Cat 1: 6112 Software Requirements Specification Project Rubric

|  | **Unacceptable**  **1** | **Beginning**  **2** | **Adequate**  **3** | **Accomplished**  **4** | **Expert**  **5** |
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| Document Organization | No template used, information appears random, outline not discernable, confusing numbering scheme | Template employed, outline present, but improper or disorganized subdivisions. Information does not flow logically. | Outline provides clarity, reader guided through information but not enough detail. Readers have to search for answers to their questions. | Information can be easily found, figures and tables used properly, duplication and redundancy minimized. | Different stakeholder groups can locate answers to their questions efficiently. Clear and logical flow of information, maintaining the information will be easy. |
| Clarity of Expression | Confusing, ambiguous, or contradictory narratives. | Missing requirements, reading raises questions rather than provides answers. | All requirements present, some questions must still be answered, a few readers do not come to shared understanding. | No questions arise after reading, some details may still need to be determined, most readers have a shared understanding. | All readers have shared understanding, sufficient details for solution development to begin. |
| Required Elements | Missing functional requirements, requirements do not logically flow from use cases or models. | All functional requirements present. Some inconsistencies between use cases and models may be present. | Both functional and non-functional requirements present but not necessarily complete and detailed. Use cases and models provide clarity. | Requirements complete and sufficiently detailed to begin solution design, additional elements such as constraints, risks, and priorities included. | Priorities established, quality attributes, glossary, and traceability matrices included. |
| Implementation Independence | Includes design details, specific technologies cited, solution choices completely constrained by technology. | Fewer design details but still too many, analyst shows basic understanding of abstraction in requirements. | Minimum design features, most requirements expressed in abstract terms. | Only technologies required by stakeholders have been included, minimum solution constraints. | Highly abstract, concentration on user tasks instead of technology solutions, maximum freedom for design. |
| Supporting Models | Models missing completely or do not conform to known structures and rules. Models confuse rather than clarify. | Inconsistent or contradictory models, important details missing, further development needed to become useful. | Some major system components modeled, standards correctly applied, starting point for solution development but questions remain. | Most major system components depicted, only minor clarification needed to begin solution development. | All system components depicted, models are mutually supportive, completely adequate to begin solution development. |
| Supporting Use Cases | Use cases missing or in a non-standard format | Proper format but missing stakeholder groups, missing functionality, inadequate to begin solution design. | Major stakeholders represented, major functions depicted, sufficient to begin rough solution design. | Most stakeholders represented, most functionality present, questions may remain concerning some elements of system performance | All stakeholder groups represented, all functionality present, developers will understand the user tasks the system must support in sufficient detail. |

Cat 2: 6112 Software Design Specification Rubric

|  | **Beginning**  **1** | **Struggling**  **2** | **Developing**  **3** | **Accomplished**  **4** | **Exemplary**  **5** |
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| Understands Requirements | Student’s work shows incomplete understanding of requirements | Student’s work shows slight understanding of requirements | Student’s work shows understanding of most requirements | Student’s work shows complete understanding of all requirements | Student recognizes potential conflicts b/t requirements and seeks clarification from client/user |
| Selects Appropriate Data Structures | No use of ADTs (aggregate data types/structures) | Use of ADTs, but none are appropriate for task | Use of ADTs; but some are not most appropriate for task | Use of ADTs; all are appropriate for task | Uses advanced ADTs that optimize performance |
| Selects Appropriate Algorithms | Student gives no thought to algorithm design | Student chooses/ designs algorithm(s) that are incorrect | Student chooses/ designs algorithm(s) that is/are correct but somewhat inefficient | Student chooses/ designs efficient algorithm(s) | Student researches tradeoffs b/t different algorithms and justifies choices. |
| Modularizes Solution | Control flow design is totally sequential | Control flow design is mostly sequential | Some design modularity is used | Design is completely modularized | Employs advanced concepts (e.g. optimal inheritance / reuse) |
| Designs Appropriate User Interface | Poor UI design | Only basic UI design | Some best-practice UI concepts used | Best-practice UI concepts prevalent in design | UI proof-of-concept disposable prototype evaluation |
| Testing Plan | No evidence of any testing plan by student | Evidence of only limited test case specification. | Evidence of typical test cases specified, but only assuming valid inputs | Testing plan specifies appropriate boundary conditions and checks for input validity & output correctness | Robust testing plan design with testing instrumentation and exception handling design |
| Design Documentation | No documentation. | Little or no documentation. | Some documentation. | Complete documentation | Comprehensive documentation including additional references and context |

