



Northeastern University

Midterm

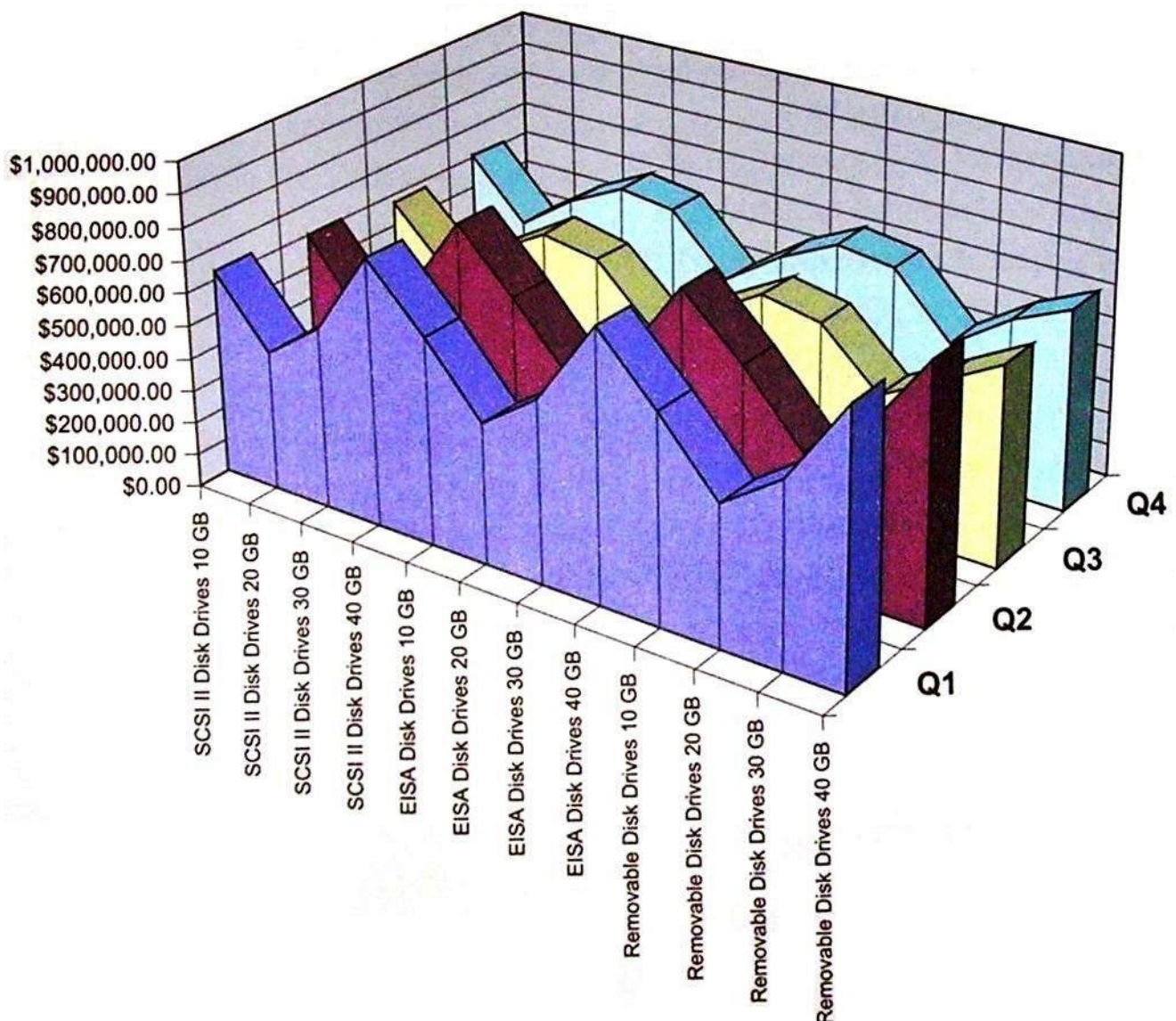
EECE 5642 Data Visualization

Midterm

Due Date: **11:59 pm, Feb. 22**

Submission: Canvas

1. Graph Critique (50/100)



This poorly designed graph shows the sales revenue in the state of Kansas associated with twelve products across the four quarters of a single year. Please finish the following three tasks.

- List each of the problems that you find in the design of this graph. (20/100)
- Suggest a solution (improvement/revision) to each of these problems. (20/100)
- Please provide your revised graph (can draw by hand). (10/100)

2. Visualization Design (50/100)

Suppose you work in a financial planning and analysis department. Your job is to report how actual quarterly expenses during the previous year compared to the budget for each of the five departments that report to the Vice President (VP) of Operations. The VP is only interested in the degree to which actual expenses deviated from budget, not the actual dollar amount. Given the following raw data, please finish the following three tasks.

- Create one or more visualization works (e.g. graphs) to show this information. (30/100)
- Explain and describe your design criteria. (10/100)
- Discuss the advantage of your design. (10/100)

Department	Q1		Q2		Q3		Q4	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual
Distribution	390,000	375,000	395,000	382,000	400,000	390,000	410,000	408,000
Facilities	675,000	693,000	800,000	837,000	750,000	713,000	750,000	790,000
Human Resources	350,000	346,000	350,000	342,000	350,000	340,000	350,000	367,000
Information Systems	950,000	925,000	850,000	890,000	875,000	976,000	900,000	930,000