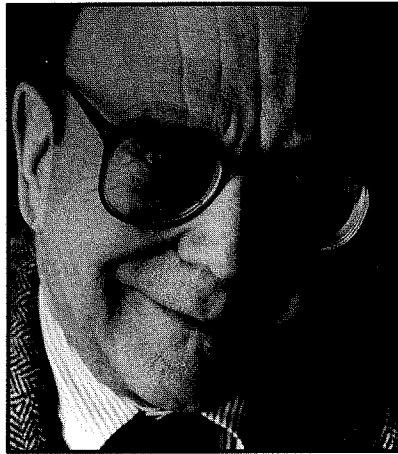


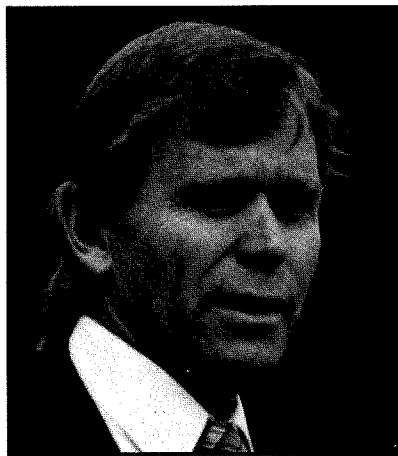
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The 13th Annual  
International Conference  
On Critical Thinking  
And Educational Reform

The Center for Critical Thinking and Moral Critique  
Sonoma State University



**ROBERT HEILBRONER**  
DISTINGUISHED ECONOMIST AND SOCIAL CRITIC



**RICHARD W. PAUL**  
DIRECTOR OF THE CENTER FOR CRITICAL THINKING

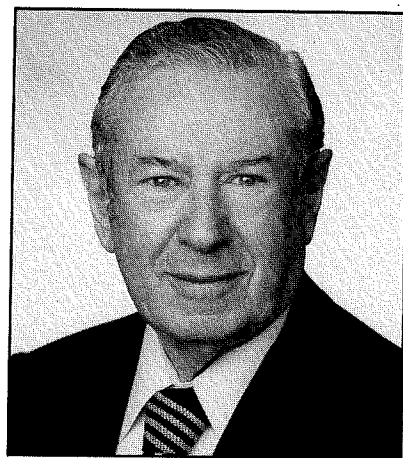
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PROCEEDINGS OF  
**THE  
THIRTEENTH ANNUAL  
INTERNATIONAL CONFERENCE  
ON  
CRITICAL THINKING AND  
EDUCATIONAL REFORM**

**Critical Thinking:  
A Global Economic Imperative**

AUGUST 1-4, 1993

—◆—  
UNDER THE AUSPICES OF THE  
**Center for Critical Thinking and Moral Critique**  
SONOMA STATE UNIVERSITY  
(707) 664-2940

*The proceedings of the 13<sup>th</sup> International Conference on Critical Thinking are dedicated to the memory of the late Edward M. Glaser whose commitment to critical thinking was lifelong and whose contribution was seminal and far-reaching.*



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## ABOUT THE CENTER

### ABOUT THE CENTER FOR CRITICAL THINKING:

The Center conducts advanced research and disseminates information on critical thinking and moral critique. It has been working closely with the Foundation for Critical Thinking, the California State Department of Education, the College Board, the Association for Supervision and Curriculum Development, the National Education Association, the U.S. Department of Education, and numerous school districts to facilitate implementation of high standards of critical thinking instruction from kindergarten through college. Its major works include the International Conference on Critical Thinking and the Staff Development Series.

### ABOUT THE FOUNDATION FOR CRITICAL THINKING:

The Foundation for Critical Thinking is a nonprofit public benefit corporation, legally independent from Sonoma State University. It works cooperatively with the Center for Critical Thinking and Moral Critique, PBS Adult Learning Satellite Service, the College Board, and other research centers, institutes, and public institutions to publish and disseminate a variety of critical thinking resources.

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## ABOUT THE NATIONAL COUNCIL FOR EXCELLENCE IN CRITICAL THINKING:

The goal of the NCECT is to become an independent, nonprofit, professional organization parallel to the National Council of Teachers of Math, English, ... and domain specific associations such as the American Psychological Association, and the American Philosophical Association. At present, the NCECT is legally and financially a part of the Foundation for Critical Thinking and shall remain so until it is able to function independently.

### PHILOSOPHY

Critical thinking holds the potential for helping students learn how to learn, with discipline and depth, in any subject they choose to study. It offers the thinker the opportunity to develop well-grounded self-confidence in his or her ability to come to a well-reasoned idea on any issue or topic. It provides the developmental foundation for good judgment, a quality highly prized by all.

The Center for Critical Thinking and Moral Critique is based on the singular goal of helping critical thinking reach its potential. The objectives of our research, our teaching, our writing, and our critique is to reach out to students, to teachers, to administrators, to parents, and to business people who are all striving to develop well-reasoned ideas, and to develop people of good judgment.

### PRINCIPLES

- Every person is capable of improving his or her thinking.
- We learn what to think only as we learn how to think.
- Critical thinking always involves the thinker's continuous self-assessment of the thinking as the thinking develops.
- We will gain significant knowledge only if we value gaining it.
- To be educated means to predictably come to well-reasoned ideas, beliefs, and decisions.
- Speedy and shallow coverage, which is the survey approach to education, often produces mislearning which retards deeper understanding and tends to breed intellectual arrogance.

- We all learn best by working with others, dialogically, and generating mutually supportive debate.
- Critical thinking requires that we recognize the limitations of our own point of view and seek truth above advocacy of our positions.
- We need intellectual criteria and standards by which to guide and evaluate our thinking as we construct meaning from our world.
- There are numerous pseudo critical thinking approaches being generated by textbook publishers and others. It is important to have criteria for the assessment of such approaches.

### PLEASE CALL ...

The staff at the Center and the Foundation for Critical Thinking, committed to the furthering of critical thinking, welcomes inquiries via phone, fax, or E-mail. We will do our best to answer your questions or direct you to other sources, when appropriate. Inquiries regarding the conference, staff development services, and academic credit should be directed to the Center. Questions regarding Regional Workshops and critical thinking books and tapes should be directed to the Foundation. Below is a list of organizational and project managers. These individuals and their staff welcome your communications.

Trish Taylor	Director of Operations
Renee Denise	Coordinator, Center for Critical Thinking
John Pruess	Coordinator, Foundation for Critical Thinking
Kelly Grogan	Assistant Inservice Coordinator
J. J. Jones	Conference Presenter Representative
Annalise O'Brien	Conference Registration Coordinator
David Grady	Assistant Conference Coordinator
Charles Evans	Foundation Shipping Manager
Emiko Lewis	Resource Order Coordinator
Mike Lanham	Accountant
Rena Ferric	Workshop Registration Coordinator

**Center for Critical Thinking**  
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 fax: (707) 664-4101

**Foundation for Critical Thinking**  
 4655 Sonoma Mountain Road  
 Santa Rosa, CA 95404  
 phone: (707) 546-4926  
 fax: (707) 546-4718

## What is Critical Thinking?

**A Unique Kind of Purposeful Thinking**

IN ANY SUBJECT AREA OR TOPIC, WHETHER ACADEMIC OR PRACTICAL, REQUIRING INTELLECTUAL FITNESS TRAINING FOR THE MIND AKIN TO PHYSICAL FITNESS TRAINING FOR THE BODY

**In Which the Thinker Systematically and Habitually**

ACTIVELY DEVELOPS TRAITS SUCH AS INTELLECTUAL INTEGRITY, INTELLECTUAL HUMILITY, FAIRMINDEDNESS, INTELLECTUAL EMPATHY, AND INTELLECTUAL COURAGE

**Imposes Criteria and Intellectual Standards Upon the Thinking**

IDENTIFIES THE CRITERIA OF SOLID REASONING, SUCH AS PRECISION, RELEVANCE, DEPTH, ACCURACY, SUFFICIENCY, AND ESTABLISHES A CLEAR STANDARD BY WHICH THE EFFECTIVENESS OF THE THINKING WILL BE FINALLY ASSESSED

**Taking Charge of the Construction of Thinking**

AWARENESS OF THE ELEMENTS OF THOUGHT SUCH AS ASSUMPTIONS AND POINT OF VIEW, THAT ARE PRESENT IN ALL WELL-REASONED THINKING; A CONSCIOUS, ACTIVE AND DISCIPLINED EFFORT TO ADDRESS EACH ELEMENT IS DISPLAYED

**Guiding the Construction of the Thinking According to the Standards**

CONTINUALLY ASSESSING THE COUSE OF CONSTRUCTION DURING THE PROCESS, ADJUSTING, ADAPTING, IMPROVING, USING THE CANDLES OF CRITERIA AND STANDARDS TO LIGHT THE WAY

**Assessing the Effectiveness of the Thinking According to the Purpose, the Criteria, and the Standards.**

DELIBERATELY ASSESSING THE THINKING TO DETERMINE ITS STRENGTHS AND LIMITATIONS, ACCORDING TO THE DEFINING PURPOSE, CRITERIA AND STANDARDS, STUDYING THE IMPLICATIONS FOR FURTHER THINKING AND IMPROVEMENT

## BUSINESS AND ECONOMIC EXPERTS CALL FOR CRITICAL THINKING

**John Sculley, CEO and Chair of Apple Computer:**

*"... as a nation, we have gone from being resource-rich in the old economy to resource-poor in the new economy almost overnight! Our public education has not successfully made the shift from teaching the memorization of facts to achieving the learning of critical thinking skills. We are still trapped in a K-12 public education system which is preparing our youth for jobs that no longer exist."* (Sculley, John. Remarks to then President-Elect Clinton, December, 1992)

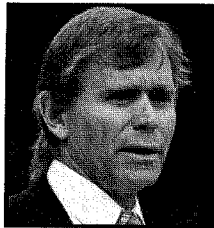
**Laura Tyson, Chair, President's Council of Economic Advisors:**

*"High productivity work-place organizations depend on workers who can do more than read, write, and do simple arithmetic, and who bring more to their jobs than reliability and a good attitude. In such organizations, workers are asked to use judgment and make decisions rather than to merely follow directions."* (Tyson, Laura D'Andrea. "Failing Our Youth: America's K-12 Education," *New Perspectives Quarterly*, Nathan Gordels, editor. Winter, 1993, p. 53)

**Robert Reich, Secretary of Labor**

*"... mastery of old domains of knowledge isn't nearly enough to guarantee a good income..... What is more valuable is the capacità to effectively and creatively use the knowledge."* (Reich, Robert. *The Work of Nations*, Vintage Books, NY, NY. 1992, p. 182)

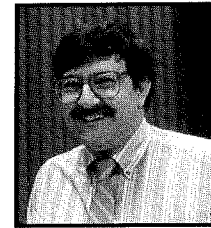
## RESEARCH AND INSERVICE TEAM



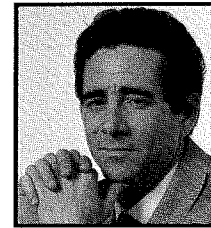
**RICHARD W. PAUL**, Director of the Center for Critical Thinking, is an internationally recognized authority on critical thinking, with five books and over 50 articles published on the subject. Professor Paul has given lectures on critical thinking at many universities in both the United States and abroad, including Harvard, the University of Chicago, the University of Illinois, and the universities of Puerto Rico, Costa Rica, and Amsterdam. He has been regularly teaching beginning and advanced courses in critical thinking at the university for over 14 years. His workshops have been attended by thousands of educators, both K-12 and university.



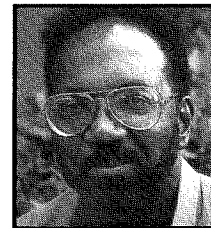
**JANE WILLEN**, Assistant Director of the Center for Critical Thinking is a specialist in working with elementary and middle school teachers and students, with at-risk students, in character education, and with parents. She has taught at the elementary and middle school level, counseled at middle school, and is working extensively with business groups in helping teachers appreciate what abilities and traits business is looking for in future employees. She also developed the character education/critical thinking program, *Let's Talk Sportsmanship* for elementary and middle school students, parents, and teachers.



**GERALD NOSICH** is a noted authority on critical thinking and the author of *Reasons and Arguments*. He is presently working on a book on critical thinking across the curriculum. His ability to give subject-specific examples of critical thinking, as well as his command of diverse teaching strategies, have made him a popular staff development leader. A regular presenter at conferences on critical thinking, he has also given many workshops across the country.



**DAN WEIL** is a specialist in critical thinking in elementary school as well as in multi-cultural education, K-12. He has taught kindergarten, first, and second grades for four years; has lived in Central America for three years; and is fluent in Spanish. He has conducted many inservices in the United States and in Mexico. Dr. Weil is acutely aware of the concerns of classroom teachers and is skilled at giving examples involving the immediate application of critical thinking to the classroom.



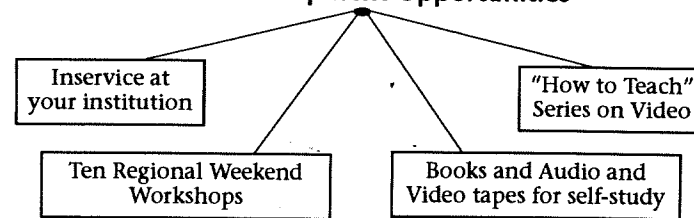
**YEHUDI O. WEBSTER** is an expert in critical thinking and social problems. He provides workshops on infusing critical thinking into instruction, but is especially concerned with a critical thinking approach to multi-culturalism and the "classification" of people into ethnic and racial groups. He emphasizes the transferability of critical thinking abilities and traits across disciplines and the significance of reasoning in everyday communication and action. Dr. Webster teaches in the Sociology Department at CSU, Los Angeles, and has written *The Racialization of America*.

