miss an exam or class due to religious observances should notify me ahead of time and make alternative arrangements.

In class activity:



Your in-class activity is crucial in making a course successful. By activity I mean attending classes, participating in class discussions, asking relevant questions, volunteering to provide answers to my questions, volunteering to solve problems at the blackboard if prompted, and providing constructive criticism and creative suggestions that improve the course.

I reward in-class activity with up to additional 10% of the total score when determining your final grade for the course. This is in addition to the total possible score, so in theory you may get a perfect grade without even showing up (in practice, I believe this to be a purely theoretical possibility). On the other hand, it is only 10%, so activity alone will not bring you far – you need to study hard and do well on the assignments, projects, and exams as well. The additional 10% may be especially helpful in lifting your grade up if your score falls between two grades. I reserve the right to assign my 10% in any way that I find appropriate. Please do not be surprised if you get a different grade than your classmates whose performance you judge to be similar to yours in terms of assignments and exams – this may happen due to my subjective judgment of your class participation and lifting one of you in your grade.

Class rivalry:

It is often the case that students view each other as competitors for good grades. I strongly believe that there is no reason for doing so. Your classmates of now will be your colleagues of the future. Friendships that you build during your studies will last throughout your professional career and often well beyond it. Students enrolled in my classes should feel members of a team that is working towards the same goal (pursuit of knowledge), and collaborate rather than compete.

It is allowed and advised to discuss the material, the project, and the assignments with each other. In fact, most assignments in my classes involve group work. Do as much as you can alone to develop independent thinking, but do not hesitate to ask questions of your colleagues. Never refuse to help your classmates. If all students learn a lot, all can end up with excellent grades. The performance of your colleagues will be synergistic with your performance — by doing well they will help us all to create a learning experience and indirectly help the whole class to do better.

Team work:

One of the most important skills that you need to learn is working in teams. This is what you will need to do whether you work in science, business, or industry. Most employers who hire our graduates are looking for team players rather than lone workers, even if the latter are very skillful. Being a team player is a good idea in your professional life.

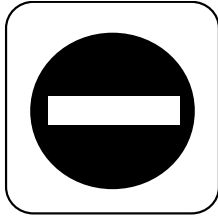
I encourage you and often require from you to organize in small teams for the purpose of assignments and projects. If you really are a lone worker, I will reluctantly allow you to work alone with a warning that it is not good for you in the long run. I am so positively predisposed towards group work, that a simple argument will make me agree for teamwork even where I normally expect individual work. (This does not hold for exams though, which I am afraid will always remain individual works ☺.)

Teams are usually formed during the first class meetings. When forming a team, try to ensure that it is sufficiently diverse to allow a variety of approaches. Minority views are especially valuable in team work, as these often challenge popular but not necessarily right opinions and beliefs. It is a well-established fact in the domain of decision support that heterogeneity of a group directly and positively impacts the quality of its decisions. Each member of the team carries the responsibility for the success or failure of the entire team and normally the entire team earns the same grade. In case of clear disproportions among individual members' contributions, team members may always evaluate the contribution of each of their colleagues in the team to the final result and I reserve the right to re-assign grades within a team in case of obvious unequal contribution (as indicated by other team members).

Haggling about your scores:

Haggling about grades does not happen often in my classes, but I would like to express my view on this topic to avoid possible surprises: Increasing your grade because "you need it" is out of the question.

As far as your work is concerned, it will be graded either by a TA or by me. Even though we will try to evaluate your work thoroughly and fairly, we are human and may make a mistake. If you believe that there is an error in grading your work, please write a note explaining the problem and pass it to the grader along with your assignment. We will look at your work again and return it to you with a revised score (usually within a week).

Academic integrity:

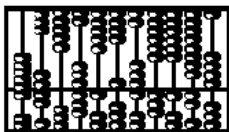
There is a thin boundary between collaboration, allowed and stimulated in my classes, and plagiarism. Remember that whenever you turn in your work, you are placing your name on it. This certifies that you are the primary author of the submitted work (group assignments have the names of all members of the group and all members of the group carry equal responsibility for any possible breaches of ethics!) and I assume that the submitted work is expression of your original ideas. Even if you have discussed your work with others, you should not have copied it from others or let others copy your work. Violations of this policy go against the spirit of academia and, if discovered, will be treated with the severity that they deserve.

