TRIO Educational Talent Search & Upward Bound

Clarion University of PA

Student Newsletter

Spring 2019

Talent Search

and

Upward Bound

You came to learn.

You had an adventure.

You made some friends!

Tips For Successful Navigation of Online Courses (Part 1)

Increasingly, education includes online coursework. The effectiveness of this option is widely debated with regard to retention and educational value, but one thing for sure is this nontraditional approach to education is here to stay.

Determining if the online course structure will work for you and your learning style is an important consideration. Consider these important factors:

Pre-conceived notions about online courses — Nothing catches an online learner by surprise more than making the mistake of underestimating the rigors associated with online learning. It is a common mistake to underestimate the time commitment necessary to meet course requirements. Don't assume that because there is no mandated classroom instruction time that you will spend less time meeting the expectations. Assumptions go a long way in challenging you to keep pace with the flow of the online course. When learners approach the course with the belief that minimal effort is required for course mastery and that cutting corners and reducing effort will work, the learner inevitably negatively impacts productivity. Preconceived notions result in the need to scramble to catch up. Be honest with yourself about the commitment necessary to be successful in any college course regardless of the platform.

Self-motivational factors — Online course success is highly reliant on a self-motivational approach (maturity). Understand the relationship of the self-directed approach to class participation and assignment completion plays. Learners that are heavily reliant on outside structures and interactive learning are likely to find online coursework to be a difficult. It is very easy to fall into the trap of underestimating the commitment necessary to keep pace in an online course. Traditional classes offer a classroom structure and schedule making it easier to remain engaged in the course. Online courses appeal to self-discipline to provide that sense of urgency. It's true that the online learner has access to a professor, but the connection to that support lands with the learner. The learner/teacher relationship is very different than a conventional face-to-face course. Additionally, many students find it difficult to navigate courses with only virtual classmate support.

Time management — Fact or Fiction? Online courses require more time in comparison to traditional classes? That is true in general…online classes do not have the luxury of a set class structure and learning often requires a greater commitment of time as a result. The online learner has to provide much of the structure independently using only the course syllabus and deadlines. It is a common mistake to underestimate the time required for online learning. The generally recognized time for online courses is six to 10 hours per week per course. Courses that have a work at your own pace element can result in a greater time commitment.

The hidden benefit of the presence of a professor and classmates in a traditional course is that they support increased urgency. Getting into a weekly/daily routine with regards to your coursework is vital. Know yourself and what works best for you in terms of work productivity. For example, if you are a night owl then set your school work expectations and structure around that timeframe. It is sensible to use your strengths to your advantage and in how you approach the online course.

Spring Programs

UB Campus Dates: February 16, March 16, and April 27

TS Dates:

March 20—Geneva and CC of Beaver

March 23—Tech Nutz II

April 10—Betty Mae Fikes

April 22—Earth Day—Edge of Extinction

Check your flier or the website for more information.

So, You Want to Work with Technology?

According to the Bureau of Labor Statistics, "Employment of computer and information technology occupations is projected to grow 13% from now to 2026, faster than the average for all occupations. These occupations are projected to add about 557,100 new jobs. Demand for these workers will stem from greater emphasis on cloud computing, the collection and storage of big data, and information security." Here are the top five IT careers for 2018.

1. **Data Scientist** – directs the gathering and application of data for organizations, including corporations and government agencies. This position requires a minimum of a bachelor's degree in computer science, information systems, computer engineering, or relevant field. A master's degree may be preferred. The median base salary is $110,000.
2. **DevOps Engineer** – functions as a "jack of all trades" regarding databases and information systems within organizations. This position requires a minimum of a bachelor's degree in computer science, information systems, information technology, or related field. A master's degree may be desirable for career advancement. The median annual salary is $91,000.
3. **Information Security Analyst** – develops and implements computer security strategies and systems to protect vital information from computer crime and cyber warfare. This position requires a bachelor's degree in information security, network security, computer information systems, computer science or related field. The median annual salary is $77,000.
4. **Mobile App Developer** – creates applications for mobile devices (iPhones and Androids). This position requires a bachelor's degree in software engineering, computer science, mobile application development, mobile computing, or related field. The median annual salary is $72,000.
5. **Web developer** – collects or creates web content, plans layouts and navigation, codes web pages, and tests websites for user experience and performance. The median annual salary is $67,000.