## STAFF DEVELOPMENT

**T**HE CENTER FOR Critical Thinking (in cooperation with its sister organization, the Foundation for Critical Thinking) offers four avenues for continuing professional development:

- Inservice at your school or district: For one day, two days, or longer we come to your institution to offer a seminar designed to meet your individual needs. We are also available to meet with administrators and parents at the K-12 level to discuss the importance of critical thinking for a child's development and employment opportunities.
- Ten Regional Workshops: Two exciting, interactive days of critical thinking theory and practice with sections designed for K-8, High School, University, and Advanced. One unit of academic credit is available.
- "How to Teach" Series on 9 videocassettes: The structure of this course involves teaming up with a colleague. Assignments are included. Academic credit is available through Sonoma State University.
- Resource Materials: We offer several books on critical thinking as well as audio and video presentations by a variety of presenters that can be used for self-study. (See the summary of selections on page ajob.)

### Staff Development Opportunities





## REGIONAL WORKSHOPS

Short of bringing the team onto your campus for an "all-faculty" event, the next best option is an intensive critical thinking workshop offered in your region.

The Staff Development team hits the road again this year for ten Regional Workshops (see registration form for schedule).

These weekend opportunities can perform a pivotal role in revitalizing instruction for you and your colleagues. Two full days of foundational work, both hands-on practice and solid theory are integrated in the seminar, with emphasis on designing assignments that require reasoning, building student self-assessment techniques with your students, and grounding all class work in universal intellectual standards. Accentuated again is an emphasis on the practical, on classroom strategies that any teacher or professor can use to empower students through the use of their own innate, but typically underdeveloped, capacity to reason.

Participants who are ready for an advanced session on critical thinking strategies will have that option available at these workshops. Materials will be sent to these registrants in advance for careful review. The advanced session begins with the assumption that every participant is conversant with the basic vocabulary of critical thinking. Both K-12 and post-secondary educators are welcome to select the advanced session if they so desire.

### ACADEMIC CREDIT

One unit of graduate level credit is available for each of the Regional Workshops. The cost is \$30, payable to Extended Education at Sonoma State University. Applications for this credit are available at the Workshop.

### Regional Workshop Registration Form

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Grade Level or Area of Specialization: \_\_\_\_\_

Address: Work  Home  \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

School District or Institution: \_\_\_\_\_

Number in Group: \_\_\_\_\_

I would like to attend the Regional Workshop in:

- Dallas, October 2-3, 1993, at Plaza of the Americas Hotel
- Atlanta, Nov. 13-14, 1993, at Ritz-Carlton Hotel
- Cancun, Jan. 5-8, 1994, at Hyatt Regency Cancun
- Washington D.C., Jan. 15-16, 1994, at Ritz-Carlton Pentagon City
- New York City, Jan. 22-23, 1994, at Hotel Macklowe
- Vancouver, B.C., Feb. 26-27, 1994, at Four Seasons Hotel
- Milwaukee, March 5-6, 1994, at Hyatt Regency
- Kansas City, March 19-20, 1994, at Ritz Carlton Hotel
- Phoenix, April 9-10, 1994, at Ritz-Carlton Hotel
- Honolulu, May 14-15, 1994, at Hyatt Regency Waikiki

Please Check One: \_\_\_ K-12 \_\_\_ Univ \_\_\_ Advanced

Fee: \$195

For Groups of 4 or more: \$150

Regional Workshop Fee: \$ \_\_\_\_\_

Make checks payable and mail to:

**Foundation for Critical Thinking**

4655 Sonoma Mountain Road, Santa Rosa, CA 95404

phone: (707) 546-4926, fax: (707) 546-4718

## INSERVICE

Critical thinking is essential to all effective academic work and activities. Below is a sampling of the themes of some of our staff development inservice programs. The inservice team is experienced in working with a wide range of audiences, from standard academic disciplines to specific and innovative fields. Inquiries regarding presenters, session-breakdowns, costs, and alternative emphases or themes are available upon request from the Center for Critical Thinking.

### KINDERGARTEN THROUGH HIGH SCHOOL

- How to Infuse Critical Thinking Across the K-12 Curriculum
- Critical Thinking: The Role of the Administration
- Questioning Students, and Teaching Students to Question: K-12
- Ethics Without Indoctrination: Moral Reasoning Across the K-12 Curriculum
- How to Establish Intellectual Standards Across K-12 Curriculum
- Dimensions of Critical Thinking and Instructional Redesign
- Reading and Writing as Modes of Thinking
- Remodeling Lessons in the K-12 Curriculum to Foster Thinking
- Critical Thinking and Primary School Mathematics Instruction
- Critical Thinking About Historical and Contemporary Issues of Social Concern
- How to Infuse Critical Thinking in Whole Language Instruction

Also available for each inservice at the K-12 level is an evening presentation for parents, community, and business persons interested in critical thinking and the implications for educational reform in their school community.

### AT THE COLLEGE LEVEL

- Infusing Critical Thinking into College and University Instruction
- Ethics Without Indoctrination: Moral Reasoning Across the College/University Curriculum
- Using Questioning Strategies to Teach College and University Students to Reason Persuasively, Master Content, and Discipline Their Minds
- College Reading and Writing as Modes of Thinking
- How to Establish Intellectual Standards Across College/University Curriculum
- Critical Thinking: The Role of Administration
- Remodeling Courses to Foster Critical Thinking
- Thinking Within a Discipline and Teaching Thinking Within a Discipline
- Thinking in a Unified Way Across the Disciplines
- How to Generate Appreciation of the Subject Matter and Make Knowledge Memorable to Students Through the Concept of Discovery and Critical Thinking
- Critical Thinking and Nursing Education

## RESOURCES

The Foundation for Critical Thinking, sister organization to the Center for Critical Thinking, will have an extensive exhibit of resources available for participants during the 13<sup>th</sup> International Conference.

On display will be two new volumes of Richard Paul's works: *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World*, and *Critical Thinking: How to Prepare Students to Survive in a Rapidly Changing World*. The first volume is designed for the general public, and the second is tailored to the needs of educators. Each has three new chapters:

- Accelerating Change: Increasing the Complexity and Quality of Our Thinking
- Critical Thinking: Identifying the Targets
- Pseudo Critical Thinking in the Educational Establishment

The books have been redesigned with a more reader-friendly format and new introductions. They provide the serious student of critical thinking with valuable insights into the potential and challenge of comprehensive critical thinking.

The Foundation also has on display two video tape series, *How to Teach for Critical Thinking* (9 tapes), and *The PBS Series*. The following additional tapes were produced especially for this conference.

- Pseudo Critical Thinking
- Critical Thinking: Global Economic Realities and Educational Reform
- Critical Thinking and Parenting

Information on the Regional Workshops and membership information for the National Council for Excellence in Critical Thinking will also be available at the Resources display. Members of the Foundation staff, led by John Pruess, will be available to answer your questions at the exhibit, located in the Dining Commons.

## CONFERENCE HISTORY

**T**HE 1993 CONFERENCE on Critical Thinking and Educational Reform reflects the development implicit in the twelve annual conferences which have preceded it. From the beginning, the First National Conference on Critical Thinking, Moral Education, and Rationality (1981), the concept of critical thinking we have fostered has been a comprehensive and deep one supported by intellectual standards and an emphasis on self-assessment, while remaining linked to broadly-based ethical concerns.

We began, in 1981, by bringing together some of the finest philosophical minds to reflect upon this crucial area of concern. Nicholas Rescher, Michael Scriven, Joseph Ullian, Julius Moravcsik, Ruth Marcus, Ralph Johnson, J. Anthony Blair, and Mary Anne Warren were among those who set us on our way. Beginning with those thinkers capable of the most profound and self-critical thought was an excellent foundation on which to build, however, we quickly saw that if progress were to be made, we had to expand our efforts to involve decision-makers at all levels of education. We were well aware that reports on educational reform would not reform education. Very often these reports themselves were in need of critique.

Subsequent conferences have been expanded progressively, growing to include more emphasis on students' crucial early years and on the forces and factors affecting the realities of teaching. We have sought to augment and unfold sound theory with models of sound practice — hence our growing emphasis on workshops and video-tapes modeling instruction which are offered by our sister organization, The Foundation for Critical Thinking. An exhibit of the resources of the Foundation will

be located in the Dining Commons. This year, nearly 300 presenters will join us at Sonoma State University for lively discussions, intense intellectual growth, and opportunities to see how far-reaching the growth in the critical thinking movement has become. The global pressures we face, given the accelerating change of our world and the increasing complexity of our problems, supports our earlier perceptions: critical thinking is an imperative for all, not a luxury for the few. More and more national leaders in every field are sounding the echo. The question is how we can help educators and business people to respond effectively.

Within the education family, there have been two central problems which we have faced in bringing together K-12 and college instructors. Many college instructors and theoreticians have had little experience trying to translate the results of their research into classroom strategies at the K-12 level. Many K-12 teachers, in turn, have little sympathy or patience for any theory that cannot immediately be so translated. The tension between the need for a theoretical foundation, a critical thinking foundation for critical thinking if you will, and the urgency for teachers to have in their hands tools to deal with the severity of student apathy and poor thinking is tempering for both K-12 and college instructors. The conference is an opportunity to join together and take a fairminded view toward the need for both theory and practice.

It is important to recognize that we are still very much in the beginning stages of educational reform based on the goal of creating critical thinking classrooms and workplaces. The challenge is with us to communicate the broadest, most comprehensive vision of critical thinking to teachers, to business people, and to parents. We have reason to think that the need for an annual conference in critical thinking will continue indefinitely and expand to serve more and more astute individuals who come to see the larger picture. Inertia is a powerful force. The deeply entrenched compartmentalization of knowledge, the increasing sophistication of propaganda and mass manipulation techniques, the continuing dominance of rote memorization and recall of facts as modes of learning, the growth of television and the electronic media, the increasing conflict of opposing ideologies in the global village, the acceleration of misunderstanding and stereotype in international politics, the growing desire for a simplistic explanation of life wherein opposing groups are identified as essentially "good" or "evil," — all argue for the pressing need for fairminded critical thinking abilities and traits, underpinned with intellectual standards so necessary for self-assessment of thinking and thus, for continuous improvement.

We assume that all of the participants in the conference bring to it a shared general interest in critical thinking, understood as a family of interdependent intellectual skills and abilities in need of support by a complex of rational passions. We assume as well, then, that all participants share a commitment to the principle that such abilities and affective qualities can only be developed over an extended period of time and as the result of careful cultivation. We expect, therefore, that all participants will have some interest in the unique and necessary contributions of others working in diverse subject areas and at various educational levels.

Those who teach the early grades need to understand and appreciate the superstructure that is to be built upon the foundations they help to lay. Those who teach the middle grades need to understand and appreciate what has come before and what is to follow. And those who teach the later grades need to provide the capstones that will solidify the skills, insights, and passions that can secure life-long learning grounded in deeply internalized critical thinking abilities. Thus we hope that all participants will make some effort to communicate with and build connections to others, to reach out beyond the parochialism of subject matter and grade level.

At the same time, we realize that special interest groups exist within the critical thinking movement and need to develop along a manifold of directions. We will be accommodating this need in numerous ways: 1) by classifying all presentations with a label that indicates possible special interest concerns (see audience code chart on page ajab and facing the inside back cover), 2) by listing sessions by special interest categories (see the grouped by interest section on page ajab), and 3) by setting up a meeting time on Sunday evening (7:00 pm) for groups to organize themselves into networks (see the section entitled Special Interest Groups, page ajab, for more information on these special interest meetings).

The evening social hours are intended to be an integral part of the conference. We are encouraging all of the presenters to make themselves available for the social hours in order to facilitate exchanges which are rarely possible in question and answer periods. We welcome you to this feast for the mind!

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## CONFERENCE THEME

**E**ACH YEAR A conference theme is selected to address a current concern within the critical thinking community and to provide a thread of continuity between the various presentations. This year's conference focuses on the the new global economic realities and their implications for teaching and learning, business and politics, human rights and human conflicts, and population and the environment. Distinguished economist and social critic, Robert Heilbroner will join Richard Paul in three dialogue sessions that will focus on the social, political, and educational implications of the global changes. The nature of the new global economic realities are addressed in Paul's recently revised book, *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World*. Excerpts from the new chapter, "Accelerating Change, the Complexity of Problems, and the Quality of Our Thinking" are printed below. (Available in the Commons, are books by Richard Paul, Robert Heilbroner, Robert Reich, and Lester Thurow concerning the new global realities.)

### THE NATURE OF THE POST-INDUSTRIAL WORLD ORDER

The world is swiftly changing and with each day the pace quickens. The pressure to respond intensifies. New global realities are rapidly working their way into the deepest structures of our lives: economic, social, environmental realities — realities with profound implications for teaching and learning, for business and politics, for human rights and human conflicts. These realities are becoming increasingly complex; and

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they all turn on the powerful dynamic of accelerating change. This chapter explores the general character of these changes and the quality of thinking necessary for effectively adapting to them.

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We can no longer rely on the past  
to be the guide for the future.

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Consider the quiet revolution that is taking place in communications. From fax machines to e-mail, from bulletin board systems to computer delivery systems to home shopping, we are providing opportunities for people to not only be more efficient with their time, but to build invisible networks where goods, services, and ideas are exchanged with individuals the world over. But how is one to interface with this revolution? How much is one to learn and how fast? How much money should one spend on this or that new system? When is the new system cost effective? When should one wait for a newer development?

Can we deal with incessant and accelerating change and complexity without revolutionizing our thinking? Traditionally our thinking has been designed for routine, for habit, for automation and fixed procedure. We learned how to do something once, and then we did it over and over. Learning meant becoming habituated. But what is it to learn to continually re-learn? To be comfortable with perpetual re-learning? This is a new world for us to explore, one in which the power of critical thinking to turn back on itself in continual cycles and re-cycles of self-critique is crucial.

