

**SESSION 6 OF**

# **STATISTICS FOR BUSINESS**

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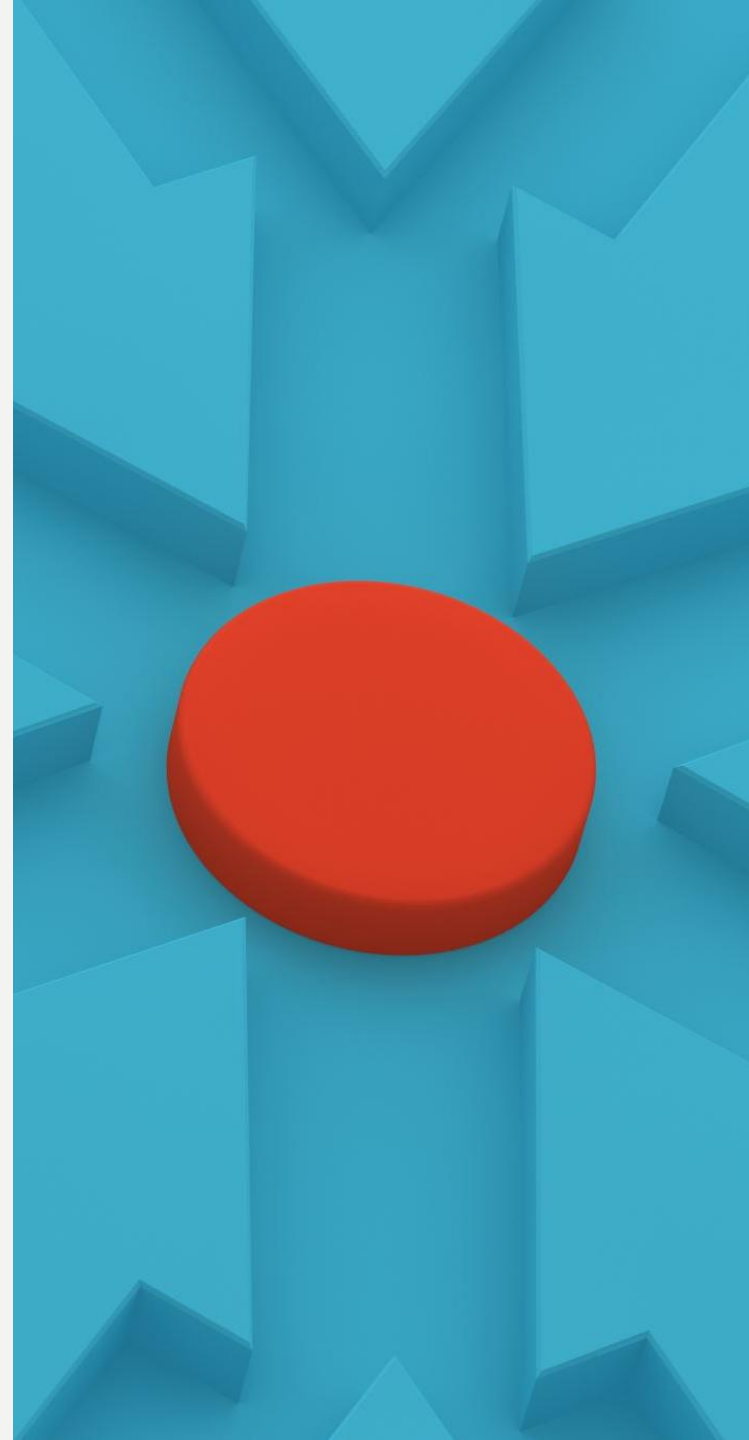
**UNIVERSIDAD DE LAS AMÉRICAS PUEBLA**