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| Cat 3: Rubric for ITCS 6112 Oral Presentation | | | | | |
|  | **Poor** | **Needs Improvement** | **Acceptable** | **Good** | **Excellent** |
| **1** | **2** | **3** | **4** | **5** |
| Body Language | No movement or descriptive gestures. | Very little movement or descriptive gestures. | Movements are simple and not a detraction from presentation | Made movements or gestures that enhanced articulation. | Movements seemed fluid and helped the audience visualize. |
| Eye Contact | No eye contact with audience. | Displayed minimal eye contact with audience. | Eye contact good for selected groups but not yet all | Consistent use of direct eye contact with audience. | Holds attention of entire audience with the use of direct eye contact. |
| Pacing | Delivery is either too quick or too slow to meet apportioned time interval. | Delivery is in bursts and does not meet apportioned time interval. | Delivery is stiff, with little or no drama, but doesn't meet apportioned time interval | Delivery is patterned, but does not meet apportioned time interval. | Good use of drama and student meets apportioned time interval. |
| Poise | Tension and nervousness is obvious; has trouble recovering from mistakes. | Displays mild tension; has trouble recovering from mistakes. | Occasional displays of tension, and same problems recovering from mistakes | Makes minor mistakes, but quickly recovers from them; displays little or no tension. | Student displays relaxed, self-confident nature about self, with no mistakes. |
| Voice | Consistently uses a monotone voice. | Displays some level of inflection throughout delivery. | Inflection continues to improve but flexibility is still lacking | Satisfactory use of inflection, but does not consistently use fluid speech. | Use of fluid speech and inflection maintains the interest of the audience. |
| Visual Aids | No visual aids are provided | Visual aids do not assist in expressing technical content; visual aids have technical errors | Visual aids do not assist in expressing technical content | Visual aids are somewhat helpful in expressing technical content | Visual aids are helpful in expressing technical content and are attractive |
| Technical Content | Technical content has several major errors; technical content is missing; presentation of technical content is poorly organized | Technical content has a few major errors; some technical content is missing; some technical content is poorly organized | Technical content has minor errors; some technical content is missing; some technical content is poorly organized | Technical content is correct; minor problems with organization of technical content | Technical content is correct; technical content is well organized |
| Questions | Cannot answer questions about technical content | Can answer question about technical content with significant help | Can answer questions about technical content with reasonable help | Can answer questions about technical content with little help | Answers questions about technical content with no help |

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| Cat 4: Rubric for ITCS 6112 Written Project Report | | | | | |
|  | **Poor** | **Needs Improvement** | **Acceptable** | **Good** | **Excellent** |
| **1** | **2** | **3** | **4** | **5** |
| **Grammar and Spelling** | Several major grammatical errors; several misspellings | Few major grammatical errors or several minor grammatical errors; several misspellings | Several minor grammatical errors; several misspellings | Few minor grammatical errors; few misspellings | No grammatical errors or misspellings |
| **Project Overview** | No overview of the project is given | Overview of the project is muddled, missing information, or is inconsistent with the remainder of the document | Overview of the project is somewhat muddled or is missing information | Overview of the project is thorough and clear | Overview of the project is thorough and clear, and the case for its need is convincing |
| **Design Content** | Student does not have grasp of design knowledge | Student is uncomfortable with design knowledge and is able to demonstrate basic concepts. | Student seems to understand design knowledge but fails to elaborate. | Student is at ease with design knowledge and has limited elaborations. | Student demonstrates design knowledge (more than required). |
| **Project Reflection** | No reflection on project outcomes or organization is provided | Reflection on project outcomes and organization provides no insight into project success or failure | Reflection on project outcomes and organization provides little insight into project success or failure | Reflection on project outcomes and organization provides some insight into project success or failure | Reflection on project outcomes and organization provides significant insight into project success or failure |

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| Cat 5: Rubric for ITCS 6112 Teamwork | | | | | |
|  | **Poor** | **Needs Improvement** | **Acceptable** | **Good** | **Excellent** |
| **1** | **2** | **3** | **4** | **5** |
| **Student arrived on time for team meetings** | Rarely | Sometimes | Often | Usually | Always |
| **Student showed a cooperative attitude during team meetings** | Rarely | Sometimes | Often | Usually | Always |
| **Student was prepared for team meetings** | Rarely | Sometimes | Often | Usually | Always |
| **Student was respectful of other team members** | Rarely | Sometimes | Often | Usually | Always |
| **Student made meaningful contributions to team discussions** | Rarely | Sometimes | Often | Usually | Always |
| **Student made meaningful contributions to team deliverables** | Rarely | Sometimes | Often | Usually | Always |
| **Student completed individual tasks assigned by team on time** | Rarely | Sometimes | Often | Usually | Always |
| **Student's individual tasks assigned by the team are completed with a high level of quality** | Rarely | Sometimes | Often | Usually | Always |