Accelerating change is intermeshed with another powerful force, the increasing complexity of the problems we face. Consider, for a moment, solid waste management. This problem involves every level of government, every department: from energy to water quality, to planning, to revenues, to public health. Without a cooperative venture, without bridging the territorial domains, without overcoming the implicit adversarial process within which we currently operate, the responsible parties at each tier of government cannot even *begin* to solve these problems. When they do communicate, they often do not speak honestly about the issues given the human propensity to mask the limitations of one's position and promote one's narrow but deeply vested interests.

These two characteristics, then, accelerating change and increasing complexity — with their incessant demand for a new capacity to adapt, for the now rare ability to think effectively through new problems and situations in new ways — sound the death knell for traditional methods of learning how to survive in the world in which we live. How can we adapt to reality when reality won't give us time to master it before it changes itself, again and again, in ways we cannot anticipate?

We can no longer rely on the past to be the guide for the future. Technology will continually race ahead, creating links that make the world smaller and smaller. New opportunities will continually emerge but within them are embedded new problems, hence the need for acute readiness and disciplined ingenuity. At every step along the way, how-

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World-class, internationally-competitive companies  
recognize the need to play a new game...

---

ever, polished, satiny voices will tempt us astray with slick, simplistic messages that appear to guide us back to the "tried and true." Often, these voices in fact coax us into policies and practices that continually sacrifice our long-term interests to someone's short-term gain. In business, education, and politics, the same sirens echo.

World-class, internationally-competitive companies recognize the need to play a new game and have re-organized themselves accordingly. As Laura Tyson explains,

*High productivity work-place organizations depend on workers who can do more than read, write, and do simple arithmetic, and who bring more to their jobs than reliability and a good attitude. In such organizations, workers are asked to use judgment and make decisions rather than to merely follow directions. Management layers disappear as workers take over many of the tasks that others used to do — from quality control to production scheduling. Tasks formerly performed by dozens of unskilled individuals are turned over to a much smaller number of skilled individuals. (Tyson, Laura D'Andrea. "Failing Our Youth: America's K-12 Education," *New Perspectives Quarterly*, Nathan Gordels, editor. Winter, 1993, p. 53)*

Bold changes in business organization and practices require parallel changes in education. Yet the U.S. public school systems, like most U.S. businesses, remain mired in the past, focused on lower order skills, and unresponsive to the need for higher order abilities. Again, as Laura Tyson puts it, "[Higher-order tasks] ... require higher-order language, math, scientific, and reasoning skills that America's K-12 education system is not providing."

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Our students deserve at least a fighting chance to compete, to rise to the challenges of the day

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Our students deserve at least a fighting chance to compete, to rise to the challenges of the day. Reconstructing and adapting our business and educational systems to teach our managers as well as our teachers and administrators how to create these higher order workplaces and classrooms, and then to expect them to do so in the ordinary course of their professional obligations, is our first major challenge. Today, at every level, we are failing this test, failing our students and workers, jeopardizing our future. What is missing is a genuine sense of what accelerating change entails and a shared public vision of the need for fundamental changes. Many of our leading economic analysts are struggling to create just such a new frame of reference within which we can come to terms with the new imperatives.

The necessary paradigm shifts, however, do entail the cultivation of critical thinking across the work force, up and down the lines of labor and management, across industries, across educational levels, and into the everyday discussions of national and international issues. This shift is painfully against the American grain, contrary to our traditional folk wisdom, and incompatible with much current thinking of both business and labor leaders.

### IMPLICATIONS

What, then, do we need to do?

- 1) *We must parent differently.* We must respond differently to our children's "Why?" questions. We must not give them short didactic answers, but must encourage them to conjecture as to the

answers. We must call more attention to the extent of our own ignorance and not try to convince our children that adults have good answers for most of their questions.

- 2) *We must work differently.* We must bring the reality of cooperative critical thinking into the workplace in a thorough way. This means that we must abandon quick-fix strategies and recognize the counterfeits of substantial change. We must become aware of the difference, for example, between the jargon of "Total Quality Management" (which we now have in abundance) and the reality (which we almost entirely lack).
- 3) *We must educate differently.* We can no longer afford the high cost of educators who have few or no critical thinking skills, and little or no motivation to develop them. Teachers and administrators who do not themselves think critically, cannot design changes in curriculum and instruction that foster critical thinking. We must come to terms with the most fundamental problem in education today and that is "the blind leading the blind." Many educators do not realize that they are functionally blind to the demands of our post-industrial world.

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## **WARNING! PSEUDO CRITICAL THINKING IS COMING**

Pseudo critical thinking is a form of intellectual arrogance masked in self-delusion or deception, in which thinking which is deeply flawed is not only presented as a model of excellence of thought, but is also, at the same time, sophisticated enough to take many people in. No one takes a rock to be a counterfeit diamond. It is simply other than diamond. But a zircon mimics a diamond and is easily taken for one and hence can be said to be a pseudo diamond.

Because critical thinking is becoming more and more important, there is more and more pseudo critical thinking being sold. Below you can read an example of the kind of battle you may be called upon to fight in your own state or country. Richard Paul made the following statement at a press conference in the governor's press room on July 14, 1993. The political battle is now under way.

Good morning, and thank you very much for coming. I'm Richard Paul, director of the Center for Critical Thinking at Sonoma State University and the chair of the National Council for Excellence in Critical Thinking, an organization founded by 700 concerned national educational leaders. The Council has established 12 Centers around the country concerned to ensure that fundamental intellectual standards are entrenched in education and to sound the alarm on ill-conceived approaches to education and thinking. We are today releasing a study, entitled "Pseudo Critical Thinking

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in the Educational Establishment." It demonstrates that the new California reading and writing assessment is so flagrantly ill-conceived and designed, and so poorly implemented, that it constitutes no less than educational malpractice. We intend this term in its literal meaning of "professional practice leading to injury" — in this case, injury to the students who will mislearn reading and writing under its sway and influence.

We are therefore calling on the governor, on the new superintendent of public instruction, on the State Board of Education, and on all interested citizens and civic leaders to act directly and unequivocally to ensure that this goliath of educational incompetence not be used as a guide for teaching and instruction, and that appropriate and significant reading and writing skills be identified, sound intellectual standards adopted, and a well-grounded assessment instrument developed, one which will truly serve the interests of all of our children.

Let me explain why we think this an issue of public importance. The ability to think critically and to reason in a disciplined manner is now well-recognized to be an essential ability for students to develop. It often decides issues of survival in a world of accelerating change and intensifying complexity.

The National Education Goals Panel (consisting of 8 governors, two administration members, and four members of Congress), in its 1992 Goals Report, has declared critical thinking and sound reasoning to be national goals. Joined with this bi-partisan effort, the U.S. Departments of Labor and of Commerce have been working with the Department of Education to facilitate the development of national standards and assessment of critical thinking, problem-solving, and communication skills.

A growing number of business leaders, such as John Scully, President of Apple Corporation, have emphasized the importance of critical thinking. Scully, in fact, identifies the schools' ignoring of critical thinking to be the fundamental reason for their failure. He sees critical thinking as indispensable for the jobs of the future. Even the California Department of Education itself has given lip service to the importance of critical thinking in its curriculum frameworks and many of its other publications.

But here is the crucial link for our purpose today. The manner in which students learn to read and write is an indispensable cornerstone in their development of tools essential for their economic survival. Indeed, critical thinking and disciplined reasoning play a pivotal role in competent reading and writing. Many basic and essential reading and writing

skills are none other than the skills of a critical reader and writer. These include such basic abilities as:

#### IN READING

- the ability to identify the main purpose of an author
- the ability to identify, analyze, and assess basic assumptions of an author
- the ability to identify, analyze, and assess the conclusions of an author and what the author is basing her conclusions on

#### IN WRITING

- the ability to write for a specific purpose and to a specific audience
- the ability to formulate significant questions, problems, and issues
- the ability to gather relevant information and evidence
- the ability to give good reasons and engage in sound reasoning in supporting what one is saying

Finally, I should note — for it is here that the California assessment is most deficient — that the hallmark of disciplined thinking is given in its regular use of traditional intellectual standards, such as clarity, precision, relevance, and consistency, which sound thinkers learn to apply routinely to their own thinking in cycles of self-correction.

Unfortunately, however, the California Department of Education's new reading and writing tests roundly ignore critical reading and writing. Instead they have developed, at great public expense, over a number of years, involving thousands of work hours of hundreds of people, an assessment that is hopelessly subjective and ill-conceived. It is an assessment instrument so riddled with fundamental flaws that it can only be called a colossal example of educational malpractice. It systematically encourages the use of vague categories and deficient practices. It guarantees that teachers, students, and the general public will be misled. It systematically rewards the wrong set of values: those which are subjective, idiosyncratic, and irrational.

The result is, ironically, that were the writings of Adolph Hitler to be assessed by their adopted standards, he would literally receive the highest possible score, that of exemplary writing, under the CAP system!

Furthermore, it is clear that the test has been devised precisely to raise test scores, particularly those of racial and ethnic minorities. The high test scores guaranteed by the ill-conceived California Language Arts Assess-

ment will doubtless produce political gain for both the Department of Education and for the local educators who can then celebrate over their "success". But the children and the economy will pay the price for that success.

Employers are not looking for workers who, when required to read, figure out, and apply basic material in a technical manual, will create a "creative and subjective interpretation" of what is there. Instead they want workers who can identify clearly and precisely what the manual actually says. They want workers who can write clear and precise sentences, who can contribute by their disciplined reading, writing, speaking, and listening to effective problem identification, analysis, and solution.

These fundamental needs of business and industry, these fundamental abilities of the truly educated and disciplined reader and writer, are systematically ignored in the new California reading and writing assessment. The assessment tool as it now stands is not just an educational Edsel, it is an educational Titanic. It guarantees that our children will remain hopelessly undisciplined and unskilled, unable to read and write with clarity, precision, and accuracy, unable to use reading, writing, speaking, and listening as basic tools of everyday problem solving and communication. Well-reasoned reading and writing is essential to our children's lives as citizens, as family members, and as workers.

Furthermore, without the basic skills of critical reading and writing in place, our children will have no hope of developing the ability to reason scientifically, to reason mathematically, to reason historically, to reason geographically, to reason, in short, as a well-educated person must to be successful in a world increasingly dependent on complex problem solving and high quality thinking. We can ill afford to exchange our children's future and our economic well-being for the short-term political gains which the new California test is designed, wittingly or unwittingly, to achieve.

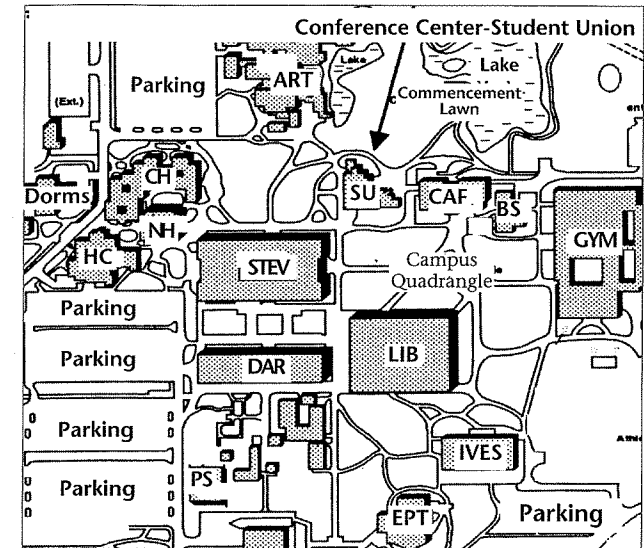
We are therefore calling, as I have said, on the governor, on the superintendent of public instruction, on the State Board of Education, and on all interested citizens and civic leaders to act directly and unequivocally to ensure that this goliath of educational malpractice not be used as a guide for teaching and instruction. Instead, appropriate and significant critical reading and writing skills should be identified, sound intellectual standards articulated and adopted, and a well-grounded assessment instrument developed, one which will well serve the interests of all our children by preparing them to compete effectively in a rapidly changing world.

## HOW TO FIND THE SESSIONS YOU WANT TO ATTEND

**D**UE TO THE large number of sessions, we have designed the Conference Schedule with a number of special sections, each of which lists the sessions in a unique way: chronologically, by presenter name, and some sessions listed by selected audience codes (see page 61). The following recommendations may make planning your conference attendance easier.

- Each session has audience codes which indicate areas addressed. Most of these codes are assigned by the presenter. The key to these codes is located on page 31, as well as on the last page of the program.
- The conference schedule section is best used to view the schedule as a whole. It lists the sessions chronologically, giving the presenter name(s), session title, location, and audience codes. The abstracts can be located by referencing the presenter's name.
- The abstracts are listed alphabetically by presenter's name. If there are some speakers you especially want to see, you can find out what talks they will give and when.
- There is also a listing of some sessions by selected audience codes. This section is not intended to give a complete list of every session addressing that category, but rather to highlight some that have especially strong emphasis in those areas. Again, the abstracts can be found by referencing the presenter's name.

- If you're especially interested in hands-on sessions, check the abstract. Many abstracts describe the nature of the session, as well as more detail about the content. If the abstract is unclear, arrive early and ask the presenter if the session is hands-on.
- For your convenience, we've included a planning guide on page 32. This worksheet can be used to list the sessions you plan to attend, as well as back up options.
- Some sessions will inevitably attract many attendees. Because this is difficult to predict, you should always have one or two back-up sessions selected just in case your first and second selections are already filled.
- Mark all changes from the Special Announcements and Changes Sheet (included in the conference handouts picked up at registration) in your schedule.