**TODAY'S TOPIC**

**INTERVAL  
ESTIMATE**

# **NORMAL DISTRIBUTION**



# **STANDARDIZATION**



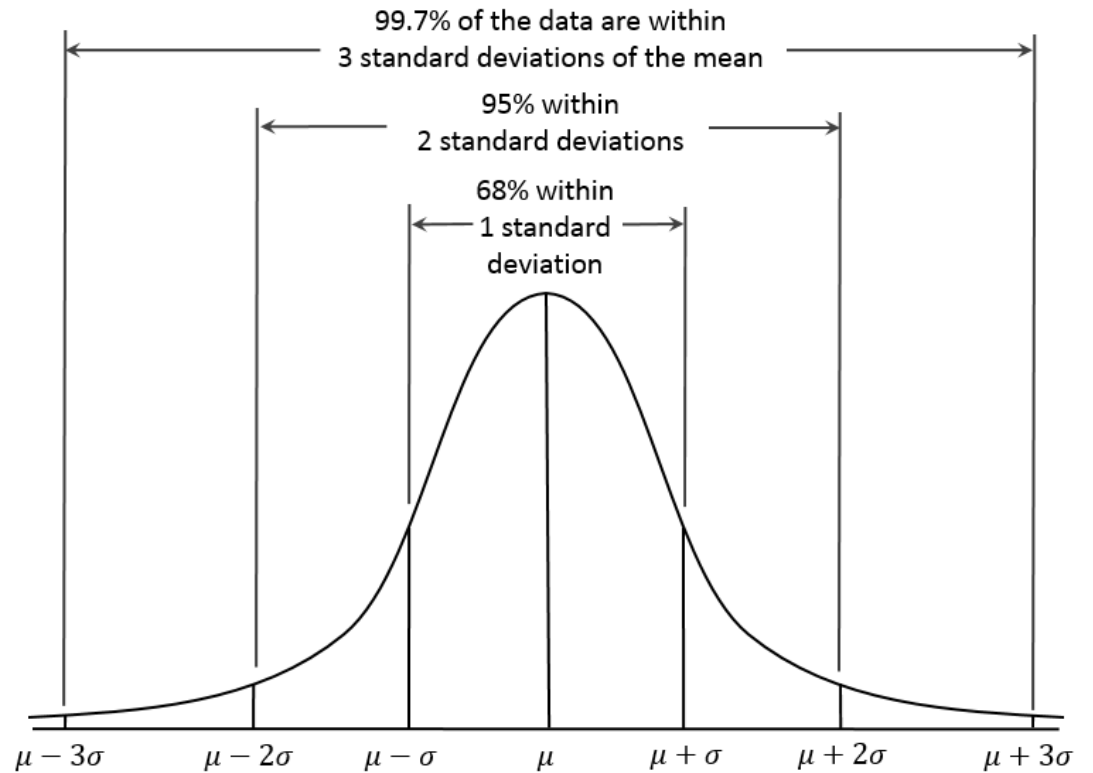
**Z-SCORE**

# STANDARD ERROR

$$\sigma_{\bar{x}} = \frac{\sigma}{\sqrt{n}}$$

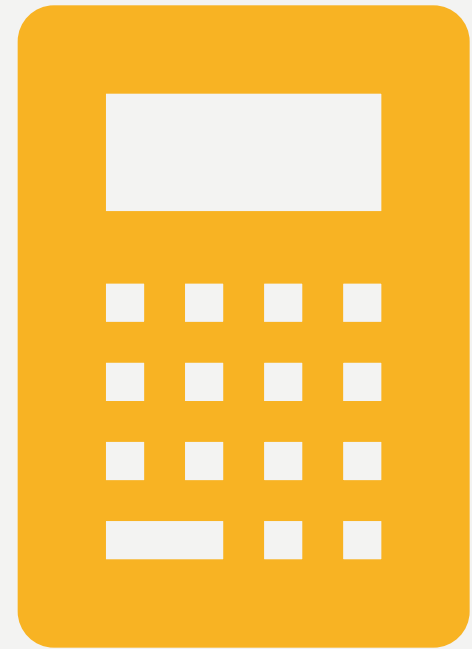
# MARGIN ERROR

$$M O E_{\gamma} = z_{\gamma} \sqrt{\frac{\sigma^2}{n}}$$



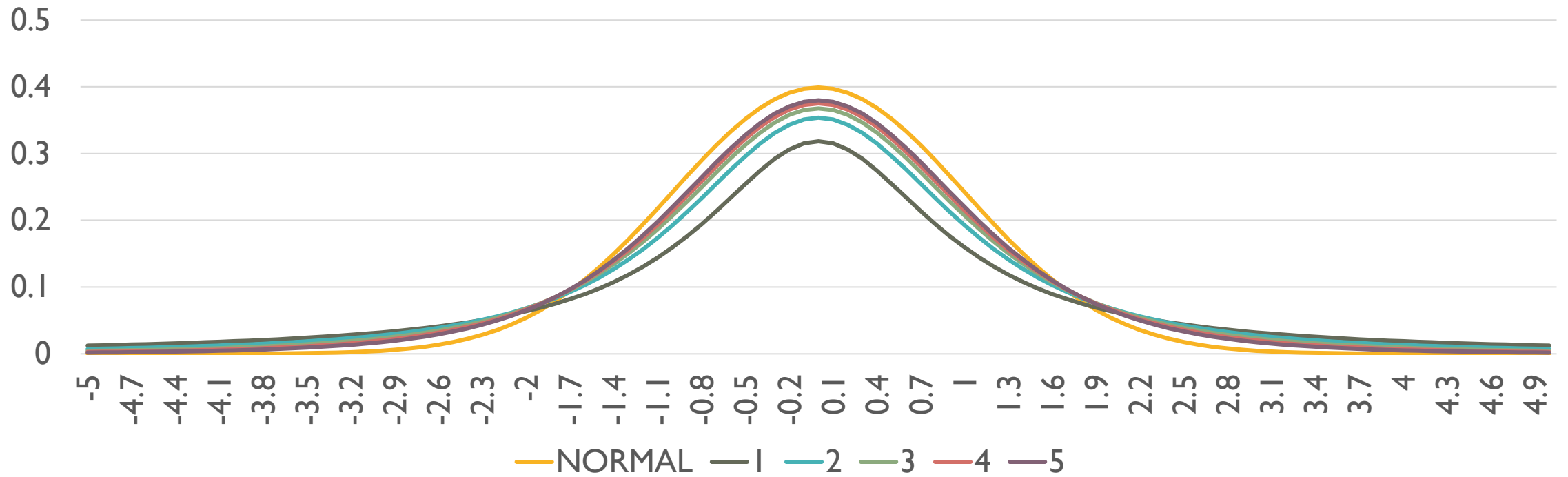
# INTERVAL ESTIMATE

$$\bar{x} \pm MOE_{\gamma}$$





Normal vs T



**STUDENT'S T-DISTRIBUTION**

# POPULATION PORTION

Standard error

$$\sigma_{\bar{p}} = \sqrt{\frac{p(1-p)}{n}}$$

Margin of error

$$z_{\gamma} \sqrt{\frac{\bar{p}(1-\bar{p})}{n}}$$

Interval estimate

$$\bar{p} \pm z_{\gamma} \sqrt{\frac{\bar{p}(1-\bar{p})}{n}}$$





**THANK YOU**