The AFIT Offers Software Continuing Education at Your Location at No Cost

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All our lives we have heard stories and witnessed examples that show education is the means to improve our abilities and lives in general. Unfortunately, we seem to forget this maxim when we enter the software workforce – instead believing in fads, tools, and long hours. But education truly is the long-term solution to the Department of Defense's software woes, and the Software Professional Development Program is an inexpensive, flexible way to get state-of-the-art software engineering education right away. This article explains the program and reinforces the truth that education is the answer.

Like most software engineers and managers, you are mired in a never-ending battle to get your project completed to your customer's satisfaction and your boss' schedule and budget. In hopes of improving your fate, you would like to try some of the new techniques you have read or heard about, but first you need more information. There are a number of opportunities, but where will you get your software education?

You could go to a local university or attend a commercial software training class. Most likely, you do not have time to take a leave from work to finish your master's degree, and your local university is too theoretical and cost prohibitive. Commercial software training is frequently expensive and normally requires traveling. So what are your options? You could keep burning the candle at both ends, buy stock in Maalox, and hate your job. Or you could get some practical, state-of-the-art software engineering and management education at your location and at no cost to your unit. That sounds too good to be true – how can we offer that kind of a deal?

In the late 1980s, the Air Force recognized that education was the answer to the software crisis and formed the Software Professional Development Program (SPDP) at the Air Force Institute of Technology (AFIT). This program – once a training requirement for software engineering officers within the communications-computer systems career field – continues to help organizations combat poor quality, late, and over-budget software. As Air Force systems increasingly rely on more complex software, the need for timely software engineering education has increased. SPDP provides this education – free of charge – to all Department of Defense employees. The courses are taught in distance learning, continuing-education format from the AFIT's School of Systems and Logistics at Wright-Patterson Air Force Base in Dayton, Ohio.

A Custom Curriculum

The SPDP program is flexible to meet your needs. All distance-learning courses are offered a la carte with no prerequisites. That means you get the knowledge you need, when you need it. Table 1 shows AFIT's current lineup of continuing education software courses. This course lineup represents the largest restructuring of the SPDP curriculum since its inception. In addition, you can tailor a sequence of classes for yourself or you can complete a series to earn one or more of our certificate programs (see Table 2).

The first two courses offer an introduction to the software life cycle and proven techniques to help successfully manage a software development or acquisition project. Specific courses are also offered for each life-cycle phase: requirements, design, implementation, and maintenance. Next, software testing and object-oriented issues are explored. The two final courses offer hands-on opportunities to put your new capabilities into practice.

Our customers told us they wanted shorter courses to fit into schedules filled with deadlines and deployments. Each SPDP course is three to four weeks in length with twice-weekly lessons. Missing a live class due to a TDY or emergency will not slow you down since we can deliver classes on-demand using Internet video streaming, satellite transmission, videotape, Internet conferencing, or CDs. This gives you the option to come to class as your schedule permits.

While you are taking classes, you will get most of your materials through AFIT's new Web-based learning management system, called Blackboard. This system provides a single, easy-to-navigate location for students to access course materials and lessons. Blackboard also helps to simulate a local classroom environment by providing a place to submit homework, take quizzes, and communicate with fellow students and faculty online. The SPDP program works not because of technology, but because we have been careful to include personal interaction in the mix with practical information. The SPDP faculty deliver the lessons and are available to help you through each course, provide free consulting services for you and your organization, and can even offer on-site workshops if your organiza-

Table 1: *SPDP Classes*

Course Number	Course Title
CSE 480	Introduction to Software Project Management
CSE 481	Software Systems Engineering
CSE 482	Software Requirements
CSE 483	Software Design
CSE 484	Software Implementation
CSE 485	Software Systems Maintenance
CSE 486	Verification, Validation, and Testing
CSE 487	Fundamentals of Object-Oriented Design
CSE 488	Object-Oriented System Modeling
CSE 489	Advanced Analysis and Design of Object-Oriented Systems
CSE 496	Practicum (In-Residence)

Table 2: *SPDP Certificate Programs*

Certificate	Required Courses
Software Engineering Management	CSE 480 and 481
Software Life-Cycle Development	CSE 482, 483, 484, and 485
Advanced Software Development	CSE 486, 487, and 488
Technical Software Development	CSE 489 and 496

Workshop Planning Announcement

The Software Professional Development Program (SPDP) faculty is working to set up the Department of Defense's (DoD) first-ever software engineering education workshop. Goals for this meeting are to develop a listing of educational and training opportunities and to foster working relationships to realize better and more comprehensive educational programs to offer to the DoD's software workforce. If you work in the field of software engineering education and training or represent an organization with a significant demand for software engineering education, please contact the SPDP faculty to add your organization to our list of invitees.

tion has a large education need. As an added bonus, we provide free course textbooks for your professional reference library.

Our only resident course, CSE 496, is offered at least annually at the AFIT's campus and provides students a chance to put all of the SPDP techniques to work in a team-based software development project. Students laud this opportunity as the culmination of the program and a great chance to try new skills in a non-threatening environment while networking with other practitioners.

Your best way out of the software death-march nightmare is to invest some time improving your abilities. Fortunately, you do not have to go far or spend a lot of money. Our faculty is here to help. Most SPDP students see improvement during their current projects.◆

Getting Started

Get started today by either filling out an application on our Web site at <http://ls.afit.edu/spdp>, e-mailing the faculty at spdp@afit.edu, or contacting Candace Barker at (937) 255-7777 x3319, or DSN 785-7777 x3319.

About the Author

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LETTER TO THE EDITOR

Dear CrossTalk **Editor,**

Hello and thanks for another informative CrossTalk (July 2002) and especially for the Open Forum article "JAD on a Shoestring Budget" by Dr. Mario J. Spina and John A. Rolando.

In my experience facilitating many JAD-like workshops, this approach to requirements elicitation saves time and money and helps clients and technical staff get the right stuff, fast. Best of all, the collaboration that is the hallmark of these sessions sets the stage for solid client-IT relationships so necessary for successful projects.

The authors provided a helpful set of additional reading and Web sites, to which I would like to add my own: <www.ebgconsulting.com/publications.html#jad>.

Please let your readers know that I've also posted numerous articles on my Web site on the JAD topic. There are pages that provide practitioners with checklists, tips, examples, questions and templates that are useful for planning and running workshops.

Ellen Gottesdiener
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