

Course Title: IST106 Spreadsheet Software

Course Leader: Trudy Gift

Expected Learning Outcomes for IST106 Spreadsheet Software

- Use Excel software in a variety of business and organizational settings to make calculations on financial and statistical data and present the results in a manner that is informative, documented, and useful to the reader.

Assessment

(How do students demonstrate achievement of these outcomes?)

Assigned projects are graded using rubrics developed by the certified professionals based on topics found on the certification exam (MCAS – Microsoft Certified Application Specialist).

Exams are spreadsheets, developed by the instructor, based on the assigned projects and graded on a rubric based on standards developed by Microsoft Office Specialist.

Students are required to complete a tutorial, project and exam for each of the 9 chapters. In addition, there is a critical thinking exam administered at the end of the semester which is 25 scenarios with two multiple choice questions for each scenario. These are what-if questions and not application in nature (as are the projects and exams). Students are permitted to use their textbook, Internet, notes.

Validation

(What methods are used to validate your assessment?)

The course is taught using a Microsoft Certified Application Specialist approved courseware.

Microsoft Office Application Specialist Exam Expert standards were reviewed for course content to be sure they mapped to the outcomes in this course.

Microsoft Certified Application Specialist Exam Map

| Using Microsoft Office Excel 2010 Exam Correlation | |
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| Objective | Reference |
| 1. Creating and Manipulating Data | |
| 1.1. Insert data using AutoFill | EX 131-135 |
| 1.2. Ensure data integrity | EX 360 EX 409 EX 412-413 |
| 1.3. Modify cell contents and formats | EX 74-76 |
| 1.4. Change Worksheet Views | EX 41 EX 220-221, EX 308 EX C2-C3 |
| 1.5. Manage worksheets | EX 35-36 EX 94-95 EX 287 |
| 2. Formatting Data and Content | |
| 2.1. Format worksheets | EX 61-63 |

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| | EX 186 EX 682-685 EX D22-D24 |
| 2.2. Insert and modify rows and columns | EX 16-21 EX 26 EX 67 EX 95 |
| 2.3. Format cells and cell content | EX 66-71 EX 76-78 EX 190 EX 310 EX A8 |
| 2.4. Format data as a table | EX 71 EX 85 EX 221-224 EX 227 EX 240-241 |
| 3. Creating and Modifying Formulas | |
| 3.1. Reference data in formulas | EX 114-120 EX 396-401 EX 503-505 |
| 3.2. Summarize data using a formula | EX 32 EX 122 |
| 3.3. Summarize data using subtotals | EX 242-243 EX 376-378 |
| 3.4. Conditionally summarize data using a formula | EX 367-372 |
| 3.5. Look up data using a formula. | EX 355-358 |
| 3.6. Use conditional logic in a formula | EX 340-343 EX 352 EX 365 EX 674 |
| 3.7. Format or modify text using formulas | EX A3 EX A6-A10 |
| 3.8. Display and print formulas | EX 44 |
| 4. Presenting Data Visually | |
| 4.1. Create and format charts | EX 169 EX 180-183 |
| 4.2. Modify charts | EX 166-167 EX 177-183 |
| 4.3. Apply conditional formatting | EX 86-94 EX D6-D16 |
| 4.4. Insert and modify illustrations | EX 200-201 EX D16-D21 |
| 4.5. Outline data | EX 244-245 EX 283 |
| 4.6. Sort and filter data | EX 229 EX 234 EX 238-239 |
| 5. Collaborating and Securing Data | |
| 5.1. Manage changes to workbooks | EX 418-420 |

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| | EX C8-C12 |
| 5.2. Protect and share workbooks | EX 414-417 EX C5-C7 |
| 5.3. Prepare workbooks for distribution | EX C14-C23 |
| 5.4. Save workbooks | EX 318 EX 321 EX 440 EX 685-687 EX A2 EX A16 |
| 5.5. Set print options for printing data, worksheets and workbooks | EX 42-45 EX 95-99 EX 686 |

Results

(What does the data show?)

The course requires 3 projects be completed for each of the 9 chapters. This is a total of 27 Excel spreadsheets that students are creating and being graded on a rubric by the instructor. In the Spring 2014 semester, there were two classes with a total of 24 students. The final results did not include 4 walk-away F's.

The online class average was 82.3 with 15 student successfully passing the course. This includes any score above 60%. The hybrid class had 5 students with an overall average of 85.6%. There were no scored in the 60 percentile.

While there is a large requirement on the student's time, they will know how to set up an Excel worksheet according to industry standards. All assignments must be graded by the instructor by hand-on (submitted online with a zipped folder attached to an email).

Follow-up

(How have you used the data to improve student learning?)

All labs on campus are Office 2013 with Excel 2013 being used in the courses.

Based on the amount time required to score 27 projects per students, the instructor has decided to use Learning Management Software since the size of the class is projected to rise. The software will be available to the students when they purchase the textbook. The software is being tested this summer (2014).

Peer tutors were used extensively for this course (both in the classroom and in the Learning Support Center) and will be continued. The instructor of the course is responsible for recommending tutors.

The instructor is also holding additional working/group training sessions outside of the scheduled classes. Attendance last semester was low (3 out of 16); however, it will be used again.

Budget Justification

(What resources are necessary to improve student learning?)

Tutoring hours need to be increase and there needs to be an IST person full-time.