
Careers, Education, and Universities

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Agenda

- Introduction
 - In Demand
 - Real World Jobs
 - Deliberate Practice
 - Universities
 - Adjuncts
 - Viewpoints
 - Questions
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Instructor

- Dr. Paul Comitz pcomitz@umbc.edu
 - Adjunct Faculty since 1990
 - At UMBC since 2000
 - Career Highlights
 - Embedded software engineer
 - Systems Engineer
 - Dir of Software Development
 - Program Manager
 - Still a student 😊
 - BS electrical engineering
 - MA Management
 - MBA
 - MS Computer Science
 - Ph.D. Computer Science
 - [Coursera](#), [edX](#), [Udacity](#) (always) in progress
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Instructor

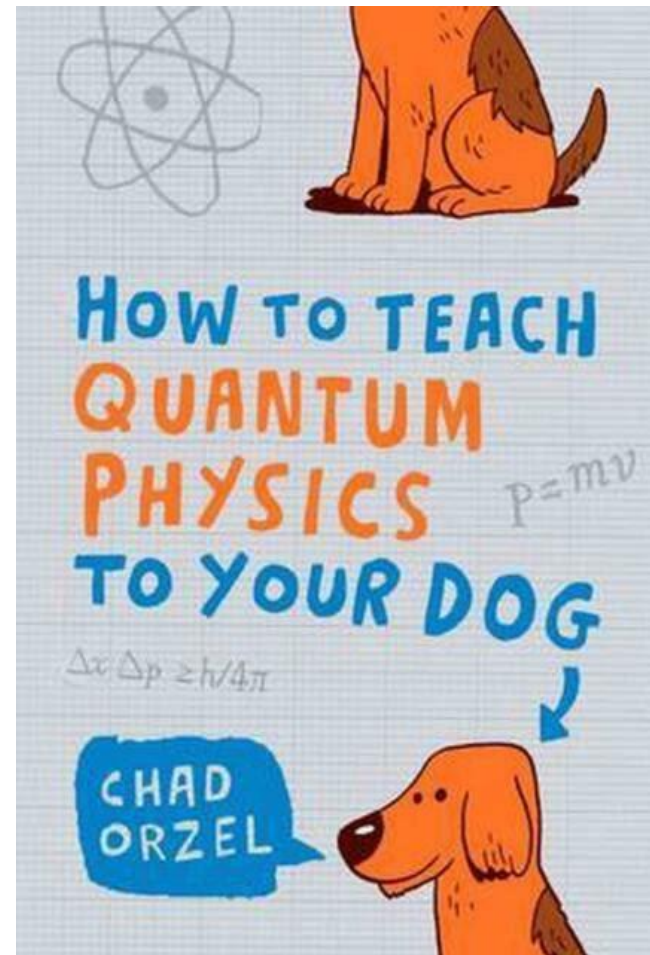
■ Career Highlights

- Grumman/Northrop Grumman
 - Embedded Flight Computer Assembly Language Programmer
 - Systems Engineer
- Boeing
 - Air Traffic Mgmt Department Head
 - Network Enabled Operations Chief Engineer
- MITRE
 - US Census Bureau
- Raytheon
 - Software Defined Radio



In Demand

- Quantum Computing
- Artificial Intelligence
- Cybersecurity
- Blockchain
- Best:
 - Combination of CS/IT and another discipline
 - Physics
 - Medicine
 - Manufacturing



Learning is Lifelong!

TEDx Talk – Does Practice Make Perfect ?

■ Deliberate Practice

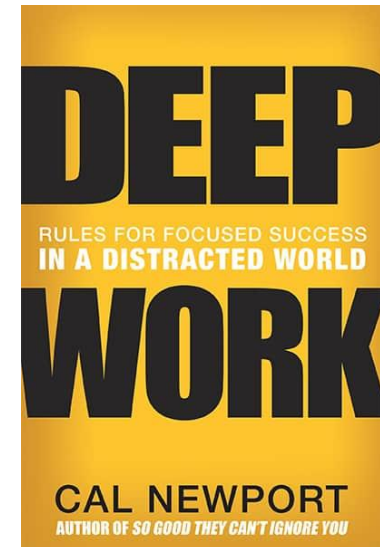
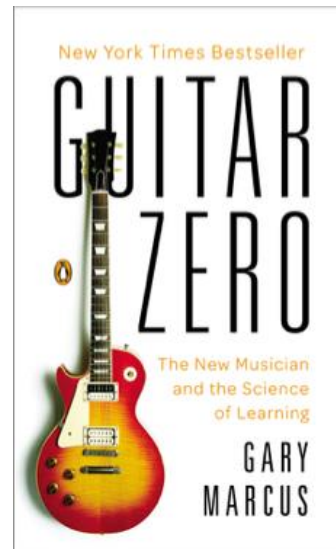
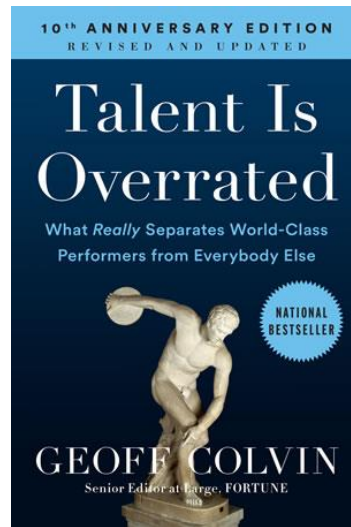
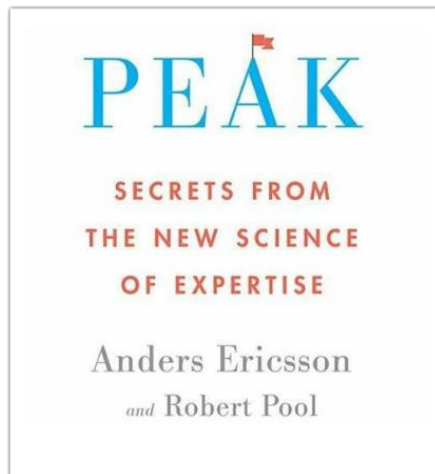
- Get Feedback
- Outside comfort zone
 - Get uncomfortable
- Maximum effort
 - (put your devices away!)
- Full attention
- Goal Oriented



