Evaluator _____   **Student Name** _____

The William States Lee College of Engineering - Ph.D. in Infrastructure and Environmental Systems (INES)
Graduate Student Learning Outcomes: **Oral Presentations**
(Rev. 02/16/2012) (2nd Rev. 03/25/2013) (3r Rev. 02/14/2018)

GLO #1: Students analyze and evaluate advanced topics in engineering				
Score (1,2,3)	*Criteria*	**1 Does Not Meet Expectations**	**2 Meets Expectations**	**3 Exceeds Expectations**
	OP1a: *Describes the* **scope** *an context of the defined problem*	• Does not adequately describe the scope and context of the problem; • Important details are missing	• Adequately describes the scope and context of the problem; • Sufficient level of detail is provided	• Comprehensively describes the scope and context of the problem; • Level of detail offers additional breadth, depth, and/or new insights
	OP1b: *Demonstrates existing* **knowledge** *and emerging research on the topic*	• Does not adequately demonstrate knowledge of existing and emerging research on the topic; • Important details are missing	• Adequately demonstrates knowledge of existing and emerging research on the topic; • Sufficient level of detail is provided	• Comprehensively describes existing and emerging research on the topic; • Level of detail offers additional breadth, depth, and/or new insights
	OP1c: *Compares and contrasts relevant interdisciplinary* **aspects** *of the topic*	• Does not adequately compare or contrast relevant aspects of the topic; • Important similarities or distinctions are missing	• Adequately compares/contrasts relevant aspects of the topic; • Sufficient level of similarities and distinctions are provided	• 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: *Evaluates scope of* **analytical** *methods/tools and selects the most appropriate one(s)*	• 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	• Adequately evaluates the scope of analytical methods/tools and selected the most appropriate one; • All obvious options were considered and the best was chosen	• 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: *Identifies* **assumptions** *and constraints relevant to the analytical methods or tools selected*	• Does not adequately identify assumptions and constraints relevant to the analytical method selected; • Important assumptions or constraints are missing	• Adequately identifies assumptions and constraints relevant to the analytical method selected; • All obvious assumptions and constraints are identified	• 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: *Develops an appropriate **model** for analysis*	• Does not adequately develop an appropriate model for analysis; • Important aspects of the model are missing or extraneous aspects are included	• Adequately develops an appropriate model for analysis; • All obvious aspects of the model are included and justified	• Comprehensively develops an appropriate model for analysis; • New and relevant aspects of the model offer additional breadth, depth, and/or new insights
	OP1g: *Analyzes topic beyond the previous level of **coursework** (BS or MS)*	• Does not adequately analyze topic at the MS/PhD level; • Important aspects of analysis/ evaluation is missing	• Adequately analyzes topic at the MS/PhD level; • Sufficient level of analysis/evaluation is provided	• Comprehensively analyzes topic at the MS/PhD level; • Level of analysis/evaluation offers additional breadth, depth, and/or new insights
	OP1h: *Evaluates topic beyond the previous level of **coursework** (BS or MS)*	• Does not adequately evaluate topic at the MS/PhD level; • Important aspects of analysis/evaluation is missing	• Adequately evaluates topic at the MS/PhD level; • Sufficient level of analysis/evaluation is provided	• Comprehensively evaluates topic at the MS/PhD level; • Level of analysis/evaluation offers additional breadth, depth, and/or new insights
	OP1i: *Interprets **results** within the scope and context of the defined problem*	• Does not adequately interpret results within the scope and context of the defined problem; • Interpretation is incomplete or lacks rationale	• Adequately interprets results within the scope and context of the defined problem; • Interpretation is complete and rational	• 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: *Makes appropriate recommendations and/or identifies next steps*	• Does not make recommendations or identify next steps **or** • Recommendations and next steps are not justified based on results	• Makes recommendations and identifies next steps that are commensurate with results	• 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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Score (1,2)	Criteria	1 Does Not Meet Expectations	2 Meets Expectations	Exceeds Expectations
	OP2a: Delivery follows a logical sequence	Lacks a logical sequence; key aspects of the project are unclear and/or lack a unified rationale	Follows a logical sequence; key aspects of the project are understood and present a unified rationale	NA
	OP2b: Delivery is appropriately paced	Does not engage audience; pace too fast or too slow	Engages the audience at an appropriate pace	NA
	OP2c: Delivery presents a convincing argument	Does not offer a convincing case; lacks substance and rationale based on scientific method	Offers a convincing case; substantive and rational based on identified method	NA

GLO #2: Students communicate technical information.

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):