
CSC 100

The Beauty and Joy of Computing

Success in College

or...

Toto, I have a feeling we're not in high school any more.

Notes for CSC 100 - The Beauty and Joy of Computing
The University of North Carolina at Greensboro

Upcoming deadlines / expectations

Starting today:

- Start reading Chapter 1 in "Blown to Bits"
- "Reading Reflection" due in one week: Monday, Aug 28

Before Wednesday class:

- Read two articles linked from the Readings section of the class web page
 - "What is Computer Science? Efficiently Implementing Automated Abstractions"
 - "A Commencement Speech for Graduating 2013 CS Majors"

Can start: Doing pre-lab work for Friday

Random College Advice 1

You are responsible for your own learning.

Typical high school week: 35 hours in class, 5-10 hours homework

Typical college week: 15 hours in class, 30-45 hours "homework"

From UNCG Undergraduate Bulletin: "In general, students should plan to devote between 2-3 hours outside of class for each hour in class."

This is not just more high school! "Homework" is not just for practice, or reinforcement - it's a primary way you learn!

Related to this:

High school attitude: If it was important, the teacher would have said it
College attitude: Important things might come from outside readings

"Whatever be the qualifications of your tutors, your improvement must chiefly depend on yourselves. They cannot think or labor for you, they can only put you in the best way of thinking and laboring for yourselves. If therefore you get knowledge, you must acquire it by your own industry."
- from the 1792 dedication of New College, London.

Follow-up to "Advice 1"

Figure-it-out Question:

High school: Grimsley High School has 56 minute class periods (who thought that up?!?), five days a week. Each semester has two 9-week grading periods. How many hours are you in class in one semester?

College: UNCG classes meet either 50 minutes for 3 days a week, or 75 minutes 2 days a week. A semester is 14 weeks long. How many hours are you in class on semester?

Use whatever resources you have available to you here: talk to other students, use a calculator, whatever... Let me know when you have an answer.

Follow-up to "Advice 1"

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College: UNCG classes meet either 50 minutes for 3 days a week, or 75 minutes 2 days a week. A semester is 14 weeks long. How many hours are you in class on semester?

Answer:

High school semester has 84 hours "contact time"
College semester has 35 hours "contract time"

Now consider: A college class will cover material that would be covered in 1.5 to 2 high school semesters.

Take-away: You do most of the learning on your own time!

Consider the Data...

On the student survey, students were asked how strongly they agree/disagree with "I am good at Math." From Fall 2013 survey:

Response	How many answered this?	Succeeded in MAT 150/190?
Strongly Disagree	5%	0%
Disagree	10%	50%
Neutral	24%	40%
Agree	52%	45%
Strongly agree	10%	50%

Not a very strong correlation:

- Less than half who "agreed" or "strongly agreed" that they were good at Math made a C or better in Pre-calculus

Key determiner is who is willing to step up and work - not "natural talent"

Please understand: Higher standards now, and less "forgiveness"

Random College Advice 2

Keep on top of your schedule!

Less class time means fewer reminders - more responsibility on you!

More on personal responsibility:

- Don't expect to be "rescued"!
- Learn how to study - it's not just reading!
- Take notes
- Don't over-commit
- Learn to focus
- Present yourself and your work professionally



Don't miss the boat!

Random College Advice 3

You are responsible for your own success.

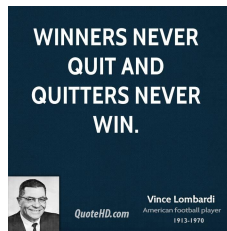
If you are struggling with material, you need to seek help!

All instructors have office hours; most will schedule other times if you need them; tutors and other help resources are often available.

But the first step is yours:
Admit when you need help!

Don't give up: Your education is the most important thing you can do for your future.

Don't let anything take away your future!



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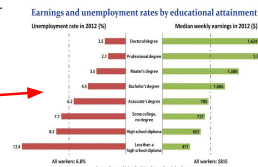
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More on the Value of College

From "Completing College: Rethinking Institutional Action,"
by Vincent Tinto:

INTRODUCTION

1 There is little question that higher education pays. On average, people who go to college and complete a bachelor's degree earn **over one million dollars more** during their lifetime than do those who do not go to college (Baum and Payea 2004, 2005; Baum and Ma 2007). On a range of outcomes—from personal development, health, and the like—evidence abounds that college graduates fare far better than nongraduates. Furthermore, the gap in earnings, and thus the penalty for not going to college, appears to be increasing (Baum and Payea 2004).¹

What matters is not simply attending college² but completing a degree, especially a four-year degree. Starting but not finishing college yields little earnings benefit in relation to those who do not. The gap in lifetime earnings between these two groups is small, only about \$250,000

Random College Advice 4

Readings are not just a bunch of facts to remember!

They are ideas to understand, connect to other ideas, and connect to your own life. Always ask why? (Indulge your inner 3 year old!)

When you are reading you should constantly be questioning what you're reading, trying to judge your own grasp of the material (big word of the day: "meta-cognition"), and trying to make connections with other things you know.

Almost a mini-scientific method: constantly question whether your conceptions (your "hypothesis" or "model") agrees with what you are seeing/reading.

I'll help you with this: Reading Reflection Questionnaires

Random College Advice 5

Do the readings before class!

Class time should be for discussion, clarifying issues you're uncertain about, taking things in new and interesting directions, ...

Class time should not be for simply repeating what's in the book in "lecture form" - you're all literate, so we shouldn't have to have "reading time!"

Think about this:

University professors are often among the world's top experts in their field
You can read - think about what you'd like to ask an expert as you read!

Random College Advice 6

Practice!

No one expects to be good at a sport or musical instrument without practice, so why should academic or technical skills be any different?

Assigned tasks shouldn't be all you do!

Be curious and explore - just to learn and get better, not for a grade or credit.

I know you've heard it a thousand times before. But it's true - hard work pays off. If you want to be good, you have to practice, practice, practice. If you don't love something, then don't do it. - Ray Bradbury

Random College Advice 7

Do things that make you uncomfortable!

Getting out of your "comfort zone" is the way you grow as a person. Whether this is pushing yourself academically, participating in extracurricular activities, getting to know people with different backgrounds, ... Experience new things!

And if living off campus: Spend more time on campus than you "need to"

What's coming up next...

Before Wednesday class:

- Two readings on class web page

General:

- Read Chapter 1 of "Blown to Bits" and do "Reading Reflection"