It is your responsibility to familiarize yourself with generally accepted practices governing acknowledgments, quotations, and citations of resource materials. In case you believe that another individual made a substantial contribution to your work and he or she is not a co-author of your paper, do not hesitate to acknowledge this as a professional courtesy. Examples of that can be found in many scientific papers. For a nice summary of generally accepted practices, please see style manuals published by the American Psychological Association (<http://www.apastyle.org/>).

Academia is one of the least scoundrel-proof environments around – it is not that hard to cheat if one really wants to. It seems that a student can swing his or her way through the semester relatively easily in an academic environment when he or she is "smart." It is a very short-sighted kind of smartness, though, and even if not caught by teachers, it will turn against the perpetrator in the middle-term (exams) and long-term (further professional career).

Experience shows that people who cheat belong to one of the two groups: (1) they lack the brains to do the work themselves, and (2) they are too lazy to do the work. In my career as a teacher, I still need to encounter a person of the first group – I believe that everybody who has made it into college is smart enough to handle the course load. Cheating, in my opinion, is primarily a sign of laziness.

I understand that due to external circumstances you may be occasionally not able to do your work in time. We are all humans and it happens to each of us that we sometimes fail to finish something. Rather than cheating "this one time" and running the risk of being caught, or a much worse risk of losing your innocence (we are formed by the decisions that we make), please talk to me before the deadline. If this does not become a habit (i.e., if this is not a permanent lack of planning on your part), I will be glad to grant you a small extension so that you can do the work yourself.

Calculation errors:

Students often worry about the impact of calculation errors on their grades. While calculation errors will impact your grade negatively, my belief, and the resulting grading practice, is that calculation is not something that we do best and the approach to solving a problem and the resulting insight are much more important than the actual numbers. If your approach is correct, your loss will not be large. Furthermore, if a question is based on the outcome of a preceding question, I start every time afresh and do not count errors resulting from errors that have previously been pointed out.

I do warn you, however, to make sure that the numerical result that you obtain makes sense. Even though I am very understanding towards calculation errors, I am less tolerant towards answers violating mathematical axioms, physics, or common sense, such as a probability outside the interval $[0,1]$, or a negative calculated length of a physical object. It is your duty to perform a common sense verification of your answer.

Shortcomings in your preparation:

I am usually easy with letting students register for my classes, even if they formally have not fulfilled the required prerequisites. My assumption here is that you need a lot of freedom in shaping your career and that you are mature enough to judge whether you can catch up to compensate for your shortcomings. When you register, however, I assume that you have made a conscious decision to compensate for the possible shortcomings in your preparation and that you will do it as soon as possible, preferably before the semester starts. Except for perhaps some minimal guidance in your study, I will give you no preferential treatment.

Sometimes students approach me with a worry that they know much less than their classmates. I strongly believe and have plenty of empirical evidence supporting my belief that starting from a somewhat less privileged position does not imply poor performance. In fact, most successful students often turn out to be quiet, hard workers and not vocal individuals bragging around about their abilities. It is a fact of life that your preparation will differ from the preparation of other students in the class. Do not worry too much, but do work hard. If you work hard, there is no doubt that you will catch up with even the best prepared. Remember the fable about a hare and a tortoise?

Your concerns:

It is very important that you let me know your concerns about any aspect of a class as soon as they arise. Your concerns may be suggestions for improving the class, for organizing it better, but they may also be, for example, hints that you are not comfortable with discussing a given topic. Please send me Email, call me, or talk to me in person (e.g., during the break, after class, or during my office hours). If you believe that the problem warrants a class discussion (use your judgment) feel free to speak up in class. If you feel shy or embarrassed to talk, write. You can leave a note for me on the table before the class, put it in my mailbox, or slide it under my office door. I will accept anonymous notes (you can type them in order not to disclose your handwriting) and treat them seriously, as long as they are sincere and constructive. Please, make it clear whether your remarks express your personal opinion or perhaps the opinion of a larger group of students (let me know how many/what proportion of the class). Also, indicate whether and how you would like me to respond to it (in private, in class, by Email to everybody, etc.) and whether you prefer to remain anonymous.

