

# Advanced Statistics

Introduction	Session Format
This class will provide a greater statistics background for the professional. If SPC is a vital component of your job, this course will review the tools vital to you.	35 hours total Session format varies

## Objectives

Participants will learn and practice:

- Descriptive statistics;
- Basic probability;
- Sampling and sampling distributions;
- Confidence intervals and hypothesis tests;
- Analysis of variance; and
- Correlation and regression.

## Who Should Attend

Anyone requiring an in-depth knowledge of statistics as a basis for quality.

## Content Outline

- Descriptive statistics
  - \* mean, median, mode
  - \* frequency distributions and histogram variance and standard deviation (population and sample)
  - \* coefficient of variation, skewness, and kurtosis
- Basic Probability
  - \* binormal distribution
  - \* probability distributions
  - \* Poisson distribution
  - \* normal distribution
  - \* standard normal and z-scores
- Sampling and sampling distribution
  - \* random samples, stratified samples, rational subgroup
  - \* size of sample and frequency of sampling
  - \* sampling distribution of the mean
  - \* central limit theorem
- Confidence Intervals and Hypothesis Tests
  - \* degrees of freedom

- \* confidence intervals for means, proportions, and variances
- \* sample sizes and sampling error
- \* hypothesis tests--one and two tailed
- \* significance level
- \* F-tests, T-tests, two sample tests
- Analysis of Variance
  - \* ANOVA table
  - \* mean square and mean square error
  - \* replications
- Correlation and Regression
  - \* correlation and correlation coefficient
  - \* linear regression
  - \* multivariate regression
  - \* polynomial regression
  - \* curve-fitting

## Managing Conflict

Introduction	Session Format
<p>This workshop will focus on developing leadership skills and an understanding of the positive value of conflict. While learning win-win approaches to conflict, the participants will be using more advanced communication skills.</p>	<p>8 hours total</p> <p>Two 4-hour sessions</p> <p>or</p> <p>One 8-hour session</p>

### Objectives

Participants will (1) understand the different types and causes of conflict; (2) know their personal conflict management styles; (3) learn constructive conflict management strategies; (4) develop negotiation skills; and (5) practice win-win approaches to conflict negotiation.

### Who Should Attend

Managers, supervisors, or anyone interested in learning how to manage conflict.

### Content Outline

- Managing versus eliminating conflict--positive values of conflict in organizations
- Acknowledging personal attitudes--our attitudes impact our reactions to conflict
- Conflict Management Styles--learn the differences and the results of each
- Causes of conflict--goals, perception, terminology

- Develop negotiation styles--practice win-win approaches to conflict negotiations

## Understanding Diversity

Introduction	Session Format
<p>As a "melting pot," America has always welcomed new ideas and values. However, as our industrial society grows and continues to diversify, many of us fail to understand how diversity affects what we do and how we do it. This workshop is designed to provide participants with an understanding of how we can capitalize on diversity to help us become more productive.</p>	<p>8-12 hours total Two to three 4-hour sessions</p>

### Objectives

Participants will:

- Increase their awareness of significant differences among people;
- Learn to communicate more effectively about individual differences;
- Learn to develop leadership strategies for confronting and mediating diversity issues;
- Learn to create a work environment supporting open communication, equitable treatment, and mutual respect; and increase their ability to behaviorally support the organization's mission.

### Who Should Attend

Any/all members of an organization.

### Content Outline

- Introduction to diversity training, including a self-assessment
- Determining current levels of awareness
- Understanding goals, objectives, and definitions
- Self-introductions
- Understanding different types of individual differences – what constitutes diversity?
- Understanding the multitude of variants in diversity
- Defining verbal and nonverbal sensitivity
- Sensitivity versus "political correctness"
- Verbal and nonverbal behavior and sensitivity
- Developing communications strategies that work for your organization

- Understanding individual interpersonal needs
- Understanding the effect of behaviors
- How to build upon diversity and reward proper behaviors
- Building diversity appreciation into procedures, plans and programs
- Reinforcing and rewarding diversity appreciation

## Becoming a More Effective Leader

Introduction	Session Format
<p>Many companies often promote workers to supervisory/leadership positions, which is good for the employee and good for the company. But actually doing a job yourself and getting someone else to do something are very different situations. This course is designed for the new supervisor/leader who has little to no leadership experience or training. The goal is to provide those individuals with the interpersonal skills they need to effectively begin leading others.</p>	<p>24 hours total</p> <p>Six 4-hour sessions or</p> <p>Twelve 2-hour sessions</p>

### Objectives

Participants will (1) understand their own preferred communication style and preferred styles of co-workers, (2) understand and practice establishing and setting goals, (3) demonstrate understanding of their roles as leaders and setting examples, (4) practice conflict management techniques, (5) practice win-win negotiating, (6) understand the importance of communicating properly with employees, including (6a) establishing and communicating expectations and goals, (6b) coaching employees to reach those goals, and (6c) how to foster motivation in different individuals; (7) learn that planning is fundamental to success, (8) practice appropriate interpersonal communication skills, (9) understand the importance of shared values, and (10) understand the basics of team development.

### Who Should Attend

New supervisors and leaders within the organization.