What can I do?

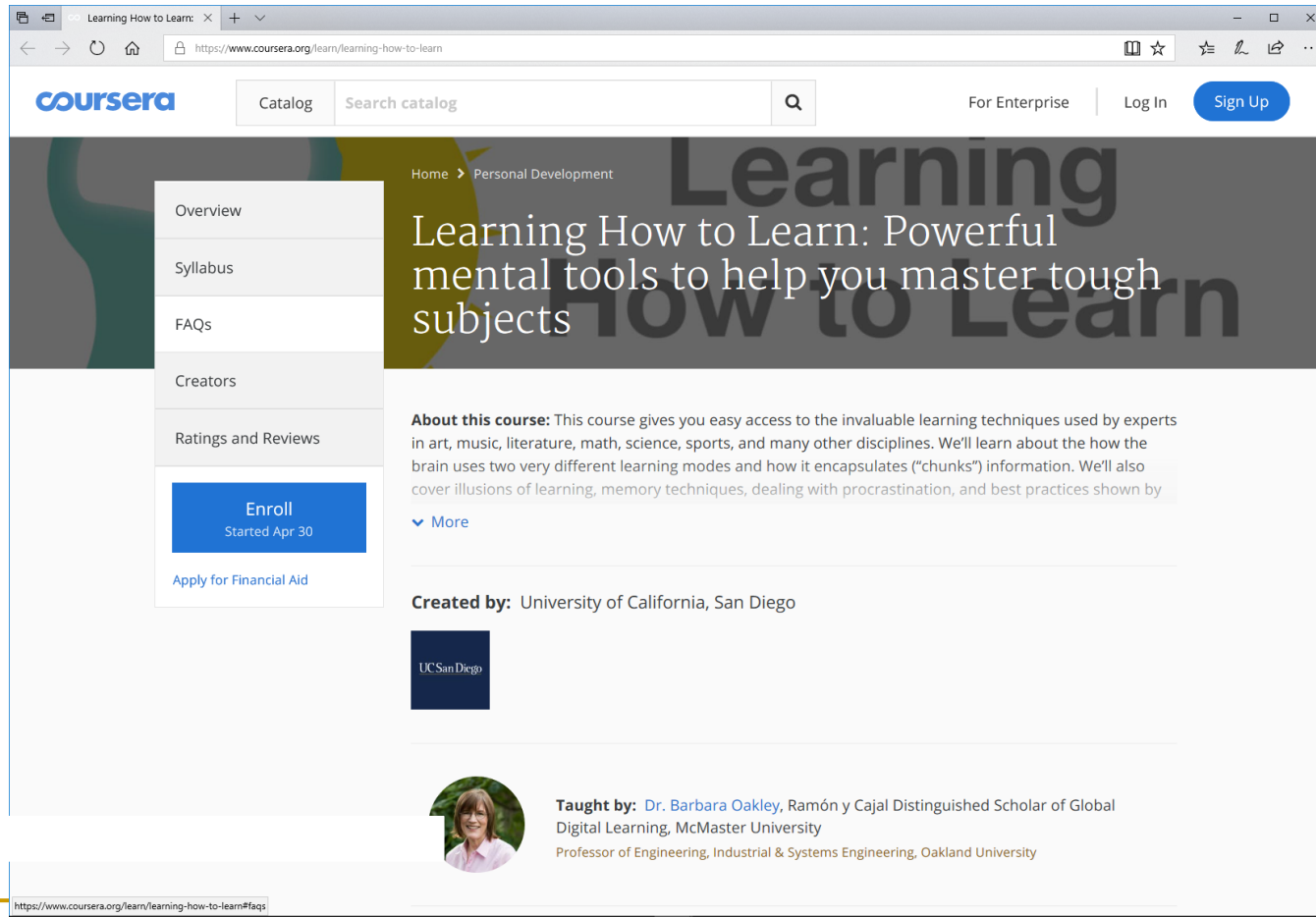
■ Read!