AUDIENCE CODES

ELEM.....	elementary school
MID/HIGH.....	middle/high school
K-12.....	kindergarten-12th grade
COLL.....	post-secondary education
ADV.....	advance session
BEG.....	beginners in critical thinking
BUS.....	business
CONF THEME.....	related to conference theme
COMPUTER ASST ED.....	computer assisted instruction
ECON.....	economics
ENV.....	environment
FEM.....	feminism
G.....	general
HEALTH.....	health sciences
H CON.....	human conflicts
H RIGHTS.....	human rights
LANG.....	language arts/English
MATH/SCI.....	math/science
MEDIA.....	media, media literacy
MUL-CULT.....	multi-culturalism
PEACE.....	peace studies
POL.....	politics, political science
PSYCH.....	psychology
SOC STUD.....	social studies
SOCIOL.....	sociology
STAFF DEV.....	staff development
TEST.....	testing and assessment
THEORY.....	theoretical orientation

## INDIVIDUAL PLANNING GUIDE

	SUNDAY	MONDAY
8:45 AM to 10:15 AM	9:00 AM Keynote # 1 Richard Paul (Commencement area)	
10:30 AM to 12:00 PM	10:30 AM Keynote # 2 Robert Heilbroner (Commencement area)	

Please Note: Lunch Break from 12:00 pm - 1:30 pm OR 1:45 pm - 3:00 pm  
(Dorm residents between 11:30 am - 1:30 pm only;  
in Residence Dining Hall)

12:15 PM to 1:45 PM		
1:30 PM to 3:00 PM		
3:15 PM to 4:45 PM		
5:00 PM		5:30 PM-8:00 PM Banquet (Commons)
6:00 PM		
7:00 PM	7:00 PM-11:00 PM Evening Social, including Special Interest Groups, see page 58 (Commons)	8:00-9:15 National Council Meeting (SU multi- purpose room)
8:00 PM		8:00-11:00 Evening Social (Commons)
9:00 PM		
10:00 PM		
11:00 PM		

	TUESDAY	WEDNESDAY
8:45 AM to 10:15 AM		
10:30 AM to 12:00 PM		

Please Note: Lunch Break from 12:00 pm - 1:30 pm OR 1:45 pm - 3:00 pm  
(Dorm residents between 11:30 am - 1:30 pm only;  
in Residence Dining Hall)

12:15 PM to 1:45 PM		
1:30 PM to 3:00 PM		Last Session Wrap-up [Ives (Warren)]
3:15 PM to 4:45 PM		
5:00 PM		
6:00 PM		
7:00 PM	7:00 PM-11:00 PM Evening Social (Commons)	
8:00 PM		
9:00 PM		
10:00 PM		
11:00 PM		

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## CONFERENCE SCHEDULE

### SUNDAY

**9:00 AM – 10:15 AM**

**RICHARD PAUL** ..... COMMENCEMENT AREA  
*Critical Thinking and Educational Reform for the 21<sup>st</sup>  
 Century and the New Global Economic Realities*

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**10:30 AM – 12:00 PM**

**ROBERT HEILBRONER** ..... COMMENCEMENT AREA  
*The New Global Economic Realities and Critical Thinking*

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**12:00 PM – 1:30 PM OR 1:45 PM – 3:00 PM**

**LUNCH** ..... DINING COMMONS  
*Dorm residents between 11:30 – 1:30 only: Residence Dining Hall*

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**12:15 PM – 1:45 PM**

**WILLIAM A. DORMAN, RALPH JOHNSON** ..... IVES 119  
*Media Logic* MEDIA, MID/HIGH, COLL

**RICHARD POPE** ..... STEV 3008  
*The Debating Process Instills Critical Thinking in Your Elementary  
 School Students and Makes You Thinner, Sexier, and Attractive to  
 Movie Stars!* ELEM, BEG

**PETER FACIONE, NOREEN C. FACIONE** ..... STEV 2049  
*Assuring Critical Thinking in the Professional Nurse: A Response to  
 NLN Criterion 20* HEALTH, TEST, COLL

**JACKIE A. GIULIANO** ..... ART 108  
*The Introduction of Feminist Philosophy and Spirituality into the  
 Classroom Through Environmental Studies* FEM, ENV, COLL, MATH/SCI

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**SUNDAY**

**12:15 PM – 1:45 PM**

Continued

- MARY E. DIETZ, BOB VAN ZANT** ..... STEV 3036  
*Professional Development Portfolio: A Constructivist Approach for Professional Development* K-12, STAFF DEV, TEST, ADV
- RICHARD S. HALL** ..... STEV 3026  
*The Impact of Critical Thinking on Corporate Training* BUS
- LES GOTTESMAN** ..... NICH 204  
*Asking Dumb Questions* G
- C. LINCOLN JOHNSON** ..... STEV 3030  
*Religious Values and Critical Thinking: The Quest Dimension* SOCIOL, MUL-CULT, H CON

**1:30 PM – 3:00 PM**

- GERALD NOSICH** ..... IVES (WARREN)  
*An Introduction to Critical Thinking: What Is It? Why Should I Teach for It? How Can I Teach for It?* G, BEG
- LORENZ BOEHM** ..... STEV 1002  
*Natural Allies: Teaching, Learning, Writing, and Critical Thinking, Part I* COLL, TEST, MID/HIGH
- JANE WILLSEN** ..... SUMPR  
*Critical Thinking and Parenting: Expanding Your Critical Thinking Community to Include Parents* K-12, STAFF DEV
- CONNIE DE CAPITE** ..... STEV 3072  
*Critical Thinking for All Students* LANG, SOC STUD, SCI
- ROBERT SWARTZ, SANDRA PARKS** ..... DAR 112  
*Infusing Critical and Creative Thinking into Content Instruction* G
- BONNIE BAKER THORNE, ANN JERABEK** ..... IVES 35  
*Developing Strategies That Use Critical Thinking to Infuse a Global Perspective into the Curriculum* K-12, SOC STUD
- WILLIAM TAYLOR** ..... STEV 3049  
*Helping Students Acquire the Knowledge About Which We Want Them to Think Critically* COLL, MID/HIGH, SOC STUD
- JOHN O'BRIEN** ..... IVES 78  
*Thinking in the Workplace* HIGH, COLL, SCI, BUS
- DENNIS MARTINEZ** ..... DAR 139  
*Traditional Indigenous Knowledge and Western Science: Cross-Cultural Perspectives on Environmental Knowledge* ENV, MUL-CULT

- LEAH SHELEDA** ..... DAR 137  
*Does Logic Teach Critical Thinking?* COLL, TEST, LANG, ADV
- MICHAEL FEER** ..... STEV 3046  
*Decision Making and the World Market-Place* ECON, CONF THEME
- GEORGE M. LUCKEY, JR.** ..... STEV 2065  
*Critical Thinking and Active Learning Across the Curriculum* G, TEST
- PAUL ADY** ..... IVES 45  
*Bringing the Play Element into Critical Thinking Instruction: The Brutus Family of Dysfunctional Arguers* LANG, MEDIA, G
- HERMAN HALUZA** ..... STEV 3077  
*Critical Thinking, the Narrative, and the Post-Modern Condition* COLL, H CON, LANG, SOC STUD

**3:15 PM – 4:45 PM**

- ROBERT HEILBRONER, RICHARD W. PAUL** ..... EPT  
*"The Relentless, Ubiquitous Pressure for Change:" How Do We Protect the Public Good* G, CONF THEME
- YEHUDI O. WEBSTER, DAN WEIL, WILLIAM ZEIGER, HILDA CABANEL-EVANS, SUSAN M. AWBREY** ..... IVES (WARREN)  
*Panel Discussion on Multi-Culturalism* MUL-CULT
- LORENZ BOEHM** ..... STEV 1002  
*Natural Allies: Teaching, Learning, Writing, and Critical Thinking, Part II* COLL, TEST, MID/HIGH
- JOHN CHAFFEE** ..... IVES 119  
*Teaching and Evaluating Critical Thinking in the Disciplines* COLL, MID/HIGH
- JIM POLLARD** ..... STEV 3008  
*A Different Way of Thinking* ADV, BUS, H CON, G
- MACGREGOR EDDY** ..... STEV 2049  
*From Novice to Expert in the Era of the Information Overload* HEALTH, COLL
- JUDY R. DOWNS** ..... ART 108  
*A Mini-Workshop in Critical and Creative Thinking* K-12, COLL, LANG
- NANCY C. GLOCK** ..... STEV 3072  
*Towards a More Powerful Model of Critical Thinking: Reclaiming Inter-Cultural Ways of Knowing* MUL-CULT, H CON, ADV
- ANN KERWIN, MARLYS H. WITTE, CHARLES L. WITTE** ..... IVES 35  
*"The Unanswered Question" Meets "The Ultimate Learning Center"* G, HEALTH
- JAMES GEIGER** ..... DAR 112  
*Toward a Philosophy of Critical Thinking* H CON, POL

**SUNDAY**

**3:15 PM – 4:45 PM**

Continued

- RAQUEL HENRY, NELLIE THOROGOOD, ROSE AUSTIN** ..... STEV 3049  
*Classroom, Curriculum, and Leadership Reforms: Developing Critical Thinkers in the Community College* COLL, STAFF DEV
- JAMES P. MARSHALL** ..... IVES 78  
*Practicing Democracy in the Classroom Through the Application of Critical Pedagogy* COLL, H CON, MID/HIGH, SOCIO
- GRADY E. WILLIAMS III** ..... DAR 139  
*A Role-Playing Model for Introducing Critical Thinking and Creative Concept Structuring in Environmental Science* ENV, SCI, G
- JOHN F. LOASE, SHERRON SARGENT** ..... DAR 122  
*Sigfluence Our Positive Influence Over Time: A Quantitative and Qualitative Analysis* MATH/SCI, PSYCH, TEST
- KRISTAN CAVINA** ..... NICH 173  
*Teaching Critical Thinking in the Writing Class* LANG, COLL
- KATHERINE Z. SMITH, HARRIET CHAMBERLAIN** ..... STEV 3046  
*Global Peace Games: A Role-Play Using Lawrence Kolberg's Stages of Moral Development* PEACE, POL, PSYCH, H CON
- DENNIS MATTHIES** ..... IVES 79  
*The New Economy, the New Pedagogy* G
- PETER FACIONE** ..... DAR 137  
*Classroom Critical Thinking Assessment — The Basic Ways and Means* TEST, SOC STUD, COLL, MID/HIGH
- T. EDWARD DAMER** ..... STEV 3040  
*A Positive Approach to the Teaching of the Fallacies: A Simple Method for Distinguishing "Good" Arguments from "Bad" Ones* G, ADV
- FRAN TOOMEY** ..... STEV 3036  
*Community Centered Learning: A Model for Creating a Thinking Community* COLL, PSYCH, SOCIO, HIGH
- DIANE D. CHEATWOOD** ..... STEV 2065  
*Thinking Across the College: The Integrated Thinking Skills (Faculty) Project Expands* HIGH, COLL, STAFF DEV
- DONALD R. KLEIN** ..... NICH 204  
*Critical Thinking and the Committee Process* G, H CON, STAFF DEV
- GLEN HARPER** ..... STEV 3028  
*Come Think With Me: Assumptions, Backing Up to the Start* H CON, K-12, BEG

- BARRY LESHOWITZ, ELAINE YOSHIKAWA** ..... IVES 45  
*How to Reduce Cognitive Bias and Promote Critical Thinking* COLL
- JOEL PETERSON, MARY ASPNES, CONNIE STACK** ..... STEV 3030  
*Thinking on All Four Burners: A Holistic Approach Which Recognizes Diversity in Good Thinking* COLL, LANG
- CYNTHIA A. BARNES** ..... STEV 3077  
*Mapping: Getting Students, Not Faculty, to "Cover the Material"* G
- GEORGE COLLISON** ..... STEV 1040  
*Visiting the Rainforest Via Computer Simulation and Linking up for Awareness of Global Problems* MID/HIGH, ENV, COMPUTER ASST ED

**7:00 PM**

- SPECIAL INTEREST GROUPS** ..... DINING COMMONS  
 Please see page 58 for details.

