



## Summer Institute for High School Educators

July 8-10, 2008

8a.m. – 3p.m.

Bellingham Technical College

18 OSPI Clock Hours

The following workshops are available this summer. Choose one:

### **Biodiesel: Fat to Fuel**

**\$250**

**Instructor: Tom Carleson**

Each participant will build their own 5 gallon biodiesel generator and during the process learn the history, chemistry, uses, production, and business of biodiesel. The workshop includes hand-on applications in the preparation of biodiesel in the chemistry laboratory, use of biodiesel in an engine, operation of a small scale biodiesel plant, and preparation of an Excel file to estimate costs and potential profit from the production and sale of biodiesel. Teachers will be given information needed to help them incorporate the topic of alternative energy/biodiesel into chemistry, mathematics, history, technology or business classes.

**Instructor Credentials:** Tom Carleson has been a process technology instructor with BTC for two years. He has 19 years of chemical engineering teaching experience at the University of Idaho. He also has a PhD and MS degree in chemical engineering and a BS degree in chemistry.

### **Mapping Student Success with GIS:**

**\$250**

**Instructors: Peter Hodges & Brian Lawrence**

Work with college Surveying & Mapping instructors to learn how GIS (Geographic Information Systems) technology can be implemented in a variety of program areas (Geography, Math, Tech Ed, Ag Science, etc.) to make courses more exciting and relevant to students. Through discussion and hands-on application/practice, participants will gain an understanding of the principles of GIS and methods for implementing GIS activities into your curriculum. GIS integrates strong graphic skills with data management skills and software knowledge to allow visual displays of data sets on maps. Teachers will learn about college and career opportunities related to a GIS program of study.

**Instructor Credentials:** Peter Hodges, PLS has been head of the *Surveying & Mapping Program* at BTC for ten years. He is a licensed surveyor in Washington and New Hampshire and has been making maps for longer than he cares to admit. His BA is from the University of New Hampshire. Brian Lawrence has worked in the field of GIS for over 10 years. Formerly a certified ESRI Instructor, he has also organized and taught numerous departmental training sessions. In his most recent work with GIS, Lawrence served as a Project Manager for GIS Application Development at the University of Georgia in the Information Technology and Outreach Services Division. Lawrence has also worked with GIS at the Bureau of Land Management and the California Department of Transportation.

### **QuickBooks Instructional Strategies**

**\$250**

**Instructor: Yon Wyandt**

Learn all the features of QuickBooks and how accountants use this robust accounting software. You will set up a company with a chart of accounts; enter opening balances; work with lists; set up inventory; create invoices; make cash sales; invoice for service; process payments; work with bank accounts; enter and pay bills and use online banking. You will also work with the general ledger, accounts receivable, accounts payable, and payroll.

**Instructor Credentials:** Yon Wyandt came to the college after retiring as a teacher in the local school system. He has been a professional accountant since 1981. He manages his own accounting company. He has been teaching Accounting classes and Accounting software classes for BTC since 1986. He loves to share and loves to work with educators.

### Electronics & Robotics

\$250

Instructor: Sam Cheung

Electronics are the foundation of most technology-based industries. The field of electronics provides a rich and fascinating world of skills related to math and science. The workshop is designed to provide some basic building blocks to understand passive and active components such as resistor, capacitor, transistor and operational amplifier. The workshop will focus on hands-on applications such as measuring components using a multi-meter, assembling a circuit by reading a schematic and soldering the components. Build simple circuits that perform real-time differentiation and integration, so your students can directly experience calculus in action! Some troubleshooting techniques will be taught when things go wrong with the circuitry. Teachers will be given the information needed to help incorporate electronic principles into physics, mathematics and technology classes.

**Instructor Credentials:** Sam Cheung has been an electronics technology instructor with BTC for 3 years. He worked for IBM more than 25 years as a development engineer and his work experiences are in the areas of thin-film, laser and optical measurements, PC development and server system performance. He received numerous awards as well as a US patent. Sam holds BS and MS degree in electrical engineering.

### Computer Forensics: Crime Scene Investigation

\$250

Instructor: Lee Falta

Computer forensics is rapidly becoming a hot topic in the world of information security. Awareness of security, privacy and investigative issues is on the rise, but so are the computer crime acts. This course gives the student an overview of computer forensics from information security issues to "crime scene investigation," seizure of data, determining the "fingerprints" of the crime, and tracking down the criminals. Frequent examples and laboratory exercises are used to demonstrate how to extract evidence from a violated computer system. Prerequisites: Familiarity with windows XP, windows 2003 server, and basic networking concepts.

**Instructor Credentials:** Lee Falta has been an instructor at Bellingham Technical College for the past 10 years, and has worked over 10 years as a network administrator for various organizations including Northwest Indian College and the US Army Strategic Defense Command. Lee holds a Master's degree in Computer Science, and holds CompTIA Network+ and Security+ certifications, Novell CNA certification, and Microsoft MCSE, MCSA, and MCP certifications.

### The Art of Cuisine

\$250

Instructor: Michael Baldwin

This workshop will focus on developing professional foodservice skills and teaching strategies for the classroom and lab environment. Discussion topics include hands-on skill development in these areas: Fruit Carving; Composed Salads with basic vinaigrettes and composed entrée salads. Teachers will fabricate Chicken Supremes, Drummie pops, Boneless Thighs and Legs. Chicken will also be used for a Southeast Asian cookery class. We will study ingredients for and prepare Satays, Dipping Sauces, Green Curry, Ginger Beef and Coconut, Mango and Glutinous Rice just to name a few. Our session will close with a peer roundtable discussion/brainstorming session on teaching strategies employed in secondary and post-secondary culinary programs. This workshop is for high school teachers of Culinary-related programs.