Calling me:

Students often ask themselves how to address me. A simple and quite acceptable form of addressing me is by my first name (*Marek*). If you prefer, you can address me by my last name, but the catch here is that you will have to learn to pronounce it correctly and add the luggage of my correct title, which is *Dr. Druzdzel* or *Prof. Druzdzel*. My last name is not easy to pronounce, but I have created sound files on my WWW home page that can help you. If titles is what you like using, both *Professor* or *Doctor* are fine, but the catch here is that you will need to use them with my last name (this means that you will need to learn how to pronounce it!). The reason why I'm explaining this is that I sometimes hear *Prof. Marek* or *Dr. Marek*, which are cute but a little odd.

ORGANIZATION OF MY COURSES:

Course syllabus:

A syllabus is a contract between my students and me. Its rules and regulations are binding for all of us. Occasionally, however, a need arises to modify or update this contract. In such cases, I will notify the class in writing of the changes (Email or a CourseWeb announcement constitute notification in writing).

Course schedule:



Each syllabus includes a course schedule. The schedule is meant to help you in planning your work. It tells you what major parts the material can be classified into, what each class meeting is about, what you need to read before the class, what assignments are due, when the exams will be, and what the project milestones are. It is helpful in planning your work if you have other exams and deadlines in the course of the semester. Please, allow me for some flexibility in the schedule — it may occasionally change when we advance faster than planned or encounter exceptional difficulties with the material.

Reading:



In addition to a textbook, many of my courses have required readings composed of journal articles or individual book chapters. I make them available in form of a three-ring binder that can be used in the lounge area of my lab (Decision Systems Laboratory). Please be courteous to your classmates who want to use a different part of the binder at the same time as you, but try to keep the binder in a good order.

Reading assignments are usually listed in the course outline. Not all of them are equal — some will deserve great care, others can be skimmed. I usually try to give you some guidance before each class, but if you are ever in doubt, please ask. Occasionally, when the material is easier, we will not cover it in class. You are still expected to be familiar with it.

Since my courses are often built around class discussions, you will need to keep up with the reading in order to learn. If you let your reading slide, you will soon find yourself hopelessly behind. The time spent before each class is usually amplified by the class meeting and pays off generously in terms of your knowledge.

I reserve the right to call on you whether or not you raise your hand on the assumption that you have come to class prepared. I may also abort a class meeting if I feel that students are not prepared. In such cases, we may either try to schedule another date or have the class perform an additional substantial homework assignment that will be a substitute for the lost class.

Presenting your work:



In some of my classes, you will be expected to give short, typically less than 20 minutes, presentations of your work or papers selected from a list of readings. The presentations are graded and you will also receive anonymous feedback on your presentation from the audience. To provide you with a checklist of things important in an oral presentation, I have attached the feedback form to this document. The presentations are meant to be exercises in public speaking, important for your professional career, whether this will be in business or academia. Try to make your presentation professional. All classrooms are equipped with a projection panel, so you can prepare your presentation in PowerPoint and project it on the screen while you speak. If you need help in designing your presentation, please ask and I will be glad to meet with you individually.

Office hours:

Teaching is just one of my many responsibilities and it is a fact of life that I am usually very busy. On the other hand, motivated, hardworking students are high on my list of priorities. I will try to make time to meet with you individually and I encourage you to visit me in my office, but I would like to ask for some courtesy on your part. Interruptions, especially those that come when I am working on a completely unrelated topic, are very costly. To protect me from such interruptions, I have scheduled office hours. You are welcome to come to my office at any time during these hours. If you need to meet with me at a different time, please let me know that some time in advance (for example, by sending me an Email message or by talking to me after class) and I will usually be able to accommodate you.

First and last class meetings:

The first and the last class meetings in my classes are somewhat exceptional and both are partly social events. At least a part of the first class is devoted to organizing the semester, learning each other, forming project teams, etc. At least a part of the last class is devoted to summing up the course. In a slightly informal and relaxed atmosphere, we summarize the material and talk about the contents of the class. If there is a term project in the course, I also announce the winners of *Marek's Best Project Award* competition and have the winners present their projects. Finally, we talk about the class and things that worked and those that did not.