**7:00 PM – 11:00 PM**

- EVENING SOCIAL** ..... DINING COMMONS

**MONDAY**

**8:45 AM – 10:15 AM**

- YEHUDI O. WEBSTER** ..... IVES (WARREN)  
*Multi-Culturalism and Critical Thinking: Compatibility or Competition?* G, MUL-CULT
- EDWARD D'ANGELO** ..... STEV 1002  
*Critical Thinking in Law* COLL, HIGH, H RIGHTS, H CON
- JOHN CHAFFEE** ..... IVES 119  
*Designing an Effective Course in Critical Thinking* COLL, MID/HIGH
- JANE WILLSEN** ..... SUMPR  
*Critical Thinking: The Magic Wand That Integrates Curriculum* ELEM, MID, STAFF DEV
- MARK WEINSTEIN** ..... CAR 68  
*Critical Thinking and the Goals of Science Education* SCI, COLL, HIGH
- JIM POLLARD** ..... STEV 3008  
*Who Is the Boss? (An Empowerment Workshop)* COLL, BUS, H CON
- ROBERT SWARTZ** ..... STEV 2049  
*Assessing the Quality of Student Thinking: Techniques for Classroom Teachers* TEST, G

**MONDAY**

**8:45 AM – 10:15 AM**

Continued

- JACKIE A. GIULIANO** ..... ART 108  
*The Development of Social Responsibility and Environmental Awareness Through Techniques in Critical Teaching — A Community Involvement Approach* ENV, TEST, MATH/SCI, SOC STUD
- ELAINE R. OGNIBENE** ..... STEV 3072  
*Stories About Schooling: Multi-Cultural Fictions that Challenge and Create* MUL-CULT, COLL, FEM, MID/HIGH
- SUSAN M. AWBREY** ..... IVES 35  
*Educating Critical Thinkers for a Democratic Society* COLL, MUL-CULT, POL, SOCIO
- DONALD HATCHER** ..... DAR 112  
*Thinking Critically About Public Policy Issues* CONF THEME
- WILLIAM TAYLOR** ..... STEV 3049  
*Leading Classroom Discussions to Promote Critical Thinking* COLL, MID/HIGH, SOC STUD
- OGDEN MORSE** ..... IVES 78  
*Points of View: The Application of Thinking Skills to Subject Matter* MID/HIGH, COLL
- JUAN MIGUEL FERNANDEZ-BALBOA** ..... DAR 139  
*Educational Reform for Social Transformation and Environmental Renewal* ENV, SOC STUD, CONF THEME
- JUDITH COLLISON** ..... DAR 122  
*Overcoming Math Anxiety of Elementary School Teachers* MATH, ELEM, TEST
- GEORGE H. HANFORD** ..... STEV 3046  
*How to Save the World: Through Critical Thinking* MUL-CULT, CONF THEME
- WEBSTER E. COTTON** ..... DAR 137  
*Thinking, Language, and the Human Project: Re-Discovering the Meaning or Significance of Plato's Allegory of the Cave* PSYCH, SOCIO, H RIGHTS, COLL
- DONALD JOHNS** ..... NICH 173  
*Literature, Empathy, and Critical Thinking* LANG, COLL, MUL-CULT, MID/HIGH
- JOEL PETERSON, CONNIE STACK, MARY ASPNES** ..... STEV 3040  
*Strategies for Developing Critical Thinking Which Is Factual, Imaginative, and Value-Conscious as Well as Logical* COLL, ADV

- NOREEN FACIONE, CAROL SANCHEZ, PETER FACIONE** ..... STEV 3036  
*Gender and Critical Thinking — A Look at the Data* FEM, PSYCH, COLL, ADV
- CHARLES V. BLATZ** ..... STEV 3026  
*Critical Thinking and the Sovereignty of Political and Economic Communities* ADV, BUS, ECON, POL
- TARA D. KNOTT** ..... STEV 2065  
*The Thoughtful Use of Distance Education Technology* TECHNOLOGY, G
- MONICA M. C. KOEP** ..... NICH 204  
*On the Need for Critical Thinking About Democracy in Namibia* MUL-CULT, H RIGHTS
- GLEN HARPER** ..... STEV 3028  
*Come Think With Me: Dealing With Real Problems by Thinking* H CON, K-12, ADV
- DARLENE BOYD** ..... IVES 45  
*Teaching: A Conceptual Analysis* G, ADV
- JEANNETTE M. CATSOULIS** ..... STEV 3030  
*Gender Conflict: Images of Women in Advertising* MEDIA, FEM, SOC STUD
- BARBARA FORREST** ..... STEV 3077  
*Back to Basics: The Use of Newspapers and Other Print Media to Teach Analytical Reading, Writing, and Reasoning* MEDIA, LANG, G
- GREGORY RICH** ..... NICH 304  
*Critical Thinking at Fayetteville State University: An Initial Assessment* COLL, TEST

**10:30 AM – 12:00 PM**

- ROBERT HEILBRONER, RICHARD W. PAUL** ..... EPT  
*Robert Reich's Vision of the New Global Economic Realities: Do We Need Workers Who Can Think Critically? How Broadly and Well Must Citizens Learn to Think?* G, CONF THEME
- WILLIAM A. DORMAN** ..... STEV 1002  
*In Galileo's Garden: Thinking Critically About a Changed and Changing World* PEACE, POL, ECON
- DAN WEIL** ..... SUMPR  
*Critical Thinking, Critical Writing, and Literature-Based Whole Language Instruction* ELEM
- JOHN BARELL** ..... IVES 119  
*Toward Antarctica: Autobiography, Narrative, and Critical Inquiry* G, LANG
- WENDY OXMAN** ..... CAR 68  
*Many Faces of Critical Thinking* G



**MONDAY**

**10:30 AM – 12:00 PM**

Continued

- JANET L. WILLIAMSON** . . . . . STEV 3008  
*Portfolios: Monitoring Student Thinking* K-12
- PENNY HEASLIP** . . . . . STEV 2049  
*Shifting Paradigms in Education and Health Care Reform: A Nursing Perspective* HEALTH, COLL, CURRICULUM, POL
- MARLYS MAYFIELD** . . . . . ART 108  
*Four Approaches to Conscious Problem Solving: A Critical Thinking Tool Kit for Classroom or Community Use* G, H CON
- DOMINGA L. REYES, KEVIN McCORMACK** . . . . . STEV 3072  
*Global Education: The Way to Peace* MUL-CULT, PEACE, COLL, MEDIA
- MARLYS H. WITTE, ANN KERWIN, CHARLES L. WITTE** . . . . . IVES 35  
*It Pays to Be Ignorant: The Costs and Value of Not-Knowing* K-12, COLL, HEALTH
- JOSEPHINE NAEHRBASS, GAIL KENDALL** . . . . . STEV 3049  
*"Putting It all Together:" An Integrated Staff Development Model* G, STAFF DEV
- HENRY N. BUSCHER, LIANNE K. SCHNEIDER** . . . . . DAR 139  
*Environmental Ethics in the New Global Economy: A Critical Thinking Approach for Secondary Students* MID/HIGH, ENV, SOCIO, ECON
- GLORIA PIERCE** . . . . . IVES 78  
*The Centrality of Critical Thinking in Educating for Diversity* COLL, BUS, MUL-CULT, SOCIO
- MELVIN POAGE** . . . . . DAR 122  
*A Critical Thinking Approach to Mathematics* MATH, COLL, MID/HIGH
- WILLIAM K. MAREK** . . . . . STEV 3046  
*Reason (Unreason), Thought (Rational and Irrational), and Human Conflict* PEACE, H CON, PSYCH
- CHARLES ANGELETTI** . . . . . IVES 79  
*Relics, Letters, and Walk-Abouts: Creative Expression Through Critical Thinking* COLL, SOC STUD
- T. EDWARD DAMER** . . . . . STEV 3040  
*How to Construct Effective Moral Arguments* G, ADV
- THOMAS TOMINAGA** . . . . . STEV 3026  
*Agenda of the "Middle-Way" Logic of Buddhist Economics for Economic Realities and their Implications* ECON, CONF THEME, MUL-CULT

- LAWRENCE WEINSTEIN** . . . . . STEV 3036  
*Papers Can Wait: A Freshman Composition Course in Which Practice in Inquiry Comes First* COLL, LANG
- RON MCBRIDE, GLENDA W. BEAMON** . . . . . STEV 2065  
*Preparing the Future Critical Thinker: Structuring the Middle School Learning Environment for Critical Thinking* MID, G
- LYNN P. DIETER** . . . . . STEV 3028  
*A Model to Teach Ethical Decision Making* MID/HIGH, COLL, H CON, LANG
- CHRISTINA SLADE** . . . . . IVES 45  
*Critical Thinking in Groups* COLL, MEDIA, LANG, TEST
- JANNA LEE HUGO** . . . . . STEV 3030  
*Teaching to the Brain* K-12
- GRANT LUCKHARDT** . . . . . NICH 304  
*Criteria for Assessing Authorities* COLL, TEST
- FLORENCE FAY PRITCHARD** . . . . . NICH 166  
*Negotiating and Using Frames to Develop Specific Critical Thinking and Writing Skills* LANG, G
- CANDACE JESSE STOUT** . . . . . STEV 2083  
*Writing for Critical Thinking in the Arts* G, ART
- ERNEST ROSENBERG** . . . . . STEV 1040  
*What Are the Most Relevant Science and Social Science Curricula for the Future?* COMPUTER ASST ED, ENV, ECON, COLL, HIGH

**12:00 PM – 1:30 PM OR 1:45 PM – 3:00 PM**

- LUNCH** . . . . . DINING COMMONS  
*Dorm residents between 11:30 – 1:30 only: Residence Dining Hall*

**12:15 PM – 1:45 PM**

- STUART M. KEELEY** . . . . . IVES (WARREN)  
*What Can Psychotherapists Tell Us About How to Cope with Resistance to Critical Thinking* PSYCH, COLL
- MARK WEINSTEIN** . . . . . STEV 1002  
*Educating for Development: Critical Thinking Across the Disciplines* ENV, ECON, H RIGHTS, STAFF DEV
- LYNDA N. BROWN, SANDRA A. JONES** . . . . . STEV 2049  
*Critical Thinking: A Super-Ordinate Concept for Teaching Nursing* HEALTH, TEST
- HILDA CABANEL-EVANS** . . . . . STEV 3072  
*Ethnic Multi-Culturalism: Not for the 21<sup>st</sup> Century* MUL-CULT
- VIRGINIA O'KEEFE** . . . . . IVES 78  
*Empowering Students and Teachers Through Critical Thinking Research* STAFF DEV, MID/HIGH, LANG

**MONDAY**

**12:15 PM - 1:45 PM**

Continued

- EDWARD RIPPY** ..... STEV 3046  
*The Multiple Costs of "Defense:" Spending Money, Freedom, and Blood to Protect "Our" Vital Interests Around the Globe* PEACE, MEDIA, ECON, PSYCH
- PETER F. BELL** ..... STEV 3026  
*Integrating Race and Gender into the Economics Curriculum: Theory and Classroom Practice* ECON, MUL-CULT, FEM, COLL
- FRANCINE MALDER JAMIN** ..... IVES 45  
*A Small Band in a Circle of Light — Teaching Writing and Reasoning in a "Quality Circle"* LANG, COLL, MID/HIGH
- ROBERT N. GILBERT** ..... STEV 3030  
*Doing Survey Research in the Intro Social Science Course: Putting Science Back into Social Science, an Example of Critical Thinking* SOC STUD, HIGH
- LETITIA M. JOHNSTON, CONNIE CANTRELL** ..... STEV 3077  
*Risk Taking and Real Issues: A Perspective of the Teacher as Learner* C, CURRICULUM DEVELOPMENT
- TED LINDEN** ..... STEV 2083  
*Toward a New Generation of Educational Software to Teach Critical Thinking* COMPUTER, MID/HIGH

**1:30 PM - 3:00 PM**

- MATTHEW LIPMAN** ..... IVES 119  
*Philosophy for Children as Critical/Creative Thinking* K-12
- GERALD NOSICH** ..... SUMPR  
*Critical Thinking in the Disciplines: The "Logic of" a Discipline* G, BEG
- JANE WILLSSEN** ..... CAR 68  
*Teaching High School Students How to Assess Their Own Thinking* HIGH, TEST, BEG
- DENNIS MATTHIES** ..... STEV 3008  
*Plowing and Grinding vs. Working Reflectively* G, BEG
- JOHN HOAGLUND** ..... ART 108  
*Pre- and Post-Testing a College Critical Thinking Course* COLL, TEST
- RICHARD OGNIBENE** ..... IVES 35  
*Thinking Critically about the Total Quality Movement in Education* STAFF DEV, K-12
- EILEEN GAMBRILL** ..... DAR 112  
*Behavioral Analysis: A Complement to Thinking Critically About Global Problems* ENV, PSYCH, COLL

- DEANNA YAMEEN, LYNN CHONG, FREDERIC TORZS, PATRICIA ALLEN** ..... STEV 3049  
*Thinking About Thinking: Uncovering Ideologies in Thought* COLL, MUL-CULT
- RICHARD B. LEWIS** ..... DAR 122  
*Critical Thinking in All Engineering Classrooms* ENGINEERING, MATH/SCI, COLL
- JOHN BYRD** ..... NICH 173  
*Metaphorical Thinking in the 21<sup>st</sup> Century: Frill, Option, or Sina Qua Non?* LANG, SOC STUD, MID/HIGH
- BRADLEY BOWEN** ..... STEV 3040  
*Justifying Critical Thinking* THEORY, COLL
- TIMOTHY M. MELCHIOR** ..... STEV 3036  
*Connecting Learning Through Thinking Dichotomies: Memorial's (Valley Stream, New York) Polar Conflicts* STAFF DEV, K-12
- ERVIN SPARAPANI** ..... STEV 2065  
*The Thinking/Learning System: A Strategy for Independent Thinking and Learning* G
- DAVID GLAUBINGER** ..... STEV 3028  
*Don't Worry! We'll Teach You Everything You'll Need to Know* ADULT EDUCATION
- CRAIG GIBSON** ..... NICH 304  
*Critical Thinking in the Research Process* LIBRARY SCIENCE, G, SOC STUD

**3:15 PM - 4:45 PM**

- ROBERT HEILBRONER, RICHARD W. PAUL** ..... EPT  
*Lester Thurow's Vision of the New Global Economic Realities: Can We Develop a First-Rate Economy and First-Rate Standard of Living, if Citizens Learn Merely Work-Related Skills and Cannot Think Critically Within Alternative Points of View?* G, CONF THEME
- LORENZ BOEHM, MARK WEINSTEIN** ..... IVES (WARREN)  
*Balancing Acts: Working With Colleagues to Teach Critical Thinking* STAFF DEV, COLL
- YEHUDI O. WEBSTER** ..... STEV 1002  
*Are There White and Black People? Reasoning About Racial Classification* G, SOC STUD, MUL-CULT
- DAN WEIL** ..... SUMPR  
*Reasoning Within Different Cultural Points of View: Using Language Instruction for Early Childhood Social Studies* ELEM
- JOHN CHAFFEE, SANDRA DICKINSON** ..... IVES 119  
*Critical Literacy and Critical Thinking: Partners in Education* LANG, COLL, MID/HIGH

