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<tr>
<th>Date (sorted by)</th>
<th>Title/Fee</th>
<th>Description</th>
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| 8 - 9 Dec        | Ruby/Rails                  | **For:** Useful for *Computational Thinking (IS103)* as Ruby is used in this course.  

**Prerequisites:** Basic programming.  

**Syllabus:**  
This 2-day workshop will cover the fundamentals of the Ruby language, and the Ruby on Rails framework, and is suitable for programming beginners. The workshop covers the basics of the Ruby language, but expects that you have got the fundamentals of programming languages so that we can cover more ground. In addition, we will cover how Rails builds web applications using the MVC (model view controller) paradigm, with hands-on exercises to venture deeper into each layer of a web application.  

**Min class size:** 15  
(the class will only run if the min number is met)  

**Max class size:** 45  

**Instructor:**  
Our Alumni - Jaryl Sim  
I’m the technical founder at Tinkerbox Studios, which I built from the ground up whilst pursuing my degree at SMU. Today, we help startups build web applications on Ruby on Rails, utilizing Lean UX and Lean Startup techniques. I got my start in technology when I was in secondary school, learning C/C++ to pursue my interest in game development. I eventually grew out of that and learned about web development, using the .Net platform. When I picked up Ruby on Rails, back in 2008, I was exposed to a new way of working on software. The ruby community was a gold mine of not just best practices, but innovative endeavors that moved the web forward, and I knew I had to be a part of that community. |
| 15 - 19 Dec      | Java Programming            | **For:** It is a good follow-up to what is covered in IS200, and you will learn more about the Java programming language which will come in handy for the next course, IS201 (Object-Oriented Application Development).  

**Prerequisites:** Completed ISSF (IS200), or Fundamentals of the Java Programming Language  

**Min class size:** 30  
(this course will run only if we have at least this number of students)  

**Max class size:** 70  

**Notes:**  
- SMU is conducting this course under the Oracle
Academy. This course covers the official syllabus of the Oracle Certified Java Programmer (OCJP) certification.

- Participants are encouraged to take the certification exam after attending this course.
- This is a very intensive Java programming course & a good “follow-up” from the fundamental course.

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| 4 - 8 Aug (5 full days)    | Fundamentals of the Java Programming Language | For: Mainly for new batch of freshmen or IS second major students from other schools.  
Prerequisites: nil  
Max class size: Stated below  
Instructors: (45/run) Vandana/Joelle  
(40/run) Hong Seng/Lay Foo  
Syllabus:  
The Fundamentals of the Java Programming Language course was designed to enable students with little or no programming experience to begin to learn programming using the Java programming language. The course teaches the significance of object-oriented programming, the keywords and constructs of the Java programming language, and the steps required to create simple Java technology programs. Students taking this course can receive a solid basis in the Java programming language upon which to base continued work and training. The course features the Java Platform, Standard Edition 6 (Java SE 6) platform, and uses the Java SE Development Kit 6 (JDK 6) product.  
Notes:  
- SMU is conducting this course under the Oracle Academy. This course covers the official syllabus of the Oracle Certified Associate, Java SE 6 (OCA).  
- Number of actual runs and instructors will depend on the enrollment.  
- You will need a laptop for this course.  
- Any pre-course preparations details will be sent to you by the respective instructors nearer to the course date. |
| 13 Aug (Wed) - half day from 10am to 3pm (after which students will attend convocation) | Quick and Dirty Java | For: For freshmen who cannot attend "Fundamentals of the Java Programming Language"  
Prerequisites: You must NOT have signed up for Fundamentals of Java Programming. You should NOT be familiar with Java as a programming language, otherwise this course will bore you to death (in fact, you should be totally new to programming because this course assumes no prior knowledge). |
Max class size: 20

Instructor:
Mok Heng Ngee

Syllabus:
This is a customized and compacted course for freshmen students who are unable to attend the Fundamentals of Java Programming (Fundamentals of the Java Programming Language) conducted from 4-8/Aug/2014. Unlike Fundamentals of Java Programming, participants will NOT receive an official course textbook.

Notes:
- You will need a laptop for this course.
- Students should bring (or wear) their formal attire for convocation for day 1 because students are expected to attend the convocation ceremony immediately after the course ends on day 1. (There’s no time to go home for a change.) Please bring your personal laptops with Windows 7 installed; we will install the Java Development Kit during the course itself.

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<tr>
<td>14 May 9.00am - 12.00pm @ SoE, SR 2.6</td>
<td>IT Governance</td>
<td>For: Students interested in the governance of enterprise IT, IT audit, risk and compliance.</td>
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<tr>
<td>Fees: $10</td>
<td></td>
<td>Prerequisites: None</td>
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<tr>
<td></td>
<td>Syllabus:</td>
<td></td>
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<tr>
<td></td>
<td>What is IT Governance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Frameworks for the governance of enterprise IT</td>
<td></td>
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<tr>
<td></td>
<td>- COBIT v4.1 framework and application</td>
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<tr>
<td></td>
<td>- Case example of SMU’s IT Governance Implementation Journey</td>
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<tr>
<td></td>
<td>Min class size: 15</td>
<td>(the class will run only if the min number is met)</td>
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<td></td>
<td>Max class size: 45</td>
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<tr>
<td></td>
<td>Instructor:</td>
<td>Tang Ai Chee</td>
</tr>
<tr>
<td>15 - 16 May 9.00am - 5.00pm @ Venue TBC</td>
<td>Project Management Game</td>
<td>For: Students who are keen to learn and experience how to be an effective project manager.</td>
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<tr>
<td>Fees: $20</td>
<td>Prerequisites: Nil</td>
<td>Syllabus:</td>
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<td>- Practice effective project management skills in a fun way through a project management simulation game.</td>
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<td>- Understand the key elements of the project</td>
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management framework, including project stakeholders, the project management knowledge areas, common tools and techniques, and key project success factors.