Assignments:

Assignments are for you to help you to work systematically, help you to practice the material covered in class, and help me to identify those parts of the material that you have difficulties with. Assignments are usually done in groups of two or three students, formed during the class meetings. The assignments have to be turned in on time, and all members of the group are responsible for meeting the deadline. In your assignments, be as brief as possible (but not briefer!). I prefer that you submit handwritten assignments, but I require that your handwriting is reasonably readable. If you want to use a typesetting or a text processing system, let it not be in your way to do a good job in terms of the contents. If handwriting (as opposed to typesetting) saves you time, spend the time saved on improving the quality of the contents.

Programming assignments:

Major learning tools in some courses are programming assignments. In programming and related disciplines, such as data structures, they are the best, if not the only, way of practicing the material covered in class. There are usually several programming assignments of varying complexity and credit, distributed by Email and due a week or two weeks later. Submission of programming assignments is always electronic (CourseWeb). Documentation should be included in your programs as comments.

Computer use:

Laptops, tablets, and any other computer devices may be used only for class-related purposes (e.g., taking notes or gathering information relevant to the lecture or discussion). Any other use of your computers is inappropriate.

Cellular phone use:

Your cellular phones should be silenced for the duration of the class meeting. You should not use them for browsing the Internet (see computer use policy above), reading or sending text messages. If you receive an emergency call during the class meeting, you may answer it but you should exit the classroom for the duration of the call.

Deadlines:

All assignments and projects have to be turned in on time (usually not later than beginning of the class on the due date marked on the course schedule). In case of group projects, all members of the group are responsible for meeting the deadline. The entire group is responsible for the submitted content. An explanation "John did not get his part to us on time" is not acceptable. Dividing the assignment among the group members is a purely internal matter. In the unlikely case that the entire group is unable to complete the assignment in time (e.g., a sudden medical emergency involving the entire group), hand in the assignment as soon as you can along with a written note explaining why your assignment is late. If you have an acceptable excuse, the assignment will be graded.

Given that unforeseen circumstances happen to each one of us now and then, I will allow a one-time amnesty for turning in your assignment late. Please do get in touch with me in advance in case you are approaching the deadline and cannot make it.

Term project:

A major part of the training that you will receive as part of many of my courses will result from performing a project. The project usually involves solving a real problem and gives you an opportunity to apply the techniques learned in the course (although, depending on your problem, you may have to read some portions of the textbook before they are covered in class). The description of the project is usually attached to the course syllabus.

I advise you to start working on your projects as soon as possible, as they usually involve a considerable amount of work. To help you in planning your semester, I often include two additional deadlines: project proposal and mid-semester progress report.

Sometimes, you may be expected to submit written weekly reports of your progress towards the term project. These can be brief, but they should state clearly what you have accomplished in that week.

The deliverables are usually a project proposal, a mid-semester progress report, and a final report. The due dates are marked on the course schedule. Your project reports should be professional and as brief as possible (but not briefer!).

Aim at excelling in your projects. They are usually very synergistic with your studies and your overall success in school and beyond. Past students in my classes have successfully developed their projects into publications or into springboards to obtain funding for their studies from outside funding agencies. A project could be a good start to winning a best paper award prize in one of the school's competitions. It is easier and more rewarding to excel as a student than as a "grown-up" professional.

To help students involved in research projects, I explicitly allow and encourage combining class projects with research work done with your advisor or with projects in other classes. In both cases, you need to be explicit about it, notify all involved parties in advance, and aim at performing a respective multiple of work.

Marek's Best Project Award:

Classes with term projects have typically an ongoing competition for *Marek's Best Project Award*. The best project in class (as judged by the founder of the award) is awarded a doughnut and a cup of coffee (or a comparable drink of the winner's choice) for each member of the winning team along with an accompanying certificate. The evaluation criteria for the award as well as for grading your projects are: organization and planning of your work (as expressed by your proposal and mid-semester progress report), soundness, creativity, and, finally, clarity of your writing and expressing your ideas.

