**Common Rubric Criteria for ITCO 321**

**Expectations:** Student work at the undergraduate level is expected to focus on a broad overview of an academic discipline, along with—where appropriate— basic theoretical frameworks of professional practices and familiarity with discipline‐specific tools and their application. Blooms taxonomy levels only apply for IT content criteria.

*Version 5.0 – October 2017*

*DNS = Did Not Submit N/A = Not Applicable to Assignment*

**IT Content Criteria**

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| **IT Content Criteria** | **Exemplary (5)** | **Accomplished (4)** | **Proficient (3)** | **Partially Proficient (2)** | **Unacceptable (1)** |
| **Blooms Taxonomy Level** | **Analysis** | **Application** | **Comprehension** | **Knowledge** | **Knowledge** |
| **Software Analysis and Development**  **Programming Fundamentals for Development**  *[PROG FUND DEVELOPMNT]* | Demonstrates complete understanding of programming concepts and principles such as algorithm design, problem solving, fundamental data structures, programming constructs, object‐oriented principles and event‐driven programming. A comprehensive understanding of concepts and principles is shown by application of design and analysis concepts, methodologies and tools. The program works and meets all of the specifications exceptionally well. The code is remarkably well organized, modular, efficient and readable with appropriate comments. | Demonstrates sound understanding of programming concepts and principles such as algorithm design, problem solving, fundamental data structures, programming constructs, object‐oriented principles and event‐driven programming. A thorough understanding of concepts and principles is shown by application of design and analysis concepts, methodologies and tools. The program works and meets all of the specifications. The code is effectively well organized, modular, efficient and readable with appropriate comments. | Demonstrates adequate understanding of programming concepts and principles such as algorithm design, problem solving, fundamental data structures, programming constructs, object‐oriented principles and event‐driven programming. An adequate understanding of concepts and principles is shown by application of design and analysis concepts, methodologies and tools. The program works but only meets requirements, not all specifications. The code is adequately readable but not well commented, somewhat repetitive or unnecessarily long. | Demonstrates a superficial understanding of programming concepts and principles such as algorithm design, problem solving, fundamental data structures, programming constructs, object‐oriented principles and event‐driven programming. Student does not demonstrate an adequate understanding of the principles of design and analysis. The program does not execute correctly and does not produce the required output, but it minimally meets some of the requirements. The code is difficult to read, repetitive, insufficiently commented, or unnecessarily long. | Demonstrates a lack of understanding of programming concepts and principles such as algorithm design, problem solving, fundamental data structures, programming constructs, object‐oriented principles and event‐driven programming. The program does not execute correctly and does not produce the required output, nor does it meet a satisfactory number of requirements. The code is difficult to read, repetitive, insufficiently commented, or unnecessarily long. |

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| **Blooms Taxonomy Level** | **Analysis** | **Application** | **Comprehension** | **Knowledge** | **Knowledge** |
| **Software** **Analysis** **and Development**  **Integrative Programming & Technologies** | Demonstrates complete understanding of System integration and software architecture concepts and principles such as Software Security Practices, Scripting Techniques, Inter‐ systems communications, and programming languages.  A comprehensive understanding of concepts and principles is shown by  planning, applying and controlling the  process of system integration concepts and methodologies, including testing each software components and combining them into a well-integrated product. The system integration process is exceptionally demonstrated, very easy to identify and follow, and meets all of the specifications exceptionally well. The software architecture and integration process is flexible and remarkably efficient and well organized. | Demonstrates sound understanding of System integration and software architecture concepts and principles such as Software Security Practices, Scripting Techniques, Inter‐Systems communications, and programming languages.  A thorough understanding of concepts and principles is shown by planning, applying and controlling the process of system integration concepts, and methodologies including testing each software components and combining them into an effectively integrated product. The system integration process is meticulously demonstrated, easy to identify and follow, and meets all of the specifications well. The software architecture and integration process is flexible and effectively efficient and well organized. | Demonstrates adequate understanding of system integration and software architecture concepts and principles such as Software Security Practices, Scripting Techniques, Inter‐systems communications, and programming languages.  An adequate understanding of concepts and principles is shown by planning, applying and controlling the process of system integration concepts and methodologies, including testing each software components and combining them into an effectively integrated product. The system integration process is sufficiently demonstrated, fairly easy to identify and follow, and satisfactorily meets all of the specifications. The software architecture and integration process is objectively flexible and effectively efficient and organized. | Demonstrates a superficial understanding of system integration and software architecture concepts and principles such as software security practices, scripting techniques, inter‐systems communications, and programming languages.  Student does not demonstrate an adequate understanding of concepts and principles through planning, applying and controlling the process of system integration concepts and methodologies including testing each software components and combining them into a fairly integrated product. The system integration process is insufficiently demonstrated, difficult to identify and follow, and minimally meets some of the requirements.  *(continued on page 3)* | Does not demonstrate an acceptable understanding of System integration and software architecture concepts and principles such as software security practices, scripting techniques, inter‐systems communications, and programming languages.  Student does not demonstrate an understanding of concepts and principles through planning, applying and controlling the process of system integration concepts  and methodologies, including testing each software components and combining them into an acceptably integrated product. The system integration process is not demonstrated, very difficult to identify and follow, and does not meet a satisfactory number of requirements, is neither flexible nor efficient, nor is it organized. |

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| **Blooms Taxonomy Level** | **Analysis** | **Application** | **Comprehension** | **Knowledge** | **Knowledge** |
| **Integrative Programming & Technologies**  ***(continued)*** |  |  |  | The software architecture and integration process is neither flexible nor efficient, nor is it organized. |  |

