

Curriculum Vitae of William K. Bencini

I. Professional Affiliation and Contact Information

A. Date and Place of Birth

May 24th 1950
Murphysboro, IL 62966

B. Home Address

323 Douglas Avenue
Dixon, IL 61021
618-527-4368

II. Present Occupation, Department or Unit:

Department of Automotive Technology
Byron Unit School District #226
696 North Colfax
Byron, IL
815-234-5491

III. Education

A. Formal:

Master of Arts, Vocational Education, Northern Arizona University,
Flagstaff, AZ, 1986

Associate of Applied Science, John A. Logan Community College,
Carterville, IL, 1979

Bachelor of Arts, Physical Education, Illinois Type 09 Teaching
Certificate (grades 6-12), Monmouth College, Monmouth IL, 1972

B. Continuing:

10- Chrysler/TTi, Auburn Hills, MI; 2009 **Dodge Durango Hybrid**

06-25-2007 Webasto, Inc. Fenton, MI. 40 hours. **Airtop Series Heater Training**

05-20-2007 Webasto, Inc. Fenton, MI. 40 Hours. **Blue Cool Parking Cooler**

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03-13-2007 Illinois College Automotive Instructor Association
Spring Conference. South Elgin High School, Elgin
IL. **Use of Ethanol Blends in non-Flex Fuel Vehicles**
Steve Englehart. SIU, Carbondale, IL.

03-12-2007 Illinois College Automotive Instructor Association
Spring Conference. **Hydrogen Fuel Cells.**
FuelCellStore.com. Kay Larson

12-12-2006 American Honda Training Center. Troy, OH.
24 hours.

08-18-2006 North American Council of Automotive Teachers
International Conference. Edmonton AB Canada.
Mazda Direct Injection Spark Ignition System (DISI).
George Benda. Mazda of Canada

08-18-2006 North American Council of Automotive Teachers
Conference, Edmonton, AB, Canada. **Synthetic
Lubrication Impact on Drive Trains & Emissions.**
Amsoil Industrial Synthetics

07-22-2006 American Honda Training Center. Troy, OH.
40 hours

07-18-2005 American Honda Training Center. Troy, OH.
40 Hours

07-25- 2004 American Honda Training Center. Troy, OH.
40 Hours.

07-11-2003 American Honda Training Center. Troy, OH.
MAS03 Hybrid Motor Removal/Installation

07-10-2003 American Honda Training Center. Troy, OH.
FEC54 Catalytic Converter Operation

07-10-2003 American Honda Training Center. Troy, OH.
ENC30 VTEC System

07-10-2003 American Honda Training Center. Troy, OH.
EMT 21 Evaporative Emission Control Systems

07-10-2003 American Honda Training Center. Troy, OH.
EMT24 EGR Systems

07-09-2003 American Honda Training Center. Troy, OH.
PCV Systems

07-08-2003 American Honda Training Center. Troy, OH
MAC01 IMA Construction & Function

07-08-2003 American Honda Training Center. Troy, OH.
FE58 OBD II Data Link Connector

07-08-2003 American Honda Training Center. Troy, OH.
FEC57 OBD II Terminology

07-08-2003 American Honda Training Center. Troy, OH.
FE56 OBD II Regulations

07-08-2003 American Honda Training Center. Troy, OH.
FE03 Emission Concerns

04-23-2004 John A. Logan College, Carterville, IL.
Bio-Diesel Update. Lee Rawson

03-24-2003 American Technical Education Association National
Conference. New Orleans, LA. **Multiple Methods for
Multiple Intelligences.** Letha Barnes. Thomson
Delmar Learning Center

07-21-1995 SIU Automotive Technology Summer Workshop
Dual Trace Oscilloscopes – Tektronix Inc.

