**COURSE SYLLABUS**

**2ndSemester, AY 2015-2016**

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| **Course Information** | | | | | **Faculty Information** | | | |
| **Course Code:** | | SNA EL 1 | | | **Name:** | | | Luke Nigel J. Laylo |
| **Course Title:** | | Linux Server Administration | | | **Office:** | | | Department of Computer Engineering |
| **Credit Units:** | | 1 unit | | | **Email:** | | | *lukelaylo@gmail.com* |
| **Pre-requisites:** | |  | | | **Phone:** | | | (032) 230-0100 loc. 263 |
| **Schedules:** | | 12:30 PM-04:30 PM Sat Rm: LBCEA2TC | | | **Consultation Time:** | | | 10:30 am – 01:30 pm MTW |
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| **Course Description** | | | | | | | | |
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| **COURSE OUTCOMES (CO)** | | | | | | | | |
| *By the end of the semester, students should be able to:*  **CO1:** Apply basic and advance concept of scripting to linux-based and windows-based server administration  **CO2:** Analyze scripts in order to achieve efficiency of server administration task  **CO3:** Design a fully functional client-server administration based on a proposed project plan using virtual setup environment | | | | **Alignment to Program Outcomes** | | | | |
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| **ASSESSMENT OF OUTCOMES** | | | | | | | | |
| As evidence of having achieved the outcomes, students must produce quality outputs and/or carry out tasks successfully. | | | | | | | | |
| **Formative**  For **CO2**: Laboratory Exercises  For **CO3**:Programming Exercises | | | | **Summative (Rubric-Based)**  For **CO1:** Practical Exam  For **CO2**: Compilation of Laboratory Exercises  For **CO3**: Presentation of Project with Documentation | | | | |
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| **Assessment Rubrics (See attached.)**  Rubric 1: Assessing and Grading of Practical Exam  Rubric 2: Assessing and Grading of Laboratory Exercises  Rubric 3A: Assessing and Grading of Project Documentation  Rubric 3B: Assessing and Grading of Project Presentation | | | | | | | | |
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| **Grading System**  The student’s grade for the course is computed based on both formative and summative assessment data. The computation is detailed below. | | | | | | | | |
| **Grade Component Weight**  *Practical Exams* (50%)  Midterm Exam (20%)  Final Exam (30%)  Compilation of Laboratory Exercises (30%)  Project Documentation and Presentation (20%) | | | | **Computation**  *Practical Exams x 0.50* Midterm Exam x 0.20  Final Exam x 0.30  Compilation of Programming Exercises x 0.30  Documented Solution of Software Application x 0.20  Total **Grade**  **Passing Grade:3.0**  **Condition for Passing:** Specific conditions regarding grades in summative assessment tasks | | | | |
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| **LEARNING PLAN** | | | | | | | | |
| **Course Outcome** | **Topics** | | | | | **Week** | **Learning Activities** | |
| **CO1** | Introduction to the Course  **Unit I. Introduction to Windows scripting:**  *Batch Files*   * DOS shell commands * Windows administrative commands | | | | | 1-2 | Open Forum  Lecture/Discussion  Demonstration  Lab exercises | |
| **Unit II. Introduction to Windows scripting:**  *VBScript fundamentals*   * Variables, data types * Procedures and functions * Conditions and Loops | | | | | 4-5 | Lecture/Discussion  Demonstration  Lab exercises | |
| **CO2** | **Unit III. Introduction to Linux scripting**  *Introduction to Script interpreters*   * Bash * Sh * php | | | | | 5-6 | Lecture/Discussion  Demonstration  Lab exercises | |
| **Midterm Exam** | | | | | 7 |  | |
| **Unit IV.Scripting Fundamental**  *Scripting using Bash*   * Variables * Conditions * Loops * Exit Code * Linux commands, pipes, input/output redirection | | | | | 8-10 | Lecture/Discussion  Demonstration  Lab exercises | |
| **Unit IV. Scripting Fundamental**  *Scripting using PHP*   * Creating PHP scripts | | | | | 11-13 | Lecture/Discussion  Demonstration  Lab exercises | |
|  | **Final Exam** | | | | | 14 |  | |
| **CO3** | **Project Making:**   * Groupings for final project * Start of project Discussion * Project Documentation * Presentation of Project | | | | | 15-18 | Brain Storming: Identification of the problem and its solution.  Compilation of Documents  Presentation of Project | |
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| **Learning Resources** | | | | | | | | |
