

Evaluator _____

Student Name _____

The William States Lee College of Engineering - Ph.D. in Infrastructure and Environmental Systems (INES)

*Graduate Student Learning Outcomes: **Written Reports***

(Rev. 02/16/2012) (2nd Rev. 03/25/2013) (3^r Rev. 02/14/2018)

| GLO #1: Students analyze and evaluate advanced topics in INES | | | | |
|--|---|--|--|---|
| Score (1,2,3) | Criteria | 1 Does Not Meet Expectations | 2 Meets Expectations | 3 Exceeds Expectations |
| | OP1a: <i>Describes the scope and context of the defined problem</i> | <ul style="list-style-type: none"> Does not adequately describe the scope and context of the problem; Important details are missing | <ul style="list-style-type: none"> Adequately describes the scope and context of the problem; Sufficient level of detail is provided | <ul style="list-style-type: none"> Comprehensively describes the scope and context of the problem; Level of detail offers additional breadth, depth, and/or new insights |
| | OP1b: <i>Demonstrates existing knowledge and emerging research on the topic</i> | <ul style="list-style-type: none"> Does not adequately demonstrate knowledge of existing and emerging research on the topic; Important details are missing | <ul style="list-style-type: none"> Adequately demonstrates knowledge of existing and emerging research on the topic; Sufficient level of detail is provided | <ul style="list-style-type: none"> Comprehensively describes existing and emerging research on the topic; Level of detail offers additional breadth, depth, and/or new insights |
| | OP1c: <i>Compares and contrasts relevant interdisciplinary aspects of the topic</i> | <ul style="list-style-type: none"> Does not adequately compare or contrast relevant aspects of the topic; Important similarities or distinctions are missing | <ul style="list-style-type: none"> Adequately compares/contrasts relevant aspects of the topic; Sufficient level of similarities and distinctions are provided | <ul style="list-style-type: none"> Comprehensively compares or contrasts relevant aspects of the topic; Level of detail in similarities and distinctions offers additional breadth, depth, and/or new insights |
| | OP1d: <i>Evaluates scope of analytical methods/tools and selects the most appropriate one(s)</i> | <ul style="list-style-type: none"> Does not adequately evaluate the scope of analytical methods/tools and/or did not select the most appropriate one; Some viable options were not considered or the best was not chosen | <ul style="list-style-type: none"> Adequately evaluates the scope of analytical methods/tools and selected the most appropriate one; All obvious options were considered and the best was chosen | <ul style="list-style-type: none"> Comprehensively evaluates the scope of analytical methods/tools and selected the most appropriate one; New or optional analytical tools were also considered and the best was chosen |
| | OP1e: <i>Identifies assumptions and constraints relevant to the analytical methods or tools selected</i> | <ul style="list-style-type: none"> Does not adequately identify assumptions and constraints relevant to the analytical method selected; Important assumptions or constraints are missing | <ul style="list-style-type: none"> Adequately identifies assumptions and constraints relevant to the analytical method selected; All obvious assumptions and constraints are identified | <ul style="list-style-type: none"> Comprehensively identifies assumptions and constraints relevant to the analytical method selected; Assumptions and constraints beyond the obvious offer additional breadth, depth, and/or new insights |

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| Score (1,2,3) | Criteria | 1 Does Not Meet Expectations | 2 Meets Expectations | 3 Exceeds Expectations |
|---------------|---|---|---|---|
| | OP1f: <i>Develops an appropriate model for analysis</i> | <ul style="list-style-type: none"> Does not adequately develop an appropriate model for analysis; Important aspects of the model are missing or extraneous aspects are included | <ul style="list-style-type: none"> Adequately develops an appropriate model for analysis; All obvious aspects of the model are included and justified | <ul style="list-style-type: none"> Comprehensively develops an appropriate model for analysis; new and relevant aspects of the model offer additional breadth, depth, and/or new insights |
| | OP1g: <i>Analyzes topic beyond the previous level of coursework (BS or MS)</i> | <ul style="list-style-type: none"> Does not adequately analyze topic at the MS/PhD level; Important aspects of analysis/evaluation is missing | <ul style="list-style-type: none"> Adequately analyzes topic at the MS/PhD level; Sufficient level of analysis/evaluation is provided | <ul style="list-style-type: none"> Comprehensively analyzes topic at the MS/PhD level; level of analysis/evaluation offers additional breadth, depth, and/or new insights |
| | OP1h: <i>Evaluates topic beyond the previous level of coursework (BS or MS)</i> | <ul style="list-style-type: none"> Does not adequately evaluate topic at the MS/PhD level; Important aspects of analysis/evaluation is missing | <ul style="list-style-type: none"> Adequately evaluates topic at the MS/PhD level; Sufficient level of analysis/evaluation is provided | <ul style="list-style-type: none"> Comprehensively evaluates topic at the MS/PhD level; Level of analysis/evaluation offers additional breadth, depth, and/or new insights |
| | OP1i: <i>Interprets results within the scope and context of the defined problem</i> | <ul style="list-style-type: none"> Does not adequately interpret results within the scope and context of the defined problem; Interpretation is incomplete or lacks rationale | <ul style="list-style-type: none"> Adequately interprets results within the scope and context of the defined problem; Interpretation is complete and rational | <ul style="list-style-type: none"> Comprehensively interprets results within the scope and context of the defined problem; Interpretation is complete, rational; Offers additional breadth, depth, and/or new insights |
| | OP1j: <i>Makes appropriate recommendations and/or identifies next steps</i> | <ul style="list-style-type: none"> Does not make recommendations or identify next steps or Recommendations and next steps are not justified based on results | <ul style="list-style-type: none"> Makes recommendations and identifies next steps that are commensurate with results | <ul style="list-style-type: none"> Makes recommendations and identifies next steps beyond the scope of the project but which have other relevance |

GLO #1 SCORE: _____/30

PERFORMANCE TARGET: 24/30 (80%)

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| GLO #2: Students communicate technical information. | | | | |
|---|---|---|---|------------------------|
| Score (1,2) | Criteria | 1 Does Not Meet Expectations | 2 Meets Expectations | Exceeds Expectation |
| | OP2a: Document conforms to format specified by the Graduate School (style, font size and type, margins, spacing, pagination, numbering, and organization) | Does not conform to format specified by the Graduate School | Conforms to format specified by the Graduate School | NA |
| | OP2b: Referencing format conforms to discipline standards | Does not conform to referencing format of the discipline | Conforms to referencing format of the discipline | NA |
| | OP2c: Quality of content, organization, and coherence of writing is at a level expected of professional publications | Is not at a level expected of professional publications; needs extensive revision | Is at a level expected of professional publications with minor or no revision | NA |
| GLO #2 SCORE: _____/6 | | PERFORMANCE TARGET: 6/6 (100%) | | |
| TOTAL SCORE: _____/36 | | | | |
| PERFORMANCE TARGET: 30/36 (83%) | | | | |
| COMMENTS (required for total score < 26/36 or for any criterion with a score of 1): | | | | |