07-20-1995 SIU Automotive Technology Summer Workshop.
**Electronic Fuel & Emissions Systems – ASE
Certification**

07-17-1995 SIU Auto Technology Summer Workshop.
Engine Rebuilding for the 90's - MAC Weld

08-20-1993 GM course 16018.10, **Tech I Familiarization**

08-19-1993 GM course 16018.02, **GM t-100 (CAMS II)**

08-17-1993 GM course 16018.01, **GM t-100 (CAMS)**

07-01-1993 SIU Auto Technology Summer Workshop.
EEC IV Electronic Engine Controls Update – Ford
Motor Company

01-11-1993 GM course 17001.11, **4I60E Automatic Transmission**

09-11-1989 GM course 16021.01, **Batteries, Charging &
Cranking Systems**

C. Certificates:

Automotive Service Excellence Engine Repair 1978-present, Expires 2012

Automotive Service Excellence L1 Advance Engine Performance.
1995 - 2005

Automotive Service Excellence, Master Engine Machinist, 1995-2005:

- Assembly Specialist
- Cylinder Head Specialist
- Cylinder Block Specialist

Automotive Service Excellence Master Automotive Technician 1978-2005:

- Brakes
- Automatic Transmission/Transaxle
- Electrical/Electronics Systems
- Engine Performance
- Engine Repair
- Heating & Air Conditioning
- Manual Drive Trains & Axles
- Suspension & Steering

D. Licenses:

Illinois Type 09 (secondary grades 6-12) Teaching Certificate
Physical Education Endorsement
Technology Education Endorsement

Arizona Community College Certificate

IV. Professional Experience

Byron Unit School District #226
Byron, IL 61010
Automotive Technology

Southern Illinois University, Carbondale, IL.
Assistant Professor, Department of Automotive Technology.
2002-2008

Technical Trainers Incorporated (TTi). Fenton, MI.
Field Trainer for Webasto Blue Cool Project. Summer 2007

Bureau Valley Special Schools, Wyanet, IL.
Math and Science Teacher. 2001-2002

Dohrn Transfer, Rock Falls, IL. Semi-truck and trailer technician.
2001

Ken Nelson Chrysler/Jeep, Dixon, IL.
Service Adviser. 2001

Whiteside Area Vocational Center, Sterling, IL.
Automotive Technology Instructor. 1999-2000

Lewis University @ Dixon Correctional Center, Dixon, IL.
Automotive Technology Instructor. 1992-1999

Sauk Valley Community College @ Dixon Correctional Center, Dixon,
IL. Automotive Technology Instructor. 1985-1992

Peak Auto & Truck Repair, Flagstaff, AZ.
Automotive Technician. 1984-1985

Prime Auto Supply, Dixon, IL. Automotive Machinist. 1991-1992

Northern Arizona University, Flagstaff, AZ. Graduate (Teaching)
Assistant, College of Applied Science. 1984-1985

Mississippi Valley School District #166, Gorham, IL.
Automotive, Welding & Basic Electricity Teacher. 1980-1984

Consolidated Coal Burning Star #2 Mine, Pinckneyville, IL.
2nd Shift Mechanic. 1979-1980

Unit District #186, Murphysboro, IL.
Indoor Suspension Supervisor, Murphysboro Township High School.
1979

Unit District #186, Murphysboro IL.
School Bus Fleet Technician. 1976-1979

V. Research and Creative Activity

A. Interests and Specialties:

Variable Valve Timing and Lift Systems (mechanical and electrical)
Adaptive Atkinson Cycle Engines (hybrid & conventional vehicles)
Alternative Fuels, Hybrid Drive Systems and
Environmental/Meteorological and Climatic Concerns

B. Current Projects:

Bencini, William K. ***Honda Vtec 1992-2004 (Variable Valve Timing & Lift Electronic Control): A Functional Approach.*** Original paper (2004)
is updated annually as changes in technology and application warrant.