Here are seven PA schools to get you started:

1. **Carnegie Mellon University** – private institution offering undergraduate and graduate degrees in computer science, computer engineering and information systems. Visit www.cmu.edu for more information.
2. **University of Pittsburgh** – state-related university offering undergraduate and graduate degrees in computer science and computer engineering. Visit www.pitt.edu.
3. **Pennsylvania State University** – state-related university offering undergraduate and graduate degrees in computer science, computer engineering, information systems, information technology and cybersecurity. Learn more at www.psu.edu.
4. **Clarion University** – state system (PASSHE) school offering undergraduate degrees in computer science and information systems. Visit www.clarion.edu.
5. **Edinboro University** – state system (PASSHE) school offering undergraduate degrees in computer science: concentration in game and virtual world development, network & system administration, theoretical track and web & mobile application development. Learn more at www.edinboro.edu.
6. **Pittsburgh Technical College** – technical school offering associate and bachelor degrees in information systems, computer programming and information technology. For more information go to www.ptcollege.edu.
7. **Community College of Allegheny County** – community college offering associate degrees in computer information systems, cybersecurity, data analytics technology, information technology support and software development. Check it out at www.ccac.edu.

Whether you were considering an IT career or not, hopefully you have gained information and motivation to plan for your future.

Sources: https://thebestschools.org; https://www.techrepublic.com; https://www.bls.gov; https://cloud.kapostcontent.net; https://careerbuilder.com; https://www.glassdoor.com

Job Application Tips

- Be prepared—take a copy of your resume, a pen, and contact information for references and previous employment.
- Follow directions when filling out the application. Be neat!
- Be honest. Answer questions the best you can.
- Check your application including spelling, phone numbers, dates, and information where you can be reached.
- Leave your resume along with the application.
- Check your voicemail message—speak clearly, include your name.

~Good Luck!

Technical and Vocational Career Trends in Pennsylvania

Pennsylvania ranks as the sixth largest economy in the United States with a GDP (Gross Domestic Product) of over $600 billion and ranks 25th in the world. Pennsylvania expects to have nearly an eight percent employment increase in the next few years. Many of the jobs will require some type of post-secondary training, promising employment in skilled trades, healthcare, social services, technology, business, creative media and design, tourism, beauty and personal care.

- Manufacturing has always been one of Pennsylvania's major industries and now energy production, particularly natural gas extraction, has become an important sector. There are anticipated openings in skilled trades such as welding, plumbing, and commercial truck driving. Openings for carpenters, electricians and HVAC technicians are projected to grow by 19%. Additionally, there is an established need for automotive mechanics and auto body technicians.
- Pennsylvania's population is aging and the number of residents aged 85 and older is projected to almost double. Seniors will account for a large group of healthcare system users. This means all kinds for employment opportunities in health and social services.

- Pennsylvania ranks seventh in the U.S. for professionals employed in high-tech industries. Employment of computer programmers, support specialists, software developers, and systems analysts is expected to rise by 17%.
- Growth in the business, legal assistant, and finance sectors is projected to increase by 18%.
- The mix of urban environments, natural wilderness, and rural settings has made Pennsylvania attractive to the film industry. Since 2007, the state's film industry has created over 24,000 full-time jobs for all kinds of creative and technical professionals like multimedia artist, animators, and audio technicians.
- The diversity of big and small towns, scenic forests, historical attractions, and cultural venues has Pennsylvania generating $33 billion from tourism. Of course, food is always on the agenda of tourists. It's not surprising that Pennsylvania employs over 182,000 culinary workers.
- As the state's population grows, so does the demand for personal care services, such as cosmetologists and estheticians. The need for skincare specialists is expected to grow by more than 35 percent.

Many of the expected career opportunities will require only an associate degree earned at a community college, technical or vocational school. These programs offer fast and often a more affordable path to employment.

