A PRE-STATS BRIDGING COURSE:
Consider a new pre-statistics bridging course – a course taken before the first course on statistical inference. This bridging course excludes hypothesis tests, confidence intervals, sampling distributions and the binomial distribution.

This bridging course covers descriptive statistics and statistical modeling. The focus is on statistical association, probabilistic causation and their relationship.

The purpose of this survey is to identify the content for this course – not the pedagogy or the technical tools involved.

THE EVALUATION:
Given the goals of this course, evaluate the importance of various topics on a letter scale
(a) Most important Conceptually critical.
(b) Quite important: Fundamental, useful, and important. Good building block.
(c) Moderately important: Elective topic.
(d) Not very important. Could easily be omitted; not very relevant, useful or understandable.
(e) Do not include. Not relevant, useful, valuable or intelligible at this level.
(f) Topic is unfamiliar, ambiguous, or unintelligible to the reviewer.

THE RESULTS: Please return a copy of your survey to Milo Schield
1. in person,
2. by mail [Mail to Dept. of Business Administration, Augsburg College, Mpls, MN 55454],
3. by fax [Fax to 612: 330-1607], or
4. by email. [Key in your answers and send to schield@augsburg.edu]

Add any topics that you think should have been included:
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1. __Philosophy of Science
2. __inference: generalize, predict, etc.
3. __association vs. causation
4. __causes: determinate / probabilistic
5. __common cause (lurking variable)
6. __fishbone (causal) diagrams
7. ____ Foundations of statistics
8. __experiment vs. observational study
9. __study: cross-sectional/longitudinal
10. __study: prospective vs. retrospective
11. __control group (controlled study)
12. __control for (take account of)
13. __matching, test-retest
14. __placebo and placebo effect
15. __Hawthorne & halo effects
16. __single and double blind studies
17. __random assignment
18. __population vs. sample
19. __parameter vs. statistic
20. __bias : measurement error, etc.
21. __confounding: spurious association
22. __representative sampling/sample
23. __random sampling/sample
24. __data types: quality vs. quantity
25. __constructs (psych., sociology, etc.)
26. __reliability versus validity
27. ____ Reading count-based data
28. __exclusive and exhaustive
29. __intersection and union
30. __reading and comparing counts
31. __describing part-whole percentages
32. __creating percentages from counts
33. __comparing percentages
34. __risk and relative risk
35. __odds and odds ratio
36. __reading and comparing rates
37. ____ Interpret rates, percents, counts
38. __risk as a measure of association
39. __percentage attributable to
40. __Simpson paradox; ecological fallacy
41. __Bayes’ Rule and medical tests
42. __prosecutors fallacy
43. __over-involvement ratios
44. ____ Read/interpret quantitative data
45. __frequency distribution
46. __bar charts, histograms
47. __shape: symmetric/asymmetric/skew
48. __percentiles: calculate/compare
49. __mean and median
50. __mode and mid-range
51. __mid-interquartile range
52. __geometric mean
53. __minimum, maximum and range
54. __mean absolute deviation
55. __variance
56. __standard deviation
57. __coefficient of variation: stddev/mean
58. __inter-quartile range (IQR)
59. __skewness: 3*(mean-median)/stddev.
60. __standard deviation of binary data
61. __outlier and trimmed mean
62. __normalizing (z scores)
63. __standardizing to new mean & StdDev
64. __bell-shaped distribution: 1/2/3 rule
65. __prediction interval
66. __median overlap
67. __algebraic models of table data
68. __Log-normal & exponential
69. __Plots: quantile and quantile-normal
70. ____ Simple least-squares regression
71. __correlation
72. __slope of regression
73. __b = r * (s-sub-y)/ (s-sub-x)
74. __s_y-hat = s_y*sqrt(1 minus r-squared)
75. __Prediction and prediction interval
76. __R^2 (explanatory power of a model)
77. __regression to the mean (test/retest)
78. ____ Multivariate Analysis (& Misc)
79. __partial correlation & partial slope
80. __stepwise least-squares regression
81. __logistic regression
82. __Plot: Chance vs. Z, 2 factors (Bell Curve)
83. __cluster analysis
84. __discriminant analysis
85. __quality/reliability analysis
86. __read/interpret longitudinal graphs
87. __read/interpret cross-sectional graphs
88. __read/interpret news stories with stats.