*Bencini, William K. ***The 2006 Honda Civic R18A1 Adaptive Atkinson Cycle Engine, Part I - Vtec in Reverse.***

* Bencini, William K. ***The 2006 Honda Civic R18A1 Adaptive Atkinson Cycle Engine, Part II - Activation Analysis and Data*** study evaluates Vtec activation data in reference to engine load and Rpm. Study involves gathering data from the following engine sensors/actuators; MAP (Manifold Absolute Pressure) sensor, TPS (Throttle Position) sensor, and ET (Electronic Throttle).

*Bencini, William K. ***GM Recall 04V090000GM Intake Manifold Fire Hazard.***

*Bencini, William K. and Janello, Tim. ***Catalytic Converter Disintegration Causes Engine Failure in 2005 Acura TL.***

Bencini, William K. and Englehart, Steve. ***Use of Alcohol Blend Fuel in Non-Flex Fuel Vehicles.***

Bencini, William K. ***DTC 0125 Engine Coolant Temperature (ECT) Insufficient for Closed Loop.*** This code indicates the engine is running too cold with a significant decrease in fuel mileage. This paper evaluates temperature gage behavior and sub-threshold operating temperatures that do not activate this code yet cause a significant decrease in fuel consumption.

Bencini, William K. and Timmons, Austin. ***Industry Wide Review of OEM Atkinson Cycle Technology.***

Bencini, William K. and Timmons, Austin. ***Static Compression Test Study of Improperly Installed (mis-timed) Timing Belts.***

Bencini, William K. ***Evaluation/Comparison of Engine Coolant Hydrometers.***

*Indicates articles scheduled for publication in Precision Engine Magazine beginning January 2008.

C. Grants Received:

N/A

D. Papers and Presentations at Professional Meetings:

International

Bencini, William & Gilbert, David Phd (July 2007). ***Teaching Chrysler/GM Dual Mode EVT Powerflow with Nomographs.*** Presentation at North American Council of Automotive Teachers (NACAT) International Conference, Pennsylvania College of Technology, Williamsport, PA.

Bencini, William K. (July 2007). ***Webasto Blue Cool - Zero Emission Parking Cooler***. Presentation at North American Council of Automotive Teachers (NACAT) International Conference, Long Beach, CA.

Bencini, William k., July 2007. ***The 2006 Honda Civic R18A1 Adaptive Atkinson Cycle Engine – Part I: Vtec in Reverse***. Paper presented at North American Council of Automotive Teachers (NACAT) Conference, Long Beach, CA.

Bencini, William K. (July 2006). ***Honda Vtec 1992-2004: A Functional Approach with 2005 Accord Hybrid iVtec IMA, 2005 Odyssey iVtec VCM Update and Introduction to 2006 Civic R18A1 Adaptive Atkinson Cycle Engine***. Paper presented at North American Council of Automotive Teachers (NACAT) International Conference, Edmonton, AB Canada

Bencini, William K. (March 2005). ***Honda Vtec 1992-2004: A Functional Approach***. Paper presented at American Technical Education Association (ATEA) National Conference, New Orleans, LA.

Regional

Bencini, William & Boyes, Rod (CEO Melior Corporation), ***Today's Class; E-based Supplemental Automotive Curriculum***

Bencini, William & Gilbert, David Phd (October 2008). ***Teaching Chrysler/GM Dual Mode EVT Powerflow with Nomographs***. Presentation at Illinois College Automotive Instructors Association (ICAIA) Regional Conference @ Ranken Technical College, St Louis, MO

Bencini, William K. (March 2007). ***The 2006 Honda Civic R18A1 Adaptive Atkinson Cycle Engine Part I - Vtec in Reverse***. Paper presented at Illinois College Automotive Instructor Association (ICAIA) Spring Conference. South Elgin High School. Elgin, IL.

Reed, Bob and Bencini, William K. (October 2006). ***Cryogenic Treatment of Automotive Components***. Facilitator/ Co-presenter with Bob Reed of 300 Below. Presentation at Illinois College Automotive Teachers Association (ICAIA) Fall Conference. Chicago Area Auto Dealers Association. Chicago, IL

Bencini, William K. (March 2006). ***Honda Vtec 1992-2004; A Functional Approach with 2005 Accord iVtec IMA and 2005 Odyssey iVtec VCM Update***. Paper presented at Illinois College Automotive Association (ICAIA) Spring Conference. Triton College. River Grove, IL.