- All I have learned I learned from books



What can I do?

■ Take Courses!



The screenshot shows the Coursera website for the course "Learning How to Learn". The browser address bar displays "https://www.coursera.org/learn/learning-how-to-learn". The Coursera logo is in the top left, and there are links for "Catalog", "Search catalog", "For Enterprise", "Log In", and "Sign Up". The course title "Learning How to Learn: Powerful mental tools to help you master tough subjects" is prominently displayed. A navigation menu on the left includes "Overview", "Syllabus", "FAQs", "Creators", "Ratings and Reviews", and an "Enroll" button with "Started Apr 30" and "Apply for Financial Aid". The "About this course" section describes the course's focus on learning techniques. The "Created by" section identifies the University of California, San Diego. The "Taught by" section features a profile picture of Dr. Barbara Oakley and her credentials.

Learning How to Learn: Powerful mental tools to help you master tough subjects

About this course: This course gives you easy access to the invaluable learning techniques used by experts in art, music, literature, math, science, sports, and many other disciplines. We'll learn about the how the brain uses two very different learning modes and how it encapsulates ("chunks") information. We'll also cover illusions of learning, memory techniques, dealing with procrastination, and best practices shown by

▼ More

Created by: University of California, San Diego

UC San Diego

Taught by: Dr. Barbara Oakley, Ramón y Cajal Distinguished Scholar of Global Digital Learning, McMaster University
Professor of Engineering, Industrial & Systems Engineering, Oakland University

https://www.coursera.org/learn/learning-how-to-learn#faq

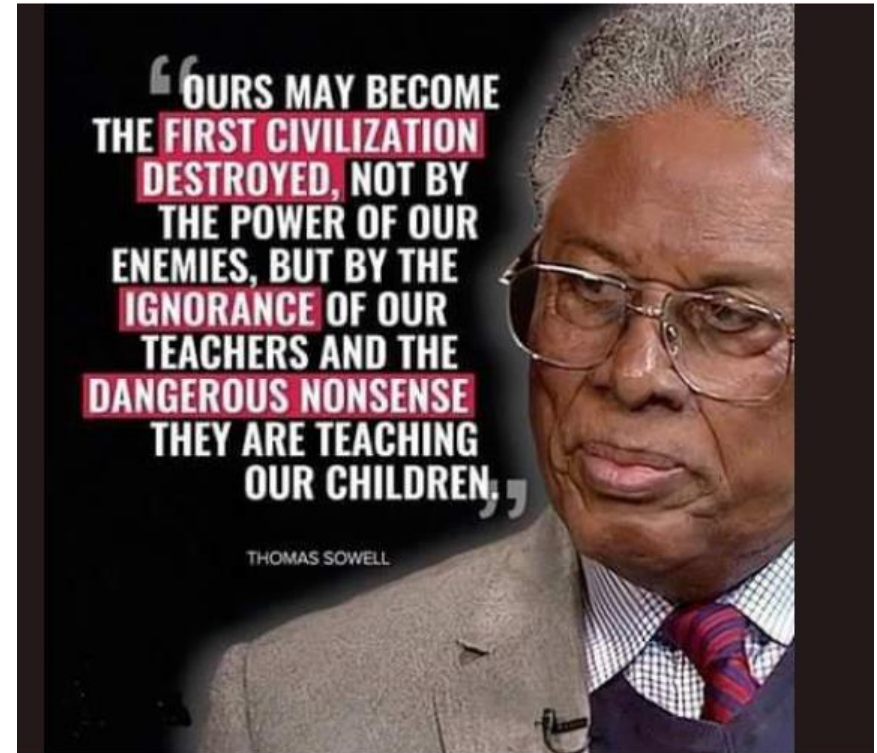
What can I do?

- Apply the techniques!



Avoid the Echo Chamber

- Do universities encourage many points of view?
- Censorship on campus and in social media
- Question the narrative
 - Gell-Mann Amnesia



Adjuncts and Universities

- Universities exploit adjuncts
 - [SlideShare](#)
 - [UMBC](#)
- What can you do ?
 - Speak up
 - Talk to your advisors, Deans, and Department Chairs



General Advice and Summary

- Work for a small company if you can
- Learning is lifelong
 - Sharpen the saw – continually
- Universities are not the only option
- Consider multiple points of view
 - Universities don't always provide this
- Career
 - Practice interviewing
 - Make a video with a 90 second intro
 - Interview frequently
 - Follow up
 - Check out career fairs
 - [Huntsville Hiring Event](#)