**General Education Criteria**

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| **General Education**  **Criteria** | **Exemplary (5)** | **Accomplished (4)** | **Proficient (3)** | **Partially Proficient (2)** | **Unacceptable (1)** |
| **COMMUNICATION**  Create documents and/or deliver presentations in standard academic English that reflect mature, well-considered ideas, arguments, and information using appropriate media, methods, subjects, and technology. | Demonstrates language use that clearly and effectively communicates mature, well-considered ideas, arguments, and information.  Organization is clear.  Presentation and delivery are confident and persuasive (where applicable).  Audience, style, tone, and perspective are consistent and appropriate to assignment.  No errors in grammar, spelling, and sentence structure.  Documents or presentations use appropriate media, methods, subjects, and technology. | Demonstrates language use that communicates mature, well-considered ideas, arguments, and information, with minor errors.  Organization is apparent and mostly clear.  Presentation and delivery are mostly confident and persuasive (where applicable).  Audience, style, tone, and perspective are mostly consistent and appropriate to assignment.  Minor errors in grammar, spelling, and sentence structure.  Documents or presentations use mostly appropriate media, methods, subjects, and technology. | Demonstrates language use that generally communicates mature, well-considered ideas, arguments, and information, it sometimes impedes meaning.  Organization is lacking and sometimes unclear.  Presentation and delivery are developing, with some lack of confidence and persuasion (where applicable).  Audience, style, tone, and perspective are sometimes inconsistent or inappropriate to assignment.  Errors in grammar, spelling, and sentence structure sometimes distract meaning or presentation.  Documents or presentations mostly use appropriate media, methods, subjects, and technology. | Demonstrates language use that often impedes the communication of mature, well-considered ideas, arguments, and information.  Organization is inadequate, confusing, and distracting.  Presentation and delivery are inadequate, lacking confidence and persuasion (where applicable).  Audience, style, tone and perspective are often inconsistent and inappropriate to assignment.  Frequent errors in grammar, spelling, and sentence structure often distract from meaning or presentation.  Documents and/or presentations often use inappropriate media, methods, subjects, and technology. | Demonstrates language use that does not clearly and effectively communicate mature, well-considered ideas, arguments, and information.  Organization is not apparent.  Presentation and delivery are unacceptable with little or no confidence and persuasion (where applicable).  Audience, style, tone, and perspective are inconsistent and inappropriate to assignment.  Frequent errors in grammar, spelling, and sentence structure often distract from meaning or presentation.  Documents or presentations use inappropriate media, methods, subjects, or technology. |

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| **General Education Criteria** | **Exemplary (5)** | **Accomplished (4)** | **Proficient (3)** | **Partially Proficient (2)** | **Unacceptable (1)** |
| **CRITICAL THINKING** Synthesize different ideas, beliefs, perspectives, and approaches in the process of arriving at conclusions or solutions (includes ethical reasoning and awareness of cultural diversity)**.** | Demonstrates outstanding or exemplary ability to integrate different ideas, beliefs, perspectives and approaches in the process of arriving at conclusions or solutions as required by the assignment (includes issues related to ethical questions)  Demonstrates outstanding or exemplary ability to proactively seek and incorporate multiple and diverse perspectives when working with one’s own and other cultures (as applicable). | Demonstrates clear ability to integrate different ideas, beliefs, perspectives and approaches in the process of arriving at conclusions or solutions as required by the assignment (includes issues related to ethical questions).  Demonstrates clear ability to seek and incorporate multiple and diverse perspectives when working with one’s own and other cultures (as applicable). | Demonstrates adequate or proficient ability to integrate, different ideas, beliefs, perspectives and approaches in the process of arriving at conclusions or solutions as required by the assignment (includes issues related to ethical questions).  Demonstrates adequate ability to seek (when instructed), and incorporate multiple and diverse perspectives when working with one’s own and other cultures (as applicable). | Demonstrates inadequate or partially proficient ability to integrate, different ideas, thoughts, perspectives and approaches in the process of arriving at conclusions or solutions as required by the assignment (includes issues related to ethical questions).  Demonstrates partially proficient ability to incorporate multiple and diverse perspectives when working with one’s own and other cultures (as applicable). | Demonstrates limited ability to integrate different ideas, thoughts, perspectives and approaches in the process of arriving at conclusions or solutions as required by the assignment (includes issues related to ethical questions).  Demonstrates limited ability to incorporate multiple and diverse perspectives when working with one’s own and other cultures (as applicable). |
| **QUANTITATIVE REASONING**  Present solutions, in a variety of formats, to quantitative problems from a wide array of authentic contexts and everyday life situations. | Demonstrates outstanding or exemplary ability to apply the principles and methods of mathematics to solve quantitative problems. Provides accurate and comprehensive interpretation/analysis of quantitative information.  Presents solutions in format/s ideal to the context and situation. | Demonstrates clear ability to apply the principles and methods of mathematics to solve quantitative problems.  Provides accurate interpretation/analysis of quantitative information.  Presents solutions in format/s especially suited to the context and situation. | Demonstrates adequate or proficient ability to apply the principles and methods of mathematics to solve quantitative problems.  Provides mostly accurate interpretation/analysis of quantitative information.  Presents solutions in format/s appropriate to the context and situation. | Demonstrates inadequate or partially proficient ability to apply the principles and methods of mathematics to solve quantitative problems. Provides partially accurate interpretation/analysis of quantitative information.  Presents solutions in format/s somewhat appropriate to the context and situation. | Demonstrates limited ability to apply the principles and methods of mathematics to solve quantitative problems. Provides inaccurate or incorrect interpretation/analysis of quantitative information.  Presents solutions but the format used is not a good fit to the context and situation. |