Bencini, William K. (October 2005). ***Honda Vtec 1992-2004: A Functional Approach.*** Paper presented at Illinois College Automotive Instructor Association (ICAIA) Fall Conference. Kishwaukee Community College. Malta, IL.

Bencini, William K. (March 2005). ***Honda Vtec 1992-2004: A Functional Approach.*** Paper presented at American Technical Education Association (ATEA) Regional Conference, Stark State College. North Canton, OH.

E. Other:

Bencini, William K. (August 2006). *Hybrid Training for 1st Responders.* Two day training seminar for emergency 1st responder personnel. Moraine Valley Community College. Palos Hills, IL.

VI. Publications and Creative Works

A. Articles in Professional Journals:

Bencini, William K. (July 2009) ***GM Recall Targets Fuel Pressure Regulator***, Undercar Digest, 34-35

Bencini, William K. (June 2005). ***Understanding Honda Vtec.*** *Precision Engine*, 22-33.

Bencini, William K. ***The 2006 Honda Civic R18A1 Adaptive Atkinson Cycle Engine Part I - Vtec in Reverse.***

Bencini, William K. ***The 2006 Honda Civic R18A1 Adaptive Atkinson Cycle Engine Part II. Vtec Activation Analysis and Data.***

**Bencini, William. Gilbert, David Phd. Boyle, Sean. The Relationship between Static Compression Test Results and Improper Timing Belt Installation.*

*Indicates article recently (October 2008) submitted for publication

VII. Teaching Experience

A. Teaching Interests and Specialties:

Teaching experience prior to SIU ranged across all eight ASE automotive technical areas. Emphasis at SIU: engine operational theory and engine service procedures.

Teaching interests include engine development history, variable valve timing technology, alternate energy/fuel sources, and environmental and climatic concerns.

Secondary

Byron Unit District #226
Byron, IL, August 2008

Bureau Valley Special Schools, Wyanet, IL.
Math and Science Teacher. 2001-2002

Whiteside Area Vocational Center, Sterling, IL.
Automotive Technology Instructor. 1999-2000

Mississippi Valley School District #166, Gorham, IL.
Automotive, Welding & Basic Electricity Teacher. 1980-1984

Murphysboro Township High School, Murphysboro, IL.
Indoor Suspension Supervisor & Tutor. 1979

Community College

Sauk Valley Community College, 173 IL Rt. 2 Dixon, IL.
Automotive Technology Instructor. 1987-1990

Community College

Illinois Department of Corrections - Dixon Correctional Center

Sauk Valley Community College @ Dixon Correctional Center, Dixon, IL. Automotive Technology Instructor. 1985-1992

Lewis University @ Dixon Correctional Center, Dixon, IL.
Automotive Technology Instructor. 1992-1999

University

Southern Illinois University, Carbondale, IL.
Assistant Professor. Department of Automotive Technology.
2002 - present

Northern Arizona University, Flagstaff, AZ. Graduate Assistant.
Advance Engine Service & Repair. 1985-1986

Corporate

Technical Trainers Incorporated (TTi). Fenton, MI.
Field Trainer for Webasto Blue Cool Project. Summer 2007

B. Teaching and Training Grants

Summer 2004 Vtec project

C. Teaching Awards and Honors:

D. Other:

AUT 150 Engine Mechanical Systems

AUT 299 Independent Study, AUT 475 Technical Investigations

Illinois Department of Corrections Curriculum Standardization Project.
1991 - 1992

