

Date: May 23, 2017

Time: 8:30am-4:30pm

Ohlone College  
Newark Center Campus  
Room 1100

# APPLIED STATISTICS (WITH EMPHASIS ON RISK MANAGEMENT) IN MANUFACTURING, R&D, AND QA/QC — BASIC

## Life Sciences/Biotechnology Workshops

**THE WORKSHOP** This one-day workshop provides an introduction to, or a review of, the most commonly used basic statistical vocabulary, concepts, and tools used in the biotech industry. The major topics covered include review of relevant regulatory requirements, basic statistical vocabulary and concepts, probability, Law of Large Numbers, distributions, standard deviation, standard error, normality, linear regression, and correlation coefficients. A working knowledge of algebra is a prerequisite, but prior statistical training is not. After finishing this workshop, the attendee will be better able to understand company SOP's on statistics, and to better com-



prehend data-analysis sections of product validation protocols/reports. This workshop provides 0.7 recertification units for those seeking or renewing ASQ CQE or RQE or similar certifications. This workshop (or equivalent training) is a pre-requisite for attending the Intermediate or Advanced classes in this workshop series.

### THE INSTRUCTOR

John Zorich has a Master's Degree in biological science from UC Davis and has a Quality Engineering Certificate from ASQ. He has worked in the biotech industry (in QA/QC, Mfg. and R&D) since 1979, and has been an independent statistical consultant and trainer to that industry since 1999. His consulting clients have included several large multi-national biotech companies as well as many Silicon Valley startups. He designs, validates, and sells statistical application software programs that have been purchased by more than 90 companies, world-wide. He has been the in-house statistical consultant and trainer since 2006 for DEKRA (one of the EU/MDD "Notified Bodies"). He has taught on-site statistical workshops for many private clients as well as for Silicon Valley ASQ Biomedical, UC Santa Cruz Extension, Silicon Valley Polytechnic Institute, and Global Compliance Panel; and he has given numerous statistical webinars through commercial on-line-training companies. He has taught this Ohlone workshop annually since 2005.

**Registration:** Enrollment fee is \$75.

<http://www.ohlone.edu/org/commed/register.html>

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Ohlone College  
Newark Center Campus  
39399 Cherry Street  
Newark CA 94560

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Questions?  
Contact  
Phone: 510-979-7952  
E-mail: [workshops@ohlone.edu](mailto:workshops@ohlone.edu)

Sponsored by the Northern California Bay Area Biotechnology Center at Ohlone College in partnership with the Life Sciences/Biotechnology initiative of the California Community Colleges Chancellors Office of Workforce and Economic Development.



Date: May 24, 2017  
Time: 8:30am-4:30pm

Ohlone College  
Newark Center Campus  
Room 1100

# APPLIED STATISTICS (WITH EMPHASIS ON RISK MANAGEMENT) IN MANUFACTURING, R&D AND QA/QC — INTERMEDIATE

## Life Sciences/Biotechnology Workshops

### THE WORKSHOP

This one-day workshop provides an introduction to, or a re-view of, the most commonly used statistical methods and tests used in the biotech industry. The major topics covered include: confidence intervals, null -hypothesis, significance, p-values, t-tests, statistical "power", confidence/ reliability calculations, tolerance limits, attribute vs. variables data calculations, normal vs. non-normal data calculations, K-tables, and normal transformations. After finishing this workshop, the attendee will be better able to comply with company SOP's on statistics, and better able to perform data analysis required by company product validation protocols/reports. This workshop provides 0.7 recertification units for those seeking or renewing ASQ CQE or RQE or similar certifications. Previous completion of the "Basic Statistics" workshop in this series (or equivalent training and/or experience) is required.



### THE INSTRUCTOR

John Zorich has a Master's Degree in biological science from UC Davis and has a Quality Engineering Certificate from ASQ. He has worked in the biotech industry (in QA/QC, Mfg. and R&D) since 1979, and has been an independent statistical consultant and trainer to that industry since 1999. His consulting clients have included several large multi-national biotech companies as well as many Silicon Valley startups. He designs, validates, and sells statistical application software programs that have been purchased by more than 90 companies, world-wide. He has been the in-house statistical consultant and trainer since 2006 for DEKRA (one of the EU/MDD "Notified Bodies"). He has taught on-site statistical workshops for many private clients as well as for Silicon Valley ASQ Biomedical, UC Santa Cruz Extension, Silicon Valley Polytechnic Institute, and Global Compliance Panel; and he has given numerous statistical webinars through commercial on-line-training companies. He has taught this Ohlone workshop annu-

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Sponsored by the Northern California Bay Area Biotechnology Center at Ohlone College in partnership with the Life Sciences/ Biotechnology initiative of the California Community Colleges Chancellors Office of Workforce and Economic Development.



Date: May 25, 2017

Time: 8:30am-4:30pm

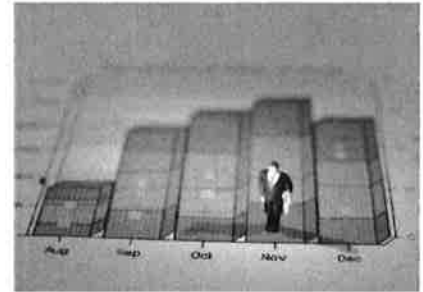
Ohlone College  
Newark Center Campus  
Room 1100

# APPLIED STATISTICS (WITH EMPHASIS ON RISK MANAGEMENT) IN MANUFACTURING, R&D, AND QA/QC — ADVANCED

## Life Sciences/Biotechnology Workshops

### THE WORKSHOP

This one-day workshop will instruct how to perform advanced reliability/confidence determinations (for use when no other method is suitable), how to choose sampling plans, how to create and use process improvement charts, and how to statistically evaluate measurement equipment capability vs. product specification requirements. The major topics covered include: Reliability Plotting, SPC (Statistical Process Control) and related "process capability" calculations, QC attribute sampling plans, and Gage R&R. After finishing this workshop, the attendee will understand how to provide the most accurate assessments of product reliability, and how to set-up and monitor product quality on an ongoing basis. This workshop provides 0.7 recertification units for those seeking or renewing ASQ CQE or RQE or similar certifications. Previous completion of the "Intermediate Statistics" workshop in this series (or equivalent training and/or experience) is required.



### THE INSTRUCTOR

John Zorich has a Master's Degree in biological science from UC Davis and has a Quality Engineering Certificate from ASQ. He has worked in the biotech industry (in QA/QC, Mfg. and R&D) since 1979, and has been an independent statistical consultant and trainer to that industry since 1999. His consulting clients have included several large multi-national biotech companies as well as many Silicon Valley startups. He designs, validates, and sells statistical application software programs that have been purchased by more than 90 companies, world-wide. He has been the in-house statistical consultant and trainer since 2006 for DEKRA (one of the EU/MDD "Notified Bodies"). He has taught on-site statistical workshops for many private clients as well as for Silicon Valley ASQ Biomedical, UC Santa Cruz Extension, Silicon Valley Polytechnic Institute, and Global Compliance Panel; and he has given numerous statistical webinars through commercial on-line-training companies. He has taught this Ohlone workshop annually since 2005.

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