**Min class size:** 12  
**Max class size:** 45

**Instructors:** LEE Wee Leong, Joelle DUCROT

| Run 1: 19 - 20 Jun 9.30am - 6.00pm @SIS SR2.3 | **Basic Web Application Development with JSP & Servlets**  
**For:** Students who will be taking SE or IS480  
**Prerequisites:** Generally proficient in Java programming and completed OOAD.  
**Min class size:** 20  
**(the class will run only if the min size is met)**  
**Max class size:** 50  
**Instructor:** Lee Yeow Leong  
**Syllabus:**  
This course introduces students to web architecture, and application development using JSP. By the end of this course you will know how to deploy and configure Tomcat and be able to build a database-driven web application. This course will cover the essentials to prepare you for software engineering.  
**Bonus!**  
Students who completed the course with full attendance and passed the quiz at the end of the course will be awarded a Remote Presenter.  
**Note:** Students who sign up for our Oracle course “Web Component Development with Servlets & JSPs, Java EE 5” will not be allowed to sign up for this class. Choose one please. |

| Run 1: [Full] 26, 27, 30 Jun 1, 2 Jul 9.30 - 6.00pm @SIS SR2.4 by Yeow Leong | **Web Component Development with Servlets & JSPs, Java EE 5**  
**For:** Students who will be taking SE or IS480  
**Prerequisites:** Generally proficient in Java programming. Preferably completed SL275. This course is a superset of the JSP/Servlet knowledge required for IS203 Software Engineering. Students who signed up for "Web Application Development with JSP & Servlets" course are not allowed to sign up for this class. This class is strongly recommendation for students who have a strong foundation in Java (a good indication would be a B+grade for OOAD).  
**Max class size:**  
Run 1: 50/run  
Run 2: 45/run  
**Instructors:** Lee Yeow Leong, Fiona Lee |
**Bonus!**

**Run 1:**
You have to decide on the Difficulty Level at the start of course.

**Difficulty Level: **
$20 Capital Land Voucher + Remote presentator if pass the hands-on test

**Difficulty Level: *
$10 Capital Land Voucher if pass a paper quiz

**Run 2:**
$15 Capital Land Voucher

**Syllabus:**
JavaServer Pages (JSP page) technology and servlets are the key web-tier technologies defined in the Java Platform, Enterprise Edition (Java EE platform). The Web Component Development With Servlet and JSP Technologies course provides experienced developers of Java technology applications the knowledge and skills to quickly build web applications from JSP page and servlet technologies using the Sun Java System Application Server, and the Apache Struts framework. Students are exposed to the current methods for analyzing, designing, developing, and deploying web applications with Java technologies. Lab exercises provide students with experience in constructing and deploying the small-to-medium scale web applications found in intranet and low-volume commercial sites. The course features the Java EE 5 technology, and uses the Java EE 5 SDK. The students perform the lab exercises using the NetBeans Integrated Development Environment (IDE). This course is also a recommended method for preparing for the Oracle Certified Professional, Java EE 5 Web Component Developer certification examination.

**Notes:**
1. SMU is conducting this course under the Oracle Academy. This course covers the official syllabus of the Oracle Certified Expert, Web Component Developer certification.
2. This course will cover **MORE** than the essentials to prepare you for Software Engineering.
3. Students who sign up for Basic Web Application Development with JSP & Servlets will not be allowed to sign up for this class. Pick one please.

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<tr>
<th>28 Jun (Sat), 5 Jul (Sat) 10.00am - 2.00pm @ SIS, SR 2.3</th>
<th>Basic Raspberry Projects</th>
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<tr>
<td>Fees: SGD $120/- (Standard Pack)</td>
<td>For: Students or Staff who wants to learn about basic Raspberry Pi and Arduino Projects. (Recommended for CodeXtremeApps 2014 participants).</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong> None</td>
<td><strong>Syllabus:</strong></td>
</tr>
<tr>
<td></td>
<td>- Basic Circuitry</td>
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SGD $130/-
(upgrade to Night Vision Camera)
(Fees include hardware)

Participants will receive:
1. One Raspberry Pi
2. One Raspberry Pi Camera
3. One Breadboard
4. One Assortment Pack of Cables.
5. One Motion Sensor Unit
6. One SD card for Raspberry Pi

Learn about building your first circuit and understand components like Solenoid, Relay, Resistors and Light Emitting Diode.
- Building your first Programmable Circuit with Raspberry Pi
Learn to control a circuit using Python on a Raspberry Pi Platform. Eg, turn on/off household appliances and activating a solenoid.

- Raspberry Pi camera
Build your first Raspberry Pi camera that records in HD.

- Using sensors with Raspberry Pi
Learn to interface a simple Motion Detector with your Raspberry Pi.

*Course Participants will be able to bring home their projects. Participants are to bring along their own MicroUSB phone charger for powering up the Raspberry pi.

Min Class Size: 5
Max Class Size: 20

Instructor: Andre Ng