### Content Outline

- Understanding communications styles using the Myers-Briggs Type Indicator
- It's really all about communicating effectively
  - Basic communication model — 4 forms of messages

- Perception checking
- "I" messages
- Active listening
- Understanding goals
  - "Translating" company goals into everyday and short-term tasks
  - Setting personal goals
  - Setting goals for others
- Coaching others to achieve and exceed our standards
- Focusing on behaviors – your own and theirs
  - What motivates us – Maslow, motivation, and how it fits each of us
  - Determining responsibility for, and understanding the consequences of behavior
  - Understanding the dynamics of behavior and causing the right behaviors to occur
- Conflict management
  - Defining conflict
  - Attitudes toward conflict
  - Thomas-Kilman conflict mode assessment
  - Win-win negotiating
- Calling a group a team – basics of team development
- Walking the talk — emphasizing congruence in word and deed
  - Setting the example – they believe what they see, not what you say

## Introduction to Total Quality Management

Introduction	Session Format
At the outset of a commitment to total quality, the background information must be laid. This workshop introduces participants to quality theory and traces its origins as well as provides a sampling of tools and strategies essential to a total quality environment.	20 hours total Five 4-hr sessions

### Objectives

Participants will (1) learn the historical development of TQM concepts; (2) be introduced to the basic tenets of TQM and how they can be used successfully in businesses and industries; (3) discover how to create an appropriate environment in which to successfully implement TQM; and (4) be introduced to basic TQM processes and strategies.

### Who Should Attend

Representatives from management and labor involved in the move toward continuous improvement.

### **Content Outline**

- Why TQM in a global economy? -- an historical context
- W. Edwards Deming -- the 14 points and 7 deadly diseases
- Defining the customer -- both internal and external
- Continuous Improvement Process -- the theory and the four-step cycle
- Introduction to problem-solving tools -- fishboning, flowcharting, brainstorming
- Limitations of TQM

### **Myers-Briggs Type Indicator (MBTI) Workshop**

<b>Introduction</b>	<b>Session Format</b>
If you have ever wondered why anyone might have misunderstood something you said or why other people are so unclear when asking you to do a task, this workshop may hold the answers. As the most widely used personality indicator instrument in the world, the MBTI provides a keen insight into communications styles and preferences, providing an excellent basis for understanding why - and how - we are all different. This workshop is extremely useful as a basis in training teams, supervisors, and all personnel to better understand their own tendencies and those of others.	4 hours One 4-hour session

### **Objectives**

Participants will:

- Learn how to capitalize on personal strengths and compensate for personal weaknesses
- Learn to communicate more effectively with other people whose preferences differ from their own
- Learn to apply knowledge of personality type to the work setting.

## Who Should Attend

Any/all members of an organization. This workshop is part of other courses, as well. Please contact the Community and Economic Development Center for details.

## Content Outline

- Understanding differences in perception
- Explanation of MBTI factors and what each one signifies
- Self-assessment of your own preferences
- Taking the MBTI instrument and discovering your true preferences
- Determining the validity of the instrument
- Understanding your own preferences and those of others
- Hands-on activities validating each MBTI factor
- How to apply MBTI knowledge in the workforce

## Sexual Harassment

Introduction	Session Format
This workshop focuses on identification and prevention of sexual harassment in the workplace. Participants will study the behaviors and effects of sexual harassment, and they will learn how to develop proactive policies and manage employee complaints.	3-5 hours total One 3-5 hr session Possible follow-up sessions

## Objectives

Participants will (1) learn how to identify sexual harassment in terms of behavior and effects of behavior; (2) learn how to manage sexual harassment complaints; (3) learn how to stop sexually-harassing behavior; (4) learn how to prevent sexually-harassing behavior; (5) learn legal, EEOC, and local contexts for assessing impacts of sexual harassment; and (6) develop a workable sexual harassment policy.

## Who Should Attend

Any person who would benefit from increased awareness of sexual harassment and its effects on organizational and interpersonal productivity.

## Content Outline

- Self-awareness assessment and exercises
- Videotape of school and work scenarios
- Victim's definition of sexual harassment
- Verbal and nonverbal harassment
- Legal precedents and implications
- Preventing future sexual harassment
- Developing a workable sexual harassment policy
- Individuals' responsibilities
- Managers'/Supervisors' responsibilities
- Companies'/Organizations' responsibilities
- Handling sexual harassment complaints

## TeamChallenge

Introduction	Session Format
<p>Team Challenge is an outdoor low-ropes training course consisting of trees, logs, cables, and platforms. These simple elements provide a foundation for a powerful team building experience. The team must work through a series of interactive tasks designed to build trust, enhance communications, and increase the team's problem-solving effectiveness. This course is located in a wooded area near ECC's main campus, providing a get-away-from-it-all setting for fun, adventure, and learning.</p>	<p>One 6 to 8-hour session</p>

### Objectives

Participants will (1) learn the four stages of team development, (2) learn the 8 common denominators of teams, (3) explore and practice communications in a team setting, and (4) learn and practice team problem-solving skills.

### Who Should Attend

Businesses, educational groups, professional and non-profit organizations, families, and any group desiring to become more effective as a team.

### Content Outline

#### NOTES:

1. This course involves approximately 2 hours classroom time and 4 - 6 hours on the actual challenge course.
2. All elements are negotiated using the "Challenge-by-Choice" concept. If you or anyone on the team decides that he or she does not want to negotiate a specific element, there is no negative stigma attached.
3. While the course is somewhat physical in nature, all teams can finish it.

4. Persons under 18 years of age must have parental or guardian consent prior to attending TeamChallenge.

Classroom:

- The four stages of team development - what they are and how to recognize them
- Common denominators of teams
- Meeting task and maintenance functions in teams

Challenge Course:

- Learning to operate as a team - warm-up exercises and activities
- Communicating in a team setting
- Solving problems as a team - it takes everyone
- Building trust and confidence in your team and its members