**MONDAY**

**3:15 PM – 4:45 PM**

Continued

- CHET MEYERS** ..... CAR 68  
*Creating an Active Learning Classroom that Encourages Critical Thinking* COLL, MID/HIGH
- JOHN R. FEARE, SANDRA PARKS, ROBERT SWARTZ** ... STEV 3008  
*Critical Thinking and Global Economics Within a Theological Dimension* CONF THEME
- DONALD LAZERE** ..... STEV 2049  
*Literature for Critical Thinking* COLL, MID/HIGH
- MAURICE A. FINOCCHIARO** ..... ART 108  
*Galileo and Critical Thinking* COLL, SCI, H CON, H RIGHTS
- WILLIAM ZEIGER** ..... STEV 3072  
*Freedom of Imagination: Stories and Critical Thinking* MUL-CULT, LANG, COLL, MID/HIGH
- VINCENT RYAN RUGGIERO** ..... DAR 112  
*Who's to Say What's Right and Wrong?* G, H CON
- ELISA DE LA ROCHE** ..... IVES 35  
*Drama, Critical Thinking, and Social Issues* DRAMA, H CON, SOC STUD, G
- JACKIE A. GIULIANO** ..... STEV 3049  
*Critical Textbook Selection — A Fundamental Prerequisite for Teaching: Watching Out for Subtle Gender Bias* FEM, COLL, TEST, SOCIOL
- OGDEN MORSE** ..... IVES 78  
*Literature and Problem Solving: The Integration of Thinking Skills and Subject Matter* MID/HIGH, COLL
- YUN JA LASSEK** ..... DAR 139  
*Teaching Environmental Ethics Through Various Critical Thinking Methods* ENV
- WENDY OXMAN** ..... DAR 122  
*Case Studies in Teaching for Critical Thinking* MUL-CULT, G
- WILLIAM TAYLOR** ..... DAR 137  
*Strategies for Teaching Critical Reading* COLL, MID/HIGH, SOC STUD
- MEENAKSHI (MEENA) DALAL** ..... STEV 3046  
*Economic Reality and Human Conflict* ECON, CONF THEME
- PETER FACIONE, JOANNE GAINEN** ..... NICH 173  
*Are New College Students Disposed to Think?* LANG, COLL, TEST

- ROBERT C. PINTO** ..... STEV 3040  
*Can Learning Logic Help Students Improve Their Thinking?* ADV, PSYCH, COLL
- CARROL STEEDMAN** ..... STEV 3026  
*Critical Thinking at the Work Site, in Developmental English Classes, and in Continuing Professional Education: Argument and the Case Study* COLL, LANG, BUS, H CON
- RICHARD J. MCCALLUM** ..... STEV 3036  
*Using Writing as a Method of Encouraging Critical Thinking* COLL, MID/HIGH, LANG
- WILLIAM PENDLETON** ..... STEV 2065  
*Instructional Design for the 21<sup>st</sup> Century: High School Classrooms That Nourish Critical Thinking for All Students* HIGH, MUL-CULT
- RENATE OTTERBACH, EVA HONSA-HOGG** ..... IVES 45  
*Cooperative Learning and Critical Thinking: A Winning Combination* MID/HIGH, ADV, SOC STUD
- RENEE RUDERMAN** ..... STEV 3030  
*Reading the Spaces Between Words: A Critical Inquiry into Toni Morrison's Use of Language in The Bluest Eye* FEM, LANG, COLL
- JUDITH SCHWARTZ** ..... STEV 3077  
*Developing Reflective Practitioners: How Teacher Research Leads to Improved Critical Thinking and Classroom Instruction* K-12, STAFF DEV
- JEANNE BECIJOS** ..... NICH 166  
*In the MUD: A Critical Reading Strategy* HIGH, LANG, MEDIA, SOC STUD
- KIM SKOOG, DOMININA K. CALLAGHAN** ..... STEV 2083  
*Ways to Encourage Critical Thinking in Medical Ethics Classes* HEALTH, ETHICS

**5:30 PM – 8:00 PM**

**BANQUET** ..... DINING COMMONS

**8:00 PM – 9:15 PM**

**NATIONAL COUNCIL MEETING** ..... SUMPR

**8:00 PM – 11:00 PM**

**EVENING SOCIAL** ..... DINING COMMONS

**TUESDAY**

**8:45 AM - 10:15 AM**

- RICHARD W. PAUL** ..... **IVES (WARREN)**  
*How to Design Assignments and Activities (So That Students Learn How to Assess Their Own Performances)* G, TEST, BEG
- VINCENT RYAN RUGGIERO** ..... **STEV 1002**  
*Teaching Thinking Across the Curriculum* G
- JOHN CHAFFEE** ..... **IVES 119**  
*Critical and Creative Problem Solving* G
- GERALD NOSICH** ..... **SUMPR**  
*Some Nuts and Bolts of Critical Thinking: Interpreting What People Say* G, BEG
- RALPH H. JOHNSON** ..... **STEV 3008**  
*Argumentation: A Pragmatic Approach* THEOR
- NOREEN C. FACIONE, CAROL A. SANCHEZ** ..... **STEV 2049**  
*Critical Thinking Research and the Health Professions* HEALTH, PSYCH, TEST, ADV
- JACKIE A. GIULIANO** ..... **ART 108**  
*Gender and Science: The Impact of the Absence of a Feminist Voice — Putting the Human Spirit Back into Science Education* FEM, MATH/SCI, SOC/STUD, ENV
- WILLIA L. NWA** ..... **STEV 3072**  
*Cultural Diversity: What Should Educators Do About It?* MUL-CULT, H RIGHTS, COLL, MID/HIGH
- JOHN EDWARDS, TIMOTHY MELCHIOR** ..... **IVES 35**  
*The Researcher and the Practitioner* MID/HIGH, STAFF DEV, BUS, G
- CAROL M. ELLIS** ..... **STEV 3049**  
*Critical Thinking as Controversy* FEM, LANG, COLL, MUL-CULT
- JOHN ENRIGHT** ..... **DAR 139**  
*Economology: Managing the Earth (and Us) with Wisdom* ENV, ECON, PSYCH, CONF THEME
- PETER FACIONE** ..... **IVES 78**  
*Teaching Critical Thinking Using TV Drama* LANG, COLL, MEDIA, MID/HIGH
- OBED NORMAN** ..... **DAR 122**  
*Critical Thinking and the Education of Science Teachers: Building a Community of Meaning Makers* SCI, MUL-CULT, G
- JOANN CARTER-WELLS, CINDY L. LYNCH** ..... **DAR 137**  
*Adult Development and the Assessment of Critical Thinking* TEST, PSYCH, COLL

- GAIL A. KENDALL, DIANE WHEELER** ..... **NICH 173**  
*Project Think: An Integrated Language Arts Approach to Critical Thinking* LANG, MID/HIGH, H RIGHTS, ENV
- ROBIN SKEWES-COX, BENNET SKEWES-COX** ..... **STEV 3046**  
*How to Think About War and Peace, Part I* H CON, PEACE, G
- BURTON VOORHEES** ..... **STEV 3040**  
*Moral Orientation and Critical Thinking* ADV, COLL, MATH/SCI
- JENNIFER WILD** ..... **STEV 3026**  
*Action Science: The Skills Needed to Critically Reflect on Practice* BUS, H CON, PSYCH, ADV
- HARRY GAVENTA** ..... **STEV 3036**  
*Reconstruction of Classroom Climates: Operations in Skepticism and Scrutiny* COLL, MID/HIGH, SOC STUD
- JANIS L. SILVERMAN** ..... **STEV 2065**  
*Economics for Kids* ECON, K-12, SOC STUD
- LYNN J. LOFTHOUSE, PH.D** ..... **IVES 45**  
*A Prescription for Building Critical Thinking Skills Through Persuasive Message Construction* G
- RICHARD KELDER** ..... **STEV 3028**  
*Teaching Critical Thinking and Argumentation from Global Perspectives* ADV, H CON, H RIGHTS, COLL
- KAY BLAIR** ..... **STEV 3030**  
*Improving Critical Thinking Through Supplemental Instruction* COLL
- ANNE I. LEWIS, KEVIN FELDMAN** ..... **NICH 304**  
*Activating and Organizing Thinking: Scaffolded Instructional Strategies for the Heterogeneous Classroom* K-12, SPECIAL ED, LANG
- SHANNAH PARNELL** ..... **NICH 166**  
*Re-Reading Hawthorne's 'A': Ideologies and Developing Critical Awareness in the Classroom* LANG, COLL, MID/HIGH
- DOUGLAS B. ARETZ** ..... **STEV 2083**  
*School-to-Work Transition (Tech Prep) in Metro-Milwaukee* G, BUS
- JANE WILLEN** ..... **IVES 76**  
*Critical Thinking: The Magic Wand That Integrates Curriculum (Video, in studio)* ELEM, MID, STAFF DEV

**10:30 AM - 12:00 PM**

- RICHARD W. PAUL** ..... **IVES (WARREN)**  
*Pseudo-Critical Thinking: Beware! (How to Distinguish Authentic and Substantial Approaches to Critical Thinking from the Slick Counterfeits Now Sweeping the Educational Marketplace)* G, TEST, BEG
- WILLIAM A. DORMAN** ..... **STEV 1002**  
*Perceptions, Misperceptions, and Damned Nonsense: The News Media and World Affairs* MEDIA, POL, COLL, MID/HIGH

**TUESDAY**

**10:30 AM – 12:00 PM**

Continued

- DAN WEIL** ..... **SUMPR**  
*Critical Thinking and Elementary School Mathematics* ELEM
- JOHN BARELL** ..... **IVES 119**  
*Crew Members on Santa Maria: Problem-Based Learning, Inquiry, and the Pursuit of Deep Understanding* G, SOC STUD
- MARK WEINSTEIN** ..... **CAR 68**  
*How to Get from Ought to Is: Post-Modern Epistemology and Social Justice* H RIGHTS, THEORY
- T. EDWARD DAMER** ..... **STEV 3008**  
*A Code of Conduct for a Critically Thinking Citizenry: A Proposed Method for Effective Resolution of Conflicts* G, H CON
- MARYBETH YOUNG** ..... **STEV 2049**  
*Developing Critical Thinking Abilities as a Basis for Nursing Practice* HEALTH, COLL
- OGDEN MORSE** ..... **ART 108**  
*Making Meaning in the Classroom: Skills, Perspectives, and Subject Matter* MID/HIGH, COLL, LANG
- CONSTANCE DEVEREAUX, WILLIAM G. MUNN** ..... **DAR 112**  
*Is There a Problem Here? A Policy Analysis of Critical Thinking in California Community Colleges* COMM COLL, STAFF DEV, TEST
- K. HELMUT REICH, SANDRA PARKS** ..... **STEV 3049**  
*Spirituality and Critical Thinking* PSYCH, MUL-CULT
- PETER DOW ADAMS** ..... **IVES 78**  
*Critical Thinking in the Core Classroom* MUL-CULT, COLL, HUMANITIES, ART
- DON WAXMAN, J. THEODORE STANLEY,**  
**JOHN ZENTNER** ..... **DAR 139**  
*Restoration of the Natural Landscape: Issues and Examples* ENV
- JUDY FISHEL** ..... **DAR 122**  
*Benchmarks in Critical Thinking: What Skills at What Age? The Comet Is Coming!* SCI, MATH, K-12
- JEAN ANN FOLEY** ..... **NICH 173**  
*Teacher Ethos: A Veil of Perception That Precludes Critical Thinking*  
 STAFF DEV, ELEM, MATH/SCI
- BENNET SKEWES-COX, ROBIN SKEWES-COX** ..... **STEV 3046**  
*How to Think About War and Peace, Part II* H CON, PEACE, G
- RUBY TROW, MARILYNN FILBECK** ..... **DAR 137**  
*Involving Students in Assessing Academic Performance* TEST, G

- THOMAS SECCO** ..... **STEV 3040**  
*The Formation of Knowledge and the Mission of Intelligence* ADV
- DEBRA M. MURPHY, FRAN TOOMEY** ..... **STEV 3026**  
*Learnership/Leadership Model: "Traveling into the 21<sup>st</sup> Century"*  
 BUS, COLL
- LARRY LITECKY** ..... **STEV 2065**  
*Active Learning, Critical Thinking, and Global Economics* COLL,  
 ECON, TEST
- SEBASTIAN J. VASTA, MIRIAM K. MLYNARSKI** ..... **NICH 204**  
*Information Access and Critical Thinking: Managing the Information Explosion* G, LIBRARY SCIENCE
- M. STAR MAHARA, S. DAWN PATTERSON** ..... **STEV 3028**  
*Writing to Learn: The Use of Journals to Teach and Evaluate Thinking* COLL, TEST, HEALTH
- BARBARA J. HITCHKO, DAN BURRITT** ..... **IVES 45**  
*Teaching for the Future and Preparing Students for the Educational Demands of the 21<sup>st</sup> Century: Problems, Strategies, and Solutions*  
 K-12
- THOMAS J. SCHEFF** ..... **STEV 3030**  
*Alienation in Families and Classrooms: Repairing the Bond* ADV, H  
 CON, SOCIOL, PSYCH
- JOHN C. S. KIM** ..... **STEV 3077**  
*Creative Critical Approaches to Educational Reform* COLL, MID/HIGH,  
 MUL-CULT, LANG
- BILL GRAVES** ..... **NICH 166**  
*The Reader, the Participant, the Social Order, and the Subversion of Critical Thinking: Teaching Shirley Jackson's "The Lottery" for Real*  
 PSYCH, PEACE, LANG, H CON
- ROBERT ESFORMES** ..... **STEV 2083**  
*Critical Thinking Journals and Newsletters* MEDIA, LANG, COLL
- YEHUDI O. WEBSTER** ..... **IVES 76**  
*On Becoming a (Better?) Critical Thinking Instructor: The Elements of Thought* G, VIDEO
- JEFFREY REED, SCOTT SCHOEPP** ..... **STEV 1040**  
*Illustrations and the Information Age: Using Visuals to Stimulate Critical Thinking* COMPUTER, MID, SCI, SOC STUD

