

QSO 520 Midterm Case Study Guidelines and Rubric

Guidelines for Submission: Case studies form an integral part of this course. Careful analysis relevant to each case study and its questions is required. Ensure that you succinctly address the critical elements. Review the <u>Midterm Case Study</u>. Answer the questions in the Word document and complete the spreadsheet <u>Coastal</u> <u>States Case Study</u>.

| Critical Elements | Exemplary | Proficient | Needs Improvement | Not Evident (0%) | Value |
|----------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|
| Question 1: | | Formulates the problem, | Formulates the problem, | Does not formulate the | 10 |
| Application of | | develops the LP layout, uses | develops the LP layout, uses | problem, develop the LP layout, | |
| Methods, Tools, and | | appropriate formulas for | appropriate formulas for | use appropriate formulas for | |
| Techniques | | objective function and | objective function and | objective function and | |
| | | constraints, and applies Excel | constraints, and applies Excel | constraints, and apply Excel | |
| | | Solver program for finding | Solver program for finding | Solver program for finding | |
| | | solutions, producing output | solutions, producing output | solutions, producing output | |
| | | reports (100%) | reports, but with errors or gaps | reports (0%) | |
| | | | in knowledge (70%) | | |
| Question 1: Accuracy | Analysis demonstrates an | Analysis demonstrates a good | Analysis demonstrates a limited | Analysis is absent or inadequate | 10 |
| of Answer and | excellent understanding of the | understanding of the use and | understanding of the use and | and/or demonstrates no | |
| Analysis | use and limitations of linear | limitations of linear | limitations of linear | understanding of linear | |
| - | programming (100%) | programming (90%) | programming (70%) | programming (0%) | |
| Question 1: | Submission is free of errors | Submission has no major errors | Submission has major errors | Submission has critical errors | 5 |
| Articulation of | related to citations, grammar, | related to citations, grammar, | related to citations, grammar, | related to citations, grammar, | |
| Response | spelling, syntax, and | spelling, syntax, or organization | spelling, syntax, or organization | spelling, syntax, or organization | |
| | organization and is presented in | (90%) | that negatively impact | that prevent understanding of | |
| | a professional and easy-to-read | | readability and articulation of | ideas (0%) | |
| | format (100%) | | main ideas (70%) | | |
| Question 2: | | Formulates the problem, | Formulates the problem, | Does not formulate the | 10 |
| Application of | | develops the LP layout, uses | develops the LP layout, uses | problem, develop the LP layout, | |
| Methods, Tools, and | | appropriate formulas for | appropriate formulas for | use appropriate formulas for | |
| Techniques | | objective function and | objective function and | objective function and | |
| | | constraints, and applies Excel | constraints, and applies Excel | constraints, and apply Excel | |
| | | Solver program for finding | Solver program for finding | Solver program for finding | |
| | | solutions, producing output | solutions, producing output | solutions, producing output | |
| | | reports (100%) | reports, but with errors or gaps | reports (0%) | |
| | | | in knowledge (70%) | | |



| Question 2: Accuracy | Analysis demonstrates an | Analysis demonstrates a good | Analysis demonstrates a limited | Analysis is absent or inadequate | 10 |
|--|---|--|--|--|----|
| of Answer and Analysis | excellent understanding of the use and limitations of linear programming (100%) | understanding of the use and limitations of linear programming (90%) | understanding of the use and limitations of linear programming (70%) | and/or demonstrates no understanding of linear programming (0%) | |
| Question 2: Articulation of Response | Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy-to-read format (100%) | Submission has no major errors related to citations, grammar, spelling, syntax, or organization (90%) | Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas (70%) | Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas (0%) | 5 |
| Question 3: Application of Methods, Tools, and Techniques | | Formulates the problem, develops the LP layout, uses appropriate formulas for objective function and constraints, and applies Excel Solver program for finding solutions, producing output reports (100%) | Formulates the problem, develops the LP layout, uses appropriate formulas for objective function and constraints, and applies Excel Solver program for finding solutions, producing output reports, but with errors or gaps in knowledge (70%) | Does not formulate the problem, develop the LP layout, use appropriate formulas for objective function and constraints, and apply Excel Solver program for finding solutions, producing output reports (0%) | 10 |
| Question 3: Accuracy of Answer and Analysis | Analysis demonstrates an excellent understanding of the use and limitations of linear programming (100%) | Analysis demonstrates a good understanding of the use and limitations of linear programming (90%) | Analysis demonstrates a limited understanding of the use and limitations of linear programming (70%) | Analysis is absent or inadequate and/or demonstrates no understanding of linear programming (0%) | 10 |
| Question 3: Articulation of Response | Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy-to-read format (100%) | Submission has no major errors related to citations, grammar, spelling, syntax, or organization (90%) | Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas (70%) | Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas (0%) | 5 |



| Question 4: | | Formulates the problem, | Formulates the problem, | Does not formulate the | 10 |
|-----------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----|
| Application of | | develops the LP layout, uses | develops the LP layout, uses | problem, develop the LP layout, | |
| Methods, Tools, and | | appropriate formulas for | appropriate formulas for | use appropriate formulas for | |
| Techniques | | objective function and | objective function and | objective function and | |
| | | constraints, and applies Excel | constraints, and applies Excel | constraints, and apply Excel | |
| | | Solver program for finding | Solver program for finding | Solver program for finding | |
| | | solutions, producing output | solutions, producing output | solutions, producing output | |
| | | reports (100%) | reports, but with errors or gaps | reports (0%) | |
| | | | in knowledge (70%) | | |
| Question 4: Accuracy | Analysis demonstrates an | Analysis demonstrates a good | Analysis demonstrates a limited | Analysis is absent or inadequate | 10 |
| of Answer and | excellent understanding of the | understanding of the use and | understanding of the use and | and/or demonstrates no | |
| Analysis | use and limitations of linear | limitations of linear | limitations of linear | understanding of linear | |
| | programming (100%) | programming (90%) | programming (70%) | programming (0%) | |
| Question 4: | Submission is free of errors | Submission has no major errors | Submission has major errors | Submission has critical errors | 5 |
| Articulation of | related to citations, grammar, | related to citations, grammar, | related to citations, grammar, | related to citations, grammar, | |
| Response | spelling, syntax, and | spelling, syntax, or organization | spelling, syntax, or organization | spelling, syntax, or organization | |
| | organization and is presented in | (90%) | that negatively impact | that prevent understanding of | |
| | a professional and easy-to-read | | readability and articulation of | ideas (0%) | |
| | format (100%) | | main ideas (70%) | | |
| Total | | | | | |