VIII. University Experience

A. Department Committees:

Member, Scholarship Committee, 2002 - Present

Member, Operating Paper Committee, 2002 - 2003

Member, Curriculum Committee, 2003 - 2006

Participant, Annual Automotive Technology Advisory Board Meeting,
2002 - present

B. College and University Committee and Councils:

Chair Elect, Honor's Day Committee, CASA, 2007 - 2008

Member, Honor's Day Committee, CASA, 2005 - 2007

Member, Curriculum Committee, CASA, 2007 - Present

Member, Grievance and Academic Dishonesty Committee, CASA,
2004 – 2006

C. Other:

University 101 Training. May 2005

Faculty Advisor, SIU Ski & Snow Board Club RSO

Faculty Advisor, SIU Lacrosse Club RSO

Early Move-In Day, Automotive Technology and Aviation
Departments. 2004 - 2007

L-3 Engine Lab development

ATO Club 1954 Chevrolet Truck Project

IX. Professional Service

A. Membership in Professional Organizations:

Illinois College Automotive Instructor Association (ICAIA), 1988 - Present

North American Council of Automotive Teachers (NACAT), 2006 - Present

NATEF evaluation Team Leader, Truman College, 1991

B. Offices Held and Honors Awarded in Professional Associations:

C. Consultantships:

D. Papers and Presentations at Professional Meetings:

International

Bencini, William K. (July 2007). ***Webasto Blue Cool – Zero Emissions Parking Cooler.*** Presentation at North American Council of Automotive Teachers (NACAT) Conference. Long Beach, CA.

Bencini, William K. (July 2007). ***The 2006 Honda Civic R18A1 Adaptive Atkinson Cycle Engine – Part I: Vtec in Reverse.*** Paper presented at North American Council of Automotive Teachers (NACAT) Conference. Long Beach, CA.

Bencini, William K. (July 2006). ***Honda Vtec 1992-2004: A Functional Approach with 2005 Accord Hybrid iVtec IMA, 2005 Odyssey iVtec VCM Update and Introduction to 2006 Civic R18A1 Adaptive Atkinson Cycle Engine.*** Paper presented at North American Council of Automotive Teachers (NACAT) Edmonton, AB Canada.

Bencini, William K. (March 2005). ***Honda Vtec 1992-2004: A Functional Approach.*** Paper presented at American Technical

Education Association (ATEA) National Conference. New Orleans, LA.

Regional

Bencini, William K. (March 2007). ***The 2006 Honda Civic R18A1 Adaptive Atkinson Cyce Engine Part I - Vtec in Reverse***. Paper presented at Illinois College Automotive Instructor Association (ICAIA) Spring Conference at south Elgin High Scholl. Elgin, IL.

Bencini, William K. (October 2006). ***Cryogenic Treatment of Automotive Components***. Co-presenter with Bob Reed of *300 Below*, Decatur IL.. Presentation at Illinois College Automotive Teachers Association (ICAIA) Fall Conference. Chicago Area Auto Dealers Association. Chicago, IL

Bencini, William K. (March 2006). ***Honda Vtec 1992-2004; A Functional Approach with 2005 Accord iVtec IMA and 2005 Odyssey iVtec VCM Update***. Paper presented at Illinois College Automotive Association (ICAIA) Spring Conference. Triton College. River Grove, IL.

Bencini, William K. (October 2005). ***Honda Vtec 1992-2004: A Functional Approach***. Paper presented at Illinois College Automotive Instructor Association (ICAIA) Fall Conference. Kishwaukee Community College. Malta, IL.

Bencini, William K. (March 2005). ***Honda Vtec 1992-2004: A Functional Approach***. Paper presented at American Technical Education Association (ATEA) Regional Conference, Stark State College. North Canton, OH.

E. Other:

Bencini, William K. and McGrath, William. (August 2006). ***Hybrid Training for 1st Responders***. Two day training seminar for emergency 1st responder personnel. Moraine Valley Community College. Palos Hills, IL.

X. Community Service

Habitat for Humanity. Lee County, IL (1986-1999) and Jackson County, IL (2005-present)

Dixon Pads Shelter Parish Director, St. Patrick's Catholic Church. Dixon, IL 1986 -1999