**12:00 PM – 1:30 PM OR 1:45 PM – 3:00 PM**

- LUNCH** ..... **DINING COMMONS**  
*Dorm residents between 11:30 – 1:30 only: Residence Dining Hall*

**TUESDAY**

**12:15 PM – 1:45 PM**

- M. NEIL BROWNE** ..... ART 108  
*Tensions Between Democracy and Critical Thinking: Implications for Our Teaching* SOC STUD, MID/HIGH, COLL
- CYNTHIA A. BARNES** ..... IVES 35  
*Developing Teachers: "When the Student Is Ready"* G
- DAVID SMOCK** ..... DAR 139  
*Thinking Critically About Nature: Using Critical Theory* ENV, SOCIOL, SOC STUD
- NORMAN J. UNRAU** ..... IVES 78  
*Critical Thinking in the Narrative Mode: The Force of Stories* LANG, SOC STUD, G
- JAMES HENRY QUINA** ..... NICH 173  
*Teaching Conflict Resolution Through Metaphor* LANG, H CON, H RIGHTS, SOC STUD
- PAUL J. BAKER** ..... STEV 3036  
*Critical Thinking in Social Science and Social Studies: Authentic Work and Authentic Assessment* HIGH, SOC STUD, SOCIOL, TEST
- JONAH RASKIN** ..... NICH 204  
*Abbie Hoffman: Critical Thinker?* MEDIA, POL, SOC STUD, LANG
- LAUREN COODLEY** ..... STEV 3028  
*Psychology as a Critical Thinking Requirement: How to Do it* PSYCH, COLL
- NORMAN J. BETZ** ..... STEV 3030  
*Classroom Materials and Methods for a Critical Thinking or Writing Course* COLL, LANG, MEDIA
- JEAN ROBB, HILARY LETTS** ..... STEV 2083  
*Turning Critical Thinking into an Adventure for All* G

**1:30 PM – 3:00 PM**

- MATTHEW LIPMAN** ..... IVES 119  
*Alternatives in Narrative Philosophy* K-12
- SUSAN HALES** ..... SUMPR  
*Uncovering the Connections Among Self-Esteem, Critical Thinking, Moral Behavior, and Educational Achievement, Part I* K-12, PSYCH
- LES GOTTESMAN** ..... CAR 68  
*Toon Logic* G
- VINCENT RYAN RUGGIERO** ..... STEV 3008  
*Critical Thinking and Total Quality Management* BUS, G, STAFF DEV

- KIM SKOOG** ..... STEV 3072  
*A Cross-Cultural Study of the Interplay Between Reason, Revelation, and Realization* MUL-CULT
- JUDITH COLLISON** ..... STEV 3049  
*Multiple Perspectives in Curriculum Development for Teacher Education* ELEM, MUL-CULT
- HARRIET CHAMBERLAIN** ..... STEV 3046  
*Critical Thinking: Catalyst for "Fairminded" Change* H CON, PSYCH, BUS
- JIM POLLARD** ..... DAR 137  
*Learners Can Achieve 100% (A Self-Assessment Workshop)* TEST, ADV, BUS, G
- CONNIE MISSIMER** ..... STEV 3040  
*Getting up to Snuff in Theorizing About Critical Thinking* ADV, THEORY, MUL-CULT
- RICHARD L. LAUGHLIN, JANET LAUGHLIN** ..... STEV 3036  
*An Educational Paradigm Shift* G
- MANUEL MENA** ..... STEV 3026  
*Bridging Academia and Business: A Reality-Based Curriculum* BUS
- JARED HAYNES** ..... STEV 2065  
*Cultivating Critical Thinking in Classroom Discussions* COLL
- LARRY TOMLINSON** ..... IVES 45  
*Critical Thinking and Cultural Bashing* POL, SOC STUD, MEDIA
- HELEN E. R. DITZHAZY** ..... STEV 3077  
*Who Eventually Pays?* MID/HIGH, PSYCH, ECON
- DAN WEIL** ..... IVES 76  
*Constructing a Critical Multi-Cultural Curriculum* ELEM, VIDEO
- GEORGE COLLISON** ..... STEV 1040  
*Project BioQUEST: New Tools for Critical Thinking and Constructionist Pedagogy in Life Science Education* G, SCI, ENV, COMPUTER ASST ED

**3:15 PM – 4:45 PM**

- MARK WEINSTEIN** ..... STEV 1002  
*Critical Thinking Across the College Curriculum: What Faculty Wants and Needs* STAFF DEV, COLL
- SUSAN HALES** ..... SUMPR  
*Uncovering the Connections Among Self-Esteem, Critical Thinking, Moral Behavior, and Educational Achievement, Part II* K-12, PSYCH
- GERALD NOSICH** ..... IVES 119  
*Learning to Think Critically Within a Discipline* G, BEG

**TUESDAY**

**3:15 PM - 4:45 PM**

Continued

- SANDRA PARKS** ..... CAR 68  
*Using Graphic Organizers to Improve Thinking and Learning* G
- RICHARD POPE** ..... STEV 3008  
*Elementary School Language Arts and Critical Thinking — The Process for Generating a Nation of Active Learners* ELEM, LANG
- TERRY VALIGA** ..... STEV 2049  
*The Effect of Planned Teaching and Evaluation Strategies on Nursing Students' Cognitive Growth and Critical Thinking: Pursuing Reform Within Nursing Education* HEALTH, NURSING
- MARK A. WILCOX** ..... ART 108  
*The Brain: A Model for the Effective Formation and Utilization of Teams* PSYCH, HIGH, BUS
- JUDI HIRSCH** ..... STEV 3072  
*The Dynamic Assessment of Learning Potential: Combining the Theories of Freire and Feuerstein* TEST, MUL-CULT, PSYCH, H RIGHTS
- LISA SMITH, JERALDINE C. DAY** ..... IVES 35  
*U.S. Tobacco in the World Market: A Global Economic and Social Dilemma* HEALTH, ECON, BUS, MEDIA, POL
- HILDA CABANEL-EVANS** ..... STEV 3049  
*Thurrow's Head to Head: An Exercise in Critical Thinking* ECON, ADV, G
- ROBERT MCCONNELL, DANIEL C. ABEL** ..... DAR 139  
*Enhancing Critical Thinking Through Quantification of Population/Environment Issues* ENV, MATH/SCI, G
- JOHN EDWARDS** ..... IVES 78  
*Action Thinking for Change* BUS, STAFF DEV, G
- ARTHUR COHEN** ..... STEV 3046  
*"Become Streetwise!" A Women's Guide to Personal Safety* G, H CON
- DONALD LAZERE** ..... NICH 173  
*Teaching the Political Conflicts in Writing Courses* LANG, SOC STUD, POL, MEDIA
- DONALD HATCHER** ..... DAR 137  
*Grading the Ennis-Weir Critical Thinking Essay Test* TEST, G
- WENDY OXMAN** ..... STEV 3026  
*The THORP Game* MUL-CULT, G
- PRISCILLA AGNEW** ..... STEV 2065  
*Sex, Death, Advertising, and Children in Our Changing World* MEDIA

- ADOLFO SANCHEZ, LUZ E. LOPEZ** ..... NICH 204  
*Making Connections* K-12
- VIRGINIA B. EPSTEIN** ..... IVES 45  
*Critical Reading and Popular Culture: Women as Heroes in Film* FEM, K-12, H CON
- MICHAEL MCLAIN-MIDKIFF** ..... STEV 3030  
*Levels of Thoughtfulness in Fifth Grade History and Social Science Lessons: An Examination of Teacher Practice* K-12, SOC STUD, TEST
- DIXON WRAGG** ..... STEV 3077  
*Critical Thinking and Social Responsibility: From the Classroom to the World* H RIGHTS, SOCIOL, POL, H CON
- PATRICIA B. CHEYNE** ..... NICH 166  
*Global Awareness Through Aesthetic Education* MUL-CULT, K-12, SOC STUD, ART
- PENNY HEASLIP, RICHARD W. PAUL** ..... IVES 76  
*Critical Thinking and Intuition in Nursing Practice* HEALTH, COLL, CURRICULUM, POL, VIDEO

**7:00 PM - 11:00 PM**

**EVENING SOCIAL** ..... DINING COMMONS

**WEDNESDAY**

**8:45 AM - 10:15 AM**

- RICHARD W. PAUL** ..... STEV 1002  
*Staff Development: If It Is Not Long-Term and Comprehensive, It Won't Work!* G, STAFF DEV, BEG
- GERALD NOSICH** ..... IVES 119  
*Some Nuts and Bolts of Critical Thinking: Identifying People's Assumptions* G, BEG
- M. NEIL BROWNE, STUART M. KEELEY** ..... ART 108  
*Getting Started as a Teacher of Critical Thinking: Planning Curriculum Materials, Assignments, and Evaluation* COLL
- R. SCOTT SMITH** ..... STEV 3072  
*A Framework for Applying Critical Thinking to Inter-Cultural Encounters* MUL-CULT, H CON
- KATY DAWSON** ..... IVES 35  
*Five, Six, and Seven Year Olds: Powerful Thinkers Right from the Start!* ELEM, H CON, LANG, MATH, BI-LINGUAL

**WEDNESDAY**

**8:45 AM – 10:15 AM**

Continued

- LINDA NOWELL** ..... STEV 3049  
*Critical Talk: Developing Critical Thinking and Critical Consciousness* K-12, LANG, ECON
- RUTH M. LORING** ..... IVES 78  
*Critical Thinking and Professional Development: An Approach Consistent with "Communitarian Capitalism"* TEST, STAFF DEV
- WILLIAM A. HAYES** ..... DAR 122  
*Designing Effective Thinking Activities in Science: Principles, Theories, Attitudes, Habits, and Skills* SCI, MID/HIGH, COLL
- KIRK G. DADDOW** ..... NICH 173  
*Teaching Critical Thinking in the Advanced Writing Course* LANG, MID/HIGH, SOC STUD
- MARGARET N. TURNER, CLAUDETTE FRANKLIN, JUDITH B. SMITH** ..... DAR 137  
*Restructuring and Reform of Teacher Education: A Liberal Arts College Perspective* COLL, EDUC
- RENÉ TRUJILLO, JR.** ..... STEV 3046  
*The Debate Over Human Rights and Social Justice After the Spanish Discovery of the "New" World* MUL-CULT, POL, H RIGHTS, LANG
- CHARLES V. BLATZ** ..... STEV 3040  
*Critical Thinking and the Sovereignty of Epistemic Communities* ADV, BUS, ECON, POL
- PETER HALL** ..... STEV 3036  
*Traps and Tools* G, BUS
- BRUCE BORAAS** ..... STEV 3026  
*Education and Training for a Global Perspective — One Collective View from Industry* BUS, G
- MARK R. STONER, LINDA MARTIN** ..... STEV 2083  
*Teaching as Therapy: Conveying Thinkers to Holonomy* ADV, G, PSYCH

**10:30 AM – 12:00 PM**

- RICHARD W. PAUL** ..... CAR 68  
*"Outcome-Based," "Cooperative," "Meaning-Centered," "Authentic," "Re-Structured," "Constructed," "Performance-Driven," "Multi-Cultural," "Self-Esteem," "Thinking," and "Learning" — Come Find Out What Is Right and Wrong with the Jargon of the Day* G, TEST, BEG
- SALLIE L. WILSON** ..... STEV 3008  
*Year 2000: Creating a Culture of Thinkers* G, ELEM, MATH

- PAUL J. BAKER, JUDITH LAWSON** ..... STEV 2049  
*Developing Thinking Programs in Three K-8 Schools: Lessons from the Field* K-12
- MARK A. WILCOX** ..... ART 108  
*Did You Ever Have to Make Up Your Mind? Using Whole-Brain Thinking to Make Good Decisions* BUS, HIGH, PSYCH
- SUE Y. LUCKEY** ..... STEV 3072  
*Active Learning Strategies That Enhance Critical Thinking* COLL, TEST, ACTIVE LEARNING
- LEROI DANIELS, SHARON BAILIN, ROLAND CASE, JERROLD COOMBS** ..... IVES 35  
*Operationalizing Critical Thinking: A Curriculum, Instruction, and Assessment Model (Project OPCRIT)* ADV
- HILDA CABANEL-EVANS** ..... STEV 3049  
*Classification Skills: Essential Yet Over-Looked* G
- DR. NICKI HOYT** ..... IVES 78  
*Critical Thinking Teaching Strategies in Nursing and Health Sciences* HEALTH, MUL-CULT, H RIGHTS, COLL
- LOWELL COOPER** ..... IVES 79  
*Using Critical Thought as a Way Out of Negative Relationship Cycles* PSYCH, H CON
- ANNIE K. KOSHI** ..... NICH 173  
*Holistic Grammar Through Socratic Questioning* LANG
- CINDY L. LYNCH** ..... STEV 3026  
*Reflective Judgment in the Business Classroom* COLL, BUS, STAFF DEV
- DAVID FITZGERALD** ..... STEV 3030  
*Integration of Reflective Thinking into the Curriculum* COLL, PSYCH, BUS, TEST

**12:00 PM – 1:30 PM**

- LUNCH** ..... DINING COMMONS  
*Dorm residents between 11:30 – 1:30 only: Residence Dining Hall*

**1:30 PM – 3:00 PM**

- WRAP-UP** ..... IVES (WARREN)



**SPECIAL INTEREST GROUPS**

SUNDAY, 7:00 PM

**I**N ORDER TO facilitate networking between colleagues with similar interests, special interest group meetings will be combined with the Sunday night social held in the Commons. Tables will be designated for various interest groups to meet and organize themselves. The nature and extent of the organization is dependent on the will of the members present. We suggest as a minimum that each group develop a sign-up list with addresses and phone numbers. To facilitate this, a sign-up form will be made available to each group and collected at the end of the evening. Free copies can be requested at the Student Union Copy Center (downstairs) beginning Monday afternoon.