| **Books**  Mark E. Russinovich, David A. Solomon Microsoft® Windows® Internals, Fourth Edition: Microsoft Windows Server™ 2003, Windows XP, and Windows 2000: Microsoft Press  William R. Stanek Microsoft Windows Command-Line Administrator's Pocket ConsultantTimothy: Microsoft Press © 2004  Ken O. Burtch Linux Shell Scipting with Bash: Team Ling  Dave Taylor Wicked Cool Shell Scripts: 101 Scripts for Linux, Mac OS X, and Unix Systems: No Starch Press © 2004  Wale Soyinka Linux Administration: A Beginner’s Guide, Fifth Edition: McGraw - Hill/Osborne**Online Resources**  Use of online resources (e-books, tutorials, presentations, videos, lectures, and other supplementary materials) regarding further discussions on visual basic for application is encouraged. | | | | | | | | |
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| **Course Policies** | | | | | | | | |
| * **Project Group/Teams**   You are to form a four-member in each project group. As a team, you are expected to help each other achieve the expected learning outcomes for the course. However, during the presentation each must answer questions thrown to him/her from the panel and be graded accordingly. Cases of copying shall be dealt with following the university’s procedures for disciplinary actions. Note that the university considers dishonesty or any fraudulent act as a major offense. Thus, make sure that you do your own work and that you protect them from plagiarism by others.   * **Attendance and Tardiness**   You are expected to attend all classes. The USC Student Manual (2013 Edition) stipulates that “a student who incurs unexcused absences of more than 20% of the prescribed number of class hours or laboratory periods during the term should be given NC or 5.0.” A 3-unit course has 48 class hours and a 1-unit laboratory course has 16 laboratory periods. You do the math.  Tardiness is highly discouraged and habitual tardiness will not be condoned. Appropriate sanctions for tardiness will be given based on agreement reached during a one-on-one conference between you and me. If you come late to class, silently make your way to your seat without disrupting ongoing activity and approach me at the end of the class to have your attendance checked.   * **Use of Gadgets in Class**   Gadgets should only be used in class in aid of learning. It’s allowable that you go online in the classroom if you want to find out more about something on the topic being taken up. In no way that you are allowed to use your gadgets in class to do social networking, games, or other activities that have no direct bearing on the ongoing class activity. You may take pictures of what is written on the board but only after I expressly announce when you can do it. At all times, set your gadgets on silent mode.   * **Examinations**   Note that there are one (1) written exam and two (2) practical exams that you must take during the semester. In case you missed an examination due to serious medical condition or emergency reasons, you must make a formal written request to take a special examination. "EMERGENCY shall be understood as an unforeseen combination of circumstances which calls for an immediate response to an urgent need for assistance or relief.” Pertinent supporting documents must be attached to your letter of request. Otherwise, a grade of 5.0 will be recorded on that missed examination.   * **Consultation**   My consultation periods are indicated in this syllabus. Should you wish to consult with me on matters pertaining to your achievement of the learning outcomes, you can inform me through email at least 24 hours before. Please indicate in clear terms what you wish to consult with me. You may do so individually or as a team/group.   * **Communication**   All course-related communications outside of class should be done through email. I will post on our prescribed website supplementary learning materials, announcements, instructions, and the like through this method so make sure you regularly check the website. | | | | | | | | |
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| Prepared by | | |  | Approved by | | | |  |
| **Luke Nigel J. Laylo**  Faculty | **Engr. Antoniette P. Mondigo, MEng.**  Department Chair |
| Date Submitted for Approval | | | **Nov. 21, 2015** | Date Approved | | | |  |

SNA EL 1 – Linux Server Administration

**ASSESSMENT & GRADING RUBRICS**

**Rubric 1. Assessing and Grading of Practical Exam (CO1)**