

## Why short courses?

Degrees are nice. Young people work for them. Older people brag about the ones they have. But, in the modern era, one could spend a couple of year getting a master's degree and wind up having learned what was fashionable and useful five years ago when the degree was designed. Or, more likely, one has just taken a bunch of unrelated courses, added up credits, and really learned to do nothing new, except now one has an official credential.

Universities, except in their continuing education programs, do not typically try to meet the needs of people who have graduated college and find there is more they need to learn right now. University professors are consumed with research and not with educating the general public. The continuing education departments of big universities have a mandate to help educate these same people But it doesn't mean they know how to do it or have the ability to fine the faculty to do it. In high tech fields we need to learn new things all the time. Even the continuing ed folks in a university do know a faculty member who could teach something that is in demand now, do, that doesn't mean the faculty member would do it. As a provost friend of mine once said, "with faculty everything is a la carte.

XTOL has remedied this situation. We have identified fields where short courses that will satisfy immediate needs of people in the wrong world or people preparing to enter the working world can be found. We have found the best and brightest faculty and helped them design a learn by doing on line course that will be immediately useful to the person who takes it.

As an example consider this one:

### Search Engine Optimization (6 weeks part time)

In this course students learn what it's like to be on a team of SEO specialists consulting with a company whose website is not ranking highly on search engines. Students practice techniques related to key word selection, key word placement, refactoring web-site content and other optimization methods, and will evaluate results by running a search engine to improve the company's search rankings. HTML experience is required.

No one needs a degree in search engine optimization. But if your company has a web sit you might want to invest in getting that site seen. Making sure someone in your organization has this skill might matter.

Another example:

### Data Analytics for eCommerce/Retail (7 weeks part time)

In this course students identify the business objectives to predict or optimize and learn how to quantify those objectives, analyze data, build predictive functions based on machine learning techniques, and how to apply these to optimize outcomes. Students will use software tools to explore and analyze data to address targeted business problems. No programming experience required, but quantitative thinking and a can-do attitude are a big plus.

Another one:

## Sensor-Based Mobile Applications (7 weeks part time)

By 2015 more than 50 percent of smartphones will include sensors like GPS, accelerometers, a magnetometer, a gyroscope, and optical and touch sensors. Learn how to build applications that take advantage of sensor data in this short course in which students build an application that uses the sensors currently available on mobile devices. This course is for experienced programmers.

Another:

## Big Data Essentials (6 weeks part time)

In this short course students are tasked with taking a company into a cloud-based framework to enable big-data analytics. Students evaluate cloud services provided by Amazon and other companies, learn how to work with Hadoop, assess the trade offs of setting up a company's own cloud versus renting from a cloud provider, and set up an account for cloud services. Students also explore methods to enable analytics on the cloud.

One More:

## Software Risk Management (5 weeks part time)

In this non-programming course aimed at project managers and team leads, students learn risk management while running a software project. Students tackle risks such as whether or not a new business venture is viable, whether Agile can reduce development risks while still honoring contractual obligations, and whether architectural risks can be reduced by the adoption of specific frameworks.

We have built many more of these.

Education is changing before our eyes. Years spent in a school that teaches you to write research papers and read books will not get you employed.

Learn what you need now. Education on demand in the form of short learning by doing on line courses.