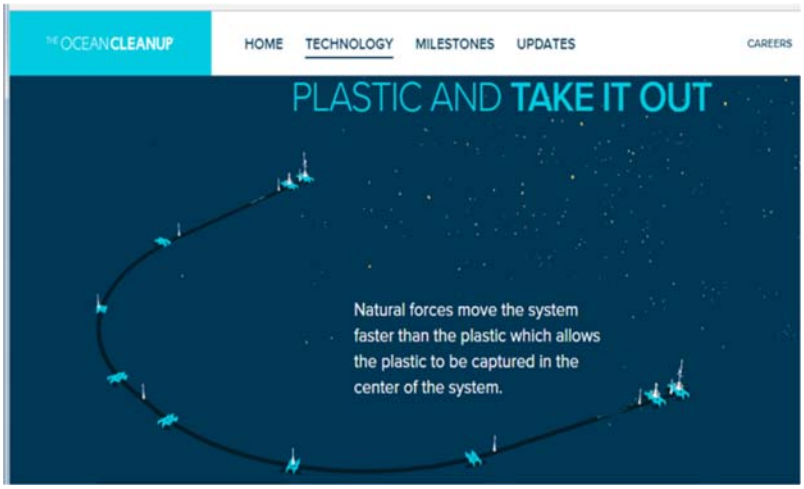
Sources: Pennsylvania State Data Center, Pennsylvania Department of Community & Economic Development, Center for Workforce Information & Analysis, Pennsylvania Department of Labor & Industry websites cited in , "7 Reliable and Growing Career Areas in Pennsylvania (PA), https://www.trade-schools.net/locations/pennsylvania-schools-directory.asp

Trending Tech Based Social Projects Targeting Earth's Oceanic Ecosystem

When it comes to jobs/careers in tech related fields most individuals think of companies like Google, Apple, or SpaceEx. With continual advancements in technology, the job market for tech based careers is among the fastest growing. Technology has found itself useful in every field, particularly in the research and protection of our environment. Highlighted below are two current trending tech social based projects aiding in the cleanup and protection of our oceans.

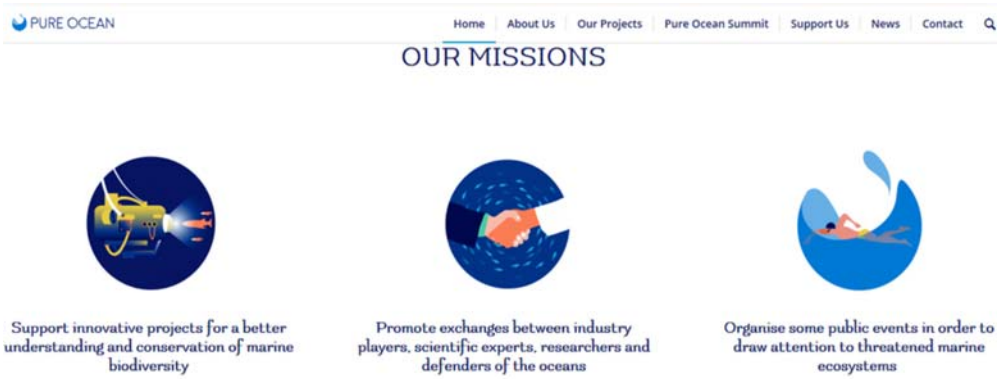
The Ocean Cleanup Project

The Great Pacific Garbage Patch (think California to Hawaii) is a stretch of ocean with an estimated 1.8 trillion pieces of plastic floating on and below the surface. In the hopes to clean up the world's oceans and decrease the footprint we have had on its ecosystem, 23-year-old inventor Boyan Slat designed, engineered, and implemented a device to clean up the Great Pacific Garbage Patch (in 2013 at 18 years of age). The Ocean Cleanup Project has now grown to include the efforts of over 70+ researchers, engineers, ecologists, and computational modelers, all inspired by Slat's device. In all, 60 systems will be deployed, each over a mile in length, and will begin to collect years of garbage that has found its way to our oceans. How does it work? The system consists of a 600 meter-long floater and a three meter-deep skirt that forms a temporary coastline to concentrate the plastic so it can be removed in a large quantity. The system is designed to create a downward current so fish can swim below it, unaffected by the system. Using maps of the currents, trade winds, and other computer modules, the project can track large amounts of oceanic trash and route the systems to head them off before they reach further coastlines in the Netherlands, Asia and points south. The system is linked to a satellite to communicate its location and it's also fitted with guidance systems, cameras and sensors to prevent collisions.



