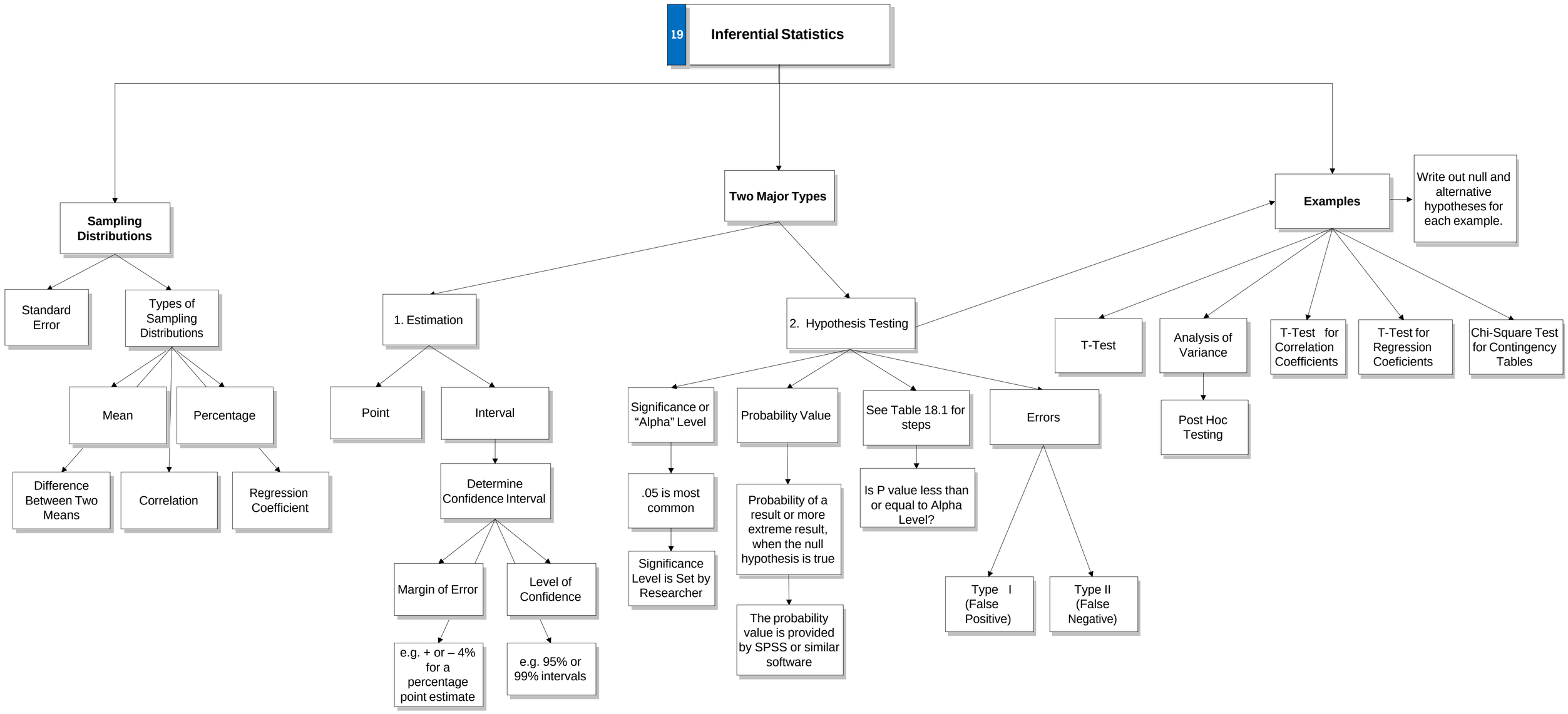
19
Inferential Statistics
Sampling Distributions
Standard Error
Types of Sampling Distributions
Mean
Percentage
Difference Between Two Means
Correlation
Regression Coefficient
Two Major Types
1. Estimation
Point
Interval
Determine Confidence Interval
Margin of Error
Level of Confidence
e.g. + or – 4% for a percentage point estimate
e.g. 95% or 99% intervals
2. Hypothesis Testing
Significance or "Alpha" Level
.05 is most common
Significance Level is Set by Researcher
Probability Value
Probability of a result or more extreme result, when the null hypothesis is true
The probability value is provided by SPSS or similar software
See Table 18.1 for steps
Is P value less than or equal to Alpha Level?
Errors
Type I (False Positive)
Type II (False Negative)
Examples
Write out null and alternative hypotheses for each example.
T-Test
Analysis of Variance
Post Hoc Testing
T-Test for Correlation Coefficients
T-Test for Regression Coeficients
Chi-Square Test for Contingency Tables