Below is a list of the interest groups which were chosen based on information obtained from your registration forms. Additional groups may be added and impromptu groups will, of course, be welcomed.

**CRITICAL THINKING IN THE DISCIPLINES**

Critical Thinking in the Arts  
 Critical Thinking in Business and Management  
 Critical Thinking and Economics  
 Critical Thinking and Education  
 Critical Thinking and Gifted Education  
 Critical Thinking and Informal Logic  
 Critical Thinking and Language Arts

Critical Thinking and Mathematics  
 Critical Thinking in Nursing  
 Critical Thinking and Philosophy  
 Critical Thinking and Psychology  
 Critical Thinking and the Sciences  
 Critical Thinking and Social Studies and History

**CRITICAL THINKING PEDAGOGY**

Critical Thinking and Feminism  
 Critical and Multi-Cultural Thinking  
 Critical Thinking Staff Development

**CRITICAL THINKING AND EDUCATIONAL LEVELS**

Critical Thinking and Elementary School  
 Critical Thinking and Middle School  
 Critical Thinking and High School  
 Critical Thinking and the Community College  
 Critical Thinking and the University

## SELECTED SESSIONS

### LISTED BY AUDIENCE CODE

#### ADVANCED

- DARLENE BOYD** ..... MONDAY 8:45; IVES 45  
*Teaching: A Conceptual Analysis* G, ADV
- ROBERT C. PINTO** ..... MONDAY 3:15; STEV 3040  
*Can Learning Logic Help Students Improve Their Thinking?* ADV, PSYCH, COLL
- BURTON VOORHEES** ..... TUESDAY 8:45; STEV 3040  
*Moral Orientation and Critical Thinking* ADV, COLL, MATH/SCI

#### BEGINNERS

- GERALD NOSICH** ..... SUNDAY 1:30; IVES (WARREN)  
*An Introduction to Critical Thinking: What Is It? Why Should I Teach for It? How Can I Teach for It?* G, BEG
- LORENZ BOEHM** ..... SUNDAY 1:30; STEV 1002  
*Natural Allies: Teaching, Learning, Writing, and Critical Thinking, Part I* COLL, TEST, MID/HIGH
- CONNIE DE CAPITE** ..... SUNDAY 1:30; STEV 3072  
*Critical Thinking for All Students* LANG, SOC STUD, SCI
- LORENZ BOEHM** ..... SUNDAY 3:15; STEV 1002  
*Natural Allies: Teaching, Learning, Writing, and Critical Thinking, Part II* COLL, TEST, MID/HIGH
- JUDY R. DOWNS** ..... SUNDAY 3:15; ART 108  
*A Mini-Workshop in Critical and Creative Thinking* K-12, COLL, LANG
- GLEN HARPER** ..... SUNDAY 3:15; STEV 3028  
*Come Think With Me: Assumptions, Backing Up to the Start* H CON, K-12, BEG

## BEGINNERS

Continued

- EDWARD D'ANGELO** . . . . . MONDAY 8:45; STEV 1002  
*Critical Thinking in Law* COLL, HIGH, H RIGHTS, H CON
- JANE WILLSSEN** . . . . . MONDAY 1:30; CAR 68  
*Teaching High School Students How to Assess Their Own Thinking* HIGH, TEST, BEG
- DENNIS MATTHIES** . . . . . MONDAY 1:30; STEV 3008  
*Plowing and Grinding vs. Working Reflectively* G, BEG
- LORENZ BOEHM, MARK WEINSTEIN** . MONDAY 3:15; IVES (WARREN)  
*Balancing Acts: Working With Colleagues to Teach Critical Thinking* STAFF DEV, COLL
- RICHARD W. PAUL** . . . . . TUESDAY 8:45; IVES (WARREN)  
*How to Design Assignments and Activities (So That Students Learn How to Assess Their Own Performances)* G, TEST, BEG
- GERALD NOSICH** . . . . . TUESDAY 8:45; SUMPR  
*Some Nuts and Bolts of Critical Thinking: Interpreting What People Say* G, BEG
- RICHARD W. PAUL** . . . . . TUESDAY 10:30; IVES (WARREN)  
*Pseudo-Critical Thinking: Beware! (How to Distinguish Authentic and Substantial Approaches to Critical Thinking from the Slick Counterfeits Now Sweeping the Educational Marketplace)* G, TEST, BEG
- GERALD NOSICH** . . . . . TUESDAY 3:15; IVES 119  
*Learning to Think Critically Within a Discipline* G, BEG
- JOHN EDWARDS** . . . . . TUESDAY 3:15; IVES 78  
*Action Thinking for Change* BUS, STAFF DEV, G
- RICHARD W. PAUL** . . . . . WEDNESDAY 8:45; STEV 1002  
*Staff Development: If It Is Not Long-Term and Comprehensive, It Won't Work!* G, STAFF DEV, BEG
- GERALD NOSICH** . . . . . WEDNESDAY 8:45; IVES 119  
*Some Nuts and Bolts of Critical Thinking: Identifying People's Assumptions* G, BEG
- RICHARD W. PAUL** . . . . . WEDNESDAY 10:30; CAR 68  
*"Outcome-Based," "Cooperative," "Meaning-Centered," "Authentic," "Re-Structured," "Constructed," "Performance-Driven," "Multi-Cultural," "Self-Esteem," "Thinking," and "Learning" — Come Find Out What Is Right and Wrong with the Jargon of the Day* G, TEST, BEG

## BUSINESS

- RICHARD S. HALL** . . . . . SUNDAY 12:15; STEV 3026  
*The Impact of Critical Thinking on Corporate Training* BUS
- JIM POLLARD** . . . . . MONDAY 8:45; STEV 3008  
*Who Is the Boss? (An Empowerment Workshop)* COLL, BUS, H CON
- JENNIFER WILD** . . . . . TUESDAY 8:45; STEV 3026  
*Action Science: The Skills Needed to Critically Reflect on Practice* BUS, H CON, PSYCH, ADV
- DOUGLAS B. ARETZ** . . . . . TUESDAY 8:45; STEV 2083  
*School-to-Work Transition (Tech Prep) in Metro-Milwaukee* G, BUS
- DEBRA M. MURPHY, FRAN TOOMEY** . . . . TUESDAY 10:30; STEV 3026  
*Learnership/Leadership Model: "Traveling into the 21<sup>st</sup> Century"* BUS, COLL
- VINCENT RYAN RUGGIERO** . . . . . TUESDAY 1:30; STEV 3008  
*Critical Thinking and Total Quality Management* BUS, G, STAFF DEV
- MANUEL MENA** . . . . . TUESDAY 1:30; STEV 3026  
*Bridging Academia and Business: A Reality-Based Curriculum* BUS
- BRUCE BORAAS** . . . . . WEDNESDAY 8:45; STEV 3026  
*Education and Training for a Global Perspective — One Collective View from Industry* BUS, G

## COLLEGE

- LEAH SHELEDA** . . . . . SUNDAY 1:30; DAR 137  
*Does Logic Teach Critical Thinking?* COLL, TEST, LANG, ADV
- JAMES P. MARSHALL** . . . . . SUNDAY 3:15; IVES 78  
*Practicing Democracy in the Classroom Through the Application of Critical Pedagogy* COLL, H CON, MID/HIGH, SOCIOL
- FRAN TOOMEY** . . . . . SUNDAY 3:15; STEV 3036  
*Community Centered Learning: A Model for Creating a Thinking Community* COLL, PSYCH, SOCIOL, HIGH
- DONALD LAZERE** . . . . . MONDAY 3:15; STEV 2049  
*Literature for Critical Thinking* COLL, MID/HIGH
- JACKIE A. GIULIANO** . . . . . MONDAY 3:15; STEV 3049  
*Critical Textbook Selection — A Fundamental Prerequisite for Teaching: Watching Out for Subtle Gender Bias* FEM, COLL, TEST, SOCIOL

## COLLEGE

Continued

**CONSTANCE DEVEREAUX,  
WILLIAM G. MUNN** . . . . . TUESDAY 10:30; DAR 112  
*Is There a Problem Here? A Policy Analysis of Critical  
Thinking in California Community Colleges* COMM COLL,  
STAFF DEV, TEST

## COMPUTER ASSISTED

**GEORGE COLLISON** . . . . . SUNDAY 3:15; STEV 1040  
*Visiting the Rainforest Via Computer Simulation and  
Linking up for Awareness of Global Problems* MID/HIGH,  
ENV, COMPUTER ASST ED

**ERNEST ROSENBERG** . . . . . MONDAY 10:30; STEV 1040  
*What Are the Most Relevant Science and Social Science  
Curricula for the Future?* COMPUTER ASST ED, ENV, ECON, COLL,  
HIGH

**TED LINDEN** . . . . . MONDAY 12:15; STEV 2083  
*Toward a New Generation of Educational Software to  
Teach Critical Thinking* COMPUTER, MID/HIGH

**JEFFREY REED, SCOTT SCHOEPP** . . . . . TUESDAY 10:30; STEV 1040  
*Illustrations and the Information Age: Using Visuals to  
Stimulate Critical Thinking* COMPUTER, MID, SCI, SOC STUD

**GEORGE COLLISON** . . . . . TUESDAY 1:30; STEV 1040  
*Project BioQUEST: New Tools for Critical Thinking and  
Constructionist Pedagogy in Life Science Education* G,  
SCI, ENV, COMPUTER ASST ED

## CONFERENCE THEME

**BONNIE BAKER THORNE, ANN JERABEK** . . . . . SUNDAY 1:30; IVES 35  
*Developing Strategies That Use Critical Thinking to Infuse  
a Global Perspective into the Curriculum* K-12, SOC STUD

**MICHAEL FEER** . . . . . SUNDAY 1:30; STEV 3046  
*Decision Making and the World Market-Place* ECON, CONF  
THEME

**ROBERT HEILBRONER, RICHARD W. PAUL** . . . . . SUNDAY 3:15; EPT  
*"The Relentless, Ubiquitous Pressure for Change:" How Do  
We Protect the Public Good* G, CONF THEME

**DENNIS MATTHIES** . . . . . SUNDAY 3:15; IVES 79  
*The New Economy, the New Pedagogy* G

**DONALD HATCHER** . . . . . MONDAY 8:45; DAR 112  
*Thinking Critically About Public Policy Issues* CONF THEME

**JUAN MIGUEL FERNANDEZ-BALBOA** . . . . . MONDAY 8:45; DAR 139  
*Educational Reform for Social Transformation and  
Environmental Renewal* ENV, SOC STUD, CONF THEME

**GEORGE H. HANFORD** . . . . . MONDAY 8:45; STEV 3046  
*How to Save the World: Through Critical Thinking* MUL-  
CULT, CONF THEME

**ROBERT HEILBRONER, RICHARD W. PAUL** . . . . . MONDAY 10:30; EPT  
*Robert Reich's Vision of the New Global Economic  
Realities: Do We Need Workers Who Can Think  
Critically? How Broadly and Well Must Citizens  
Learn to Think?* G, CONF THEME

**HENRY BUSCHER, LIANNE SCHNEIDER** . . . . . MONDAY 10:30; DAR 139  
*Environmental Ethics in the New Global Economy: A  
Critical Thinking Approach for Secondary Students*  
MID/HIGH, ENV, SOCIOLOGICAL, ECON

**THOMAS TOMINAGA** . . . . . MONDAY 10:30; STEV 3026  
*Agenda of the "Middle-Way" Logic of Buddhist Economics  
for Economic Realities and their Implications* ECON, CONF  
THEME, MUL-CULT

**ROBERT HEILBRONER, RICHARD W. PAUL** . . . . . MONDAY 3:15; EPT  
*Lester Thurow's Vision of the New Global Economic  
Realities: Can We Develop a First-Rate Economy and  
First-Rate Standard of Living, if Citizens Learn Merely  
Work-Related Skills and Cannot Think Critically Within  
Alternative Points of View?* G, CONF THEME

**JOHN R. FEARE, SANDRA PARKS,  
ROBERT SWARTZ** . . . . . MONDAY 3:15; STEV 3008  
*Critical Thinking and Global Economics Within a  
Theological Dimension* CONF THEME

**MEENAKSHI DALAL** . . . . . MONDAY 3:15; STEV 3046  
*Economic Reality and Human Conflict* ECON, CONF THEME

**LISA SMITH, JERALDINE C. DAY** . . . . . TUESDAY 3:15; IVES 35  
*U.S. Tobacco in the World Market: A Global Economic  
and Social Dilemma* HEALTH, ECON, BUS, MEDIA, POL

## ECONOMICS

**MICHAEL FEER** . . . . . SUNDAY 1:30; STEV 3046  
*Decision Making and the World Market-Place* ECON, CONF  
THEME

**CHARLES V. BLATZ** . . . . . MONDAY 8:45; STEV 3026  
*Critical Thinking and the Sovereignty of Political and  
Economic Communities* ADV, BUS, ECON, POL

## ECONOMICS

Continued

- THOMAS TOMINAGA** . . . . . MONDAY 10:30; STEV 3026  
*Agenda of the "Middle-Way" Logic of Buddhist Economics  
 for Economic Realities and their Implications* ECON, CONF  
 THEME, MUL-CULT
- PETER F. BELL** . . . . . MONDAY 12:15; STEV 3026  
*Integrating Race and Gender into the Economics  
 Curriculum: Theory and Classroom Practice* ECON, MUL-  
 CULT, FEM, COLL
- JOHN ENRIGHT** . . . . . TUESDAY 8:45; DAR 139  
*Economology: Managing the Earth (and Us) with Wisdom*  
 ENV, ECON, PSYCH
- HILDA CABANEL-EVANS** . . . . . TUESDAY 3