The Pure Ocean Project

With a goal to raise over $1 million per year to fund its initiatives, the project is spearheaded by Davis Sussamann. Through the use of various technologies, the Pure Ocean project aims "to boost innovation in the study of biodiversity and marine ecosystems in order to contribute to protection of our oceans." Through advancements in technologies, scientists utilize the innovations to further understand the dynamics of the ecosystems. Drones, digital data sensors, and various instruments are used to collect data that will determine the impact we have on the biodiversity of our oceans. In April, 2017, Pure Ocean held a summit of top marine industry professionals and scientists to discuss the state of the oceans and focus on how their combined innovative efforts would help reach Pure Ocean's goals. For example, Pure Ocean employs drones to track and deter the poaching of whales, and their dive teams use smartphone applications to send real time data (through underwater devices) to scientists all over the globe.



Interested in learning more about the project and seeing how it works? Visit the Pure Ocean Project at: https://www.pure-ocean.org

Virtual Reality: The Ultimate Learning Experience

Hike Mount Everest; take a trip to the moon; tour the ancient Mayan ruins—opportunities are endless through the use of Virtual Reality (VR). Most people think of VR in terms of playing video games, but VR is becoming much more.

Although in the early stages, VR will continue to become more immersive as technology advances. The ultimate experience of using the senses to create memories enhances learning, increases memorization and provides for the ultimate learning experience. VR also aids in making learning experiences social, by allowing us to communicate and learn from one another. VR can be used to engage in geography, history, literature, biology and more.

Google Cardboard is a cardboard virtual reality headset that sells for under $10 and there are others as inexpensive as $2.99. As with anything, the ultimate experience comes with a price tag, with headsets selling for up to $400. Of course the quality and durability correlates to the price. Anticipate the costs coming down as technology increases and VR becomes more widespread.

Check out these free VR apps (some require viewers and some work with your phone):

- ***Google Expeditions***— has over 1000 VR tours and content is constantly expanding. Fly with NASA to Jupiter, tour the human anatomy respiratory system or engage in many other adventures.
- ***Google Arts and Culture***— *is* similar to the Expeditions app mentioned except it mainly focuses on museums, heritage sites, and historical places.
- ***Cardboard Camera***— take 360-degree pictures via your Android and iOS devices. The app is extremely easy to use and you don't even have to create a Google account. Simply download and install the app. It may take time to capture perfect pictures, but it's well worth the effort for the experience afterward.
- ***Littlstar VR Cinema***— changes the game by offering a full library of 360 degree videos designed to make you feel like you're the cameraman. Whether you'd prefer to educate yourself about the state of Nepal post-earthquake or simply jam out to some music videos, Littlstar provides a point of view that you just can't get anywhere else. Includes Broadway Theater and sporting events.
- ***The FOO show***— is technically a talk show. Funded via Kickstarter and powered by motion-capture, the app features a digitized Smith speaking with guests about games and tech culture. *The FOO Show* transports viewers directly into the game environments that are being discussed onscreen.
- ***Within***— provides a platform to view content from VR creators across the world, from on-rails fantasy rides to 360-degree music videos. New experiences are added regularly. View content from news outlets like NBC, Apple, the New York Times, and Vice Media, as well as musical groups and movie studios
- ***NYT VR***— 360 filmmaking is an exciting use of virtual reality. The New York Times is producing some of the highest quality work in the field of 360 video, and you only need a smartphone to watch these.
- ***Tour Creator***— web-based tool for building interactive, multi-scene virtual tours. It streamlines the creation process so that it is by far the most accessible tool for simple 360 tours.
- ***Forge.js***— offers adventurous videos. This site replaces the GoPro VR app. Videos are captured via GoPro cameras so you can expect mind-blowing quality.

Source: https://www.thinkworldnews.com/2018/11/15/the-best-virtual-reality-apps-of-2018-1213281doing_wp_cron=1548445812.4668979644775390625000 and https://jacksadvice.com/best-free-vr-apps-list/1282/

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