MATH 256 – Data Visualization and Communication– SYLLABUS

Department of Mathematics

Millersville University

Description

This course is the continued exploration and application of data analysis techniques and
programming that allows for the cleanup, analysis, interpretation, and presentation of
business
-related data. Includes skills and applications in pre
-processing, preparing, reporting,
and presenting data for further analysis. Students will be exposed to datasets created and
managed by business organizations, and learn to ask salient strategic and operational questions
based on the information contained within the datasets. Students will analyze statistical
relations between variables, create visual depictions of the relations inherent in the data, and
communicate their findings to broad aud>dIdentify, analyze, and present data on a variety of business topics as appropriate to the
target audience, task, and data.
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Formulate relevant business questions and respond using appropriate data visualization
techniques.

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 Design effective strategies for information presentation and decision making,
individually and/or in groups.

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Apply the fundamentals of communication and alignment around concepts that are
required for effective data presentation.

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Become competent in the use of data visualization software tools in business
organizations.

Assessment

Assessment of student achievement of the course objectives will vary from one instructor to
another.
 Typical assessment will be made through work in class, homework, projects,
 and

presentations administered in a traditional face
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b)
 How to use affordances to improve visuals

c)
 How to make graphs accessible to diverse audiences

d)
 How to make aesthetically pleasing visuals and reports

7.
 Storytelling

a)
 The importance of storytelling

b)
 How to tie together visuals to create a story based on a dataset

8.
 Power BI Techniques

a)
 Power BI techniques will be interwoven into the creation of various visuals and
reports.

b)
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