Exams:

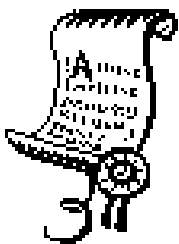
Most of my classes have one midterm exam and one comprehensive final exam. The exams are given on the days indicated on the course outline. Please, make a note of these days, as no makeup will be given. My exams emphasize understanding, not memorization. Understanding, as I understand it, includes the ability to synthesize newly learned knowledge and apply it whenever appropriate. Even though this requires much more work on my part to remain fair and at the same time challenging, most my exams are open book: You may bring your textbook, your notes, and whatever other material you may find useful. Occasionally, an exam may be closed book, but even in this case I allow you to bring a page with notes (can be double-sided) for most important formulae and facts that you would have to memorize otherwise. In those cases, the notes have to be handwritten by you. My courses are usually designed in such a way that your score on the exams contributes significantly to your grade and you need to do well on the exams to do well in my classes.

I believe that exams are an excellent learning experience (please note how intensively you are typically involved with the material during an exam) and try to design them in such a way that they cover important parts of the course and are integrative with respect to the material. The exams are not hard, provided that you are systematic, active in your studying, doing the readings, and solving the assignments.

Time load:

Our classroom meetings are designed to give you an opportunity to clarify those issues that you did not understand in the readings, to reinforce the things that you did understand, and to help you with developing a "big picture" of the material and a critical view of the issues involved. There exists substantial empirical evidence that the actual learning takes place outside the classroom. It is important that you consider the time load that this requires from you and, in case you cannot afford it, drop the course.

I try to structure my courses in such a way that they require around ten hours quality time outside of class for every class meeting. Part of it is needed to do the readings and a part of it is needed to do the assignments. If you keep up with readings and do the assignments well, you should not need much extra time to prepare for the exams. The term project, if there is one, should normally demand between twenty and thirty hours of quality time. The actual load will vary, of course, depending on your background and preparation. If, for example, your knowledge of elementary high school or college mathematics is rusty, or you are not too strong in programming, you may need more time.

Grading:

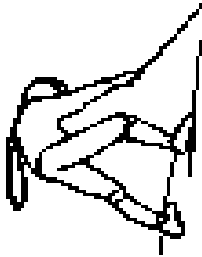
Usually, around fifty percent of the grade in my classes is based on the exams. This ensures a standard and reasonably objective measure of your learning. I normally allow the other fifty percent to be gained through assignments and project work so that people who are not too good in taking exams can still do reasonably well. On the top of this all, you can obtain up to 10% of the total score for in-class participation (described earlier).

The grade will depend on the points that you have earned in the course of the semester. While I would like to allow myself some flexibility in grading, the following may give you an idea about my expectations:

Performance between	91%	and	100%	A	
"	"	81%	and	90%	B
"	"	71%	and	80%	C
"	"	51%	and	70%	D
"	"	0%	and	50%	E

Random grading:

In some large classes that have no TA, I may be physically unable to grade all submitted assignments. While all students will receive their work back with an example solution, only a pseudo-random sample of all submitted assignments will be graded. The pseudo-randomness (as opposed to true randomness) is due to two rules: (1) all assignments that are not turned in will be graded and will obtain grade zero (note that this cannot be made up for and also that it may bring down your score significantly), and (2) a random sample of those that are turned in will be graded (there will be no randomness in grading the randomly selected assignments ☺). Your total score for the assignments will be extrapolated from the assignments that were graded.

Students with disabilities:

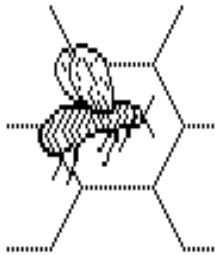
If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both the instructor and Disability Resources and Services (DRS) as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for the course. DRS office is located in 216 William Pitt Union and can be contacted at 412-648-7890 (Voice) and 412-383-7355(TTY). A comprehensive description of DSR services can be obtained at <http://www.drs.pitt.edu/>.

Computer use:

In all of my classes, most of the communication between my students and me is electronic and you will be expected to use electronic mail on a daily basis. If there is a term project, you are expected to use a text processor or a typesetting program to compose project reports. A calculator may prove handy in doing your assignments and during the exams.