**Instructor Credentials:** Mike Baldwin is an American Culinary Federation Certified Culinary Educator, and National Restaurant Association Certified Serve Safe Instructor. Mike has worked as a multiple unit chef for several concept restaurants including; Italian, Northwest Seafood, Steak house, Breakfast, Lunch & Dinner house, contemporary high end dining. He has also worked as the Opening Team Head Chef of approximately 20 restaurants throughout the Unites States.

### Make Mine Chocolate!

\$250

Instructor: Hilde Hettegger-Korsmo

Participants will learn about how chocolate is used in the pastry world – types of chocolate and techniques for preparing chocolate for use in pastry products. Participants will practice tempering chocolate couverture, using tempered chocolate for a variety of chocolate decorations, producing different types of filled chocolate truffles and creating a chocolate rose utilizing chocolate modeling techniques. The class will begin daily with discussion of methodologies that will be used that day. Recipes will be handed out, and then it's off to the kitchen to produce the items. At the end of each day a roundtable discussion will be held to taste and talk about what participants have made and how the skills taught can be transferred to the high school culinary lab. This workshop is for high school teachers of Culinary-related programs.

**Instructor Credentials:** Hilde Hettegger-Korsmo holds a Culinary Arts and Hospitality Management degrees from a College of Culinary Arts in Salzburg, Austria, where she graduated at the head of her class, and obtained advanced certification as an apprenticeship instructor. Over the past 15 years Hilde has held a variety of positions in Austria, Italy and the US, ranging from restaurant and bar manager, catering director and banquet manager. She is currently the sole proprietor of a catering business, specializing in European desserts.

### **Math: Industry to the Classroom**

**\$250**

**Instructor: Liz Cunningham**

During research for a grant, the instructor has collected job related math problems from local businesses, industry and colleges which she will share in this interactive workshop via her website. Examples came from refineries, engineers, automotive technicians, medical professions, construction, electronics, welding and fisheries. The math concepts covered will range from basic arithmetic to pre-calculus. The website also includes links to other math websites and mini math modules on specialty topics. Content will be aligned to the Mathematics College Readiness Standards to help participants prepare high school students for the college classroom or a job.

**Instructor Credentials:** Liz Cunningham has taught math for over 30 years. She started teaching at the junior high and elementary school level but the majority of her teaching has been at Community and Technical Colleges. She has taught all levels of math from remedial to precalculus. Her latest experience teaching Education classes has made her a strong advocate for student centered, interactive teaching strategies.

### **Welding Bootcamp**

**\$250**

**Instructor: Don Anderson**

Workshop will focus on helping high school metal shop instructors bring their welding skills up to current industry standards in the area of Gas Tungsten Arc, with refreshers in Shield Metal Arc and Gas Metal Arc Welding techniques. The workshop will take place in BTC's new state-of-the-art welding facility. Participants will be introduced to BTC's welding curriculum and desired student achievement standards for employability in today's welding marketplace. High school teachers will receive guided practice in learning and refining welding skills from BTC's program instructor, who is an industry certified welder and certified AWS and WABO welding inspector. Note: for teachers who have participated in previous Welding Bootcamps, individualized instruction will be provided as needed or requested. Teachers do need to have, at a minimum, basic welding skills.

**Instructor Credentials:** Don has been a Welding Technology Instructor at BTC for 8 years, and has worked in industry for 26 years as a Journeyman Certified Pipe Welder and Fitter, Supervisor, and industrial piping company Owner. He is an award winning Metal Sculptor and has exhibited in the Northwest and Nationally. Don, a CWI/CWE, holds many Welding Certifications including ASME/AWS Carbon and Alloy Pipe and Plate, Navy, API 1104 High Pressure Pipeline, and WABO.

### **Auto-body Experience**

**\$250**

**Instructor: Bruce Evenstad**

This workshop will focus on helping high school instructors practice basic auto collision repair skills as used in the industry. Using damaged fenders, teachers will practice straightening and refinishing techniques, such as metal straightening and Hammer & Dolly work, applying body filler, sanding filler, priming and refinishing. Participants will be introduced to the curriculum used in the Auto Collision Repair program at BTC (AAS Degree) and learn about employment trends in the Auto Collision Repair and Refinishing Industry.

**Instructor Credentials:** Bruce has been the Auto Collision Repair Technology Instructor at BTC for 30 years. He is I-Car Certified Instructor, PPG Master Refinishing Technician, holds an I-Car Platinum Individual Certificate of Qualification, I-Car CRIN Member.

### **Shellfish Aquaculture and Biology**

**\$250**

**Instructor: Earl Steele**

This workshop will allow biology, science, natural resources, natural science, and aquaculture instructors to get wet and personal with shellfish while learning about the techniques and species raised in aquaculture. Students will learn about life cycles, culture methods, harvest methods, and paralytic shellfish poisoning. Discussion of events in shellfish aquaculture, career opportunities and current events will be included as well as a field trip to a local oyster and clam farm. The following books will be used and are included with registration: Shellfish Aquaculture and Collecting Safe Shellfish

**Instructor Credentials:** Earl Steele holds a Bachelor of Science Degree from the University of Washington, over 30 years of experience in oyster culture, clam culture, fish culture, enhancement projects, commercial fishing, and fisheries consulting work. Earl continues to work in his family's oyster and clam farm in Hood Canal.