GENERAL ADVICE:

The value of working hard:



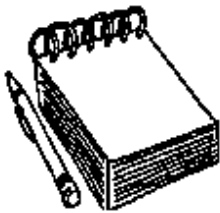
Several paragraphs in this document make it clear that I value and encourage hard work. Essentially, I believe that most, if not all, things that are of any value come by hard work. While you may be lucky here and there, only a strong commitment and thorough, hard work lead to lasting success.

Reading assignments:



Knowing how to read and how to learn the material on your own are important skills that you will use throughout your professional life. Most effective learning involves a combination of both individual reading and participation in class meetings. Reading helps you to see individual trees; the class meetings give you a view of the forest. Comparing what you have learned from a textbook to what the instructor has learned from it is often enlightening. It is, therefore, important to do the readings before the class. If there is too much reading or the reading is too difficult for you, try organizing a reading group — I always found it useful in my studies.

Note taking:



My advice is: do not take notes during the classroom meetings or take very short notes to remind you the main points. The justification for this advice is that there is robust psychological evidence that higher level human thinking is essentially serial and we are not too good at doing more than one thing at a time. You can either actively participate in class or take notes. Active participation makes you learn a lot in the classroom and this will save you a lot of time at home.

If you are a note taker and have already worked out satisfactory ways to take notes, stick to them. If you did your readings well, you will recognize what is important in the lecture and what is worth writing down. Write down only the most important things. Also, if you take notes, it is important that you use them. Writing things on paper is only the first step in learning from lectures. Review them soon after class, try to compile out the most important concepts. Underscore the important ideas; add titles to different parts of the classroom meeting that you have identified. Test your understanding and write down questions that you would like to ask in class. Sometimes it helps to write a few sentences summary of the class. Also, go back to your notes before the next class — it will help you to follow the flow of the course.

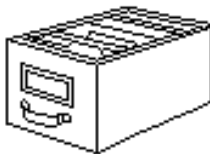
Questions:

Try to write down the questions that arise in your mind during your reading or working on your assignments. You will have an opportunity to raise these questions during class meetings. There is no way everything can be covered in class. Your questions are the best form of feedback that you can provide me with and guide me in adjusting the profile of the class meetings to your needs. I will periodically prompt you for questions, but please feel free to interrupt me at any time with questions that require immediate attention. Do not be afraid to ask questions that may seem crazy or silly at first. Do not assume automatically that "father knows best" when something seems counterintuitive in your readings or in the lecture. Ask yourself "why?" and if you cannot give yourself a satisfactory answer, bring your question to class. It is really important that you do the readings before the classroom meeting. Even if the material is difficult, try to get as far as you can before the class. Critical reading is a skill that you have to develop during your studies.

One remark on questions asked by Email. If I judge the question to be of general interest, I usually broadcast my answer along with excerpts from your Email to the entire class. If your question is of personal nature and you want to be sure that I do not resend it to the other class members, please say it explicitly at the beginning of your Email.

Assistance in debugging:

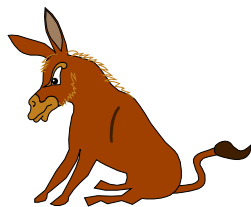
It is as predictable as the sunrise tomorrow that in case of assignments and projects involving programming you will encounter problems with compiling and running your programs. Most of the time you will be able to solve these problems yourself by looking up the correct syntax of an instruction in the textbook or by comparing what the program did and what you thought it should do based on your code, the output file, and the error message. 99% of the time the information that you need to figure out what is wrong is in there in form of the error message, the line number where the error took place, the variable name, etc. If you cannot solve the problem within half an hour, there is little chance that the next half an hour will help and you may be better off either by taking a break and coming back to the problem later or by seeking help. The best and the most readily available resource are the members of your team and your classmates. It really helps to explain to somebody what is happening and what is supposed to happen. You will often get an enlightening experience during this explanation and, if not, your friend will be usually able to point out the things that you did wrong. In the rare cases when a quarter of an hour session with your friend does not solve your problem, try a lab consultant or come to my or the T.A.'s office hours. These are usually spread over all days of the week. It is important that you plan your work well and start working on your assignments as early as possible. Starting a few days before the deadline is an excellent recipe for a stressful and time-wasting experience.

World Wide Web pages:

You probably know well how to find information on the World Wide Web. One thing that you should not forget, however, is that we have quite an elaborate local site for the School of Computing and Information. You can find listings of all faculty members, courses, and curricula. Many teachers, like me, put their syllabi in electronic format on the web. Make sure that you learn what is available locally.

A FEW REMARKS ON ATTITUDE:

Trust in your teacher:



It happens sometimes to probably all of us that a thought crosses our mind that we are smarter than somebody else. While this may be indeed the case, my life-long experience has taught me that thinking so is very dangerous. If it ever pops up in my mind, I try to kill it as soon as I can. I strongly believe that everybody has things that he/she knows very well and you can learn something from everybody. To my amazement, when I was a student and occasionally later when I was already a faculty member, I encountered students who thought that they knew more than their teacher on the topic of the class. While this might theoretically have been the case, in the particular domain of specialty of the teacher great odds were against those students.

A student cannot expect to learn from a teacher whom he or she does not trust. My advice (I am not limiting this to my classes!) is that if you think that you cannot learn anything from your teacher and you do not trust him or her, do not gripe but rather drop the class. If you do not trust any teacher in the school, change the school. If you do not trust any teacher as a matter of principle, do not go to school at all.

Being smart:



Please, note that how intelligent you are is not a consideration in grading. Willingness to work, to master the material, and to be able to apply the methods learned in class to real life are the objectives. Intelligence may gloss over a lack of these, but intelligence alone will not be enough to achieve the objectives and to learn a passing grade. One absolute requirement for even an average grade in my classes is a commitment of your time and energy — sleeping through classes or skimping on the effort that you put in will result in an appropriate evaluation.

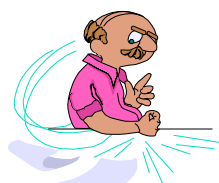
Being a good colleague:



In case nobody has told you this, it is a good idea to be a good colleague for your fellow students. In addition to ethical considerations, there are good practical reasons for being a good classmate. As somebody in a biology lab has once put it, *"if you are a good colleague, you will not need to be afraid that somebody pisses in your cultures when you are not in the lab."*

If you are a team player, you will not need to know everything - you will be able to ask questions of your colleagues and they will gladly help you too. In your after-the-university life, you will be able to rely on your college friends. Rather than storing all the knowledge in your head, you will be able to just call on your friends who may have in the meantime grown to be experts in the field of your inquiry.

Are students customers?



A growing number of students are saying that they are university's customers and should be treated as such. While there are certain comparisons that can be made between buying a car and buying education and a student may rightly expect quality in return for his or her tuition money, there is a basic misunderstanding in the customer-centered view of education.

Tuition money is not buying education – it is only buying an opportunity to learn. It is up to the student how much education he or she will gain given this opportunity. While paying tuition money entitles a student to quality resources, it does not buy the right to do well on exams and to earn a passing grade. How well a student will do depends on how much he or she is willing to invest in learning, it depends critically on his or her active participation in learning. No amount of tuition will relieve a student from this duty.



Oral presentation feedback form

Speaker: _____

[Please score on a scale from 0 to 100 the degree to which the following sentences are true:]

1. Substance

- | | |
|---|---------------|
| a. The speaker knew what he/she was talking about. | Score: |
| b. The speaker explained new and difficult terms and concepts as needed. | Score: |
| c. The speaker covered the material comprehensibly. | Score: |
| d. It was easy to follow the essence of the talk, even though some details might have escaped me. | Score: |
| e. I have learned useful things from the talk. | Score: |

2. Organization

- | | |
|---|---------------|
| a. The talk was well organized and progressed logically and understandably. | Score: |
| b. The talk was well timed and has completed within the allocated time. | Score: |
| c. The visual aids were appropriate, well prepared, and useful. | Score: |

3. Style

- | | |
|---|---------------|
| a. The speaker kept contact with the audience throughout his/her talk. | Score: |
| b. The speaker managed to attract and keep my attention. | Score: |
| c. The speaker's voice was understandable, well modulated, well intoned, and loud enough. | Score: |
| d. The speaker's language use was very good. | Score: |
| e. The speaker handled questions from the audience adequately. | Score: |

Overall score (on the scale of 0 to 100)	Score:
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Comments and suggestions for the speaker to improve his/her presentation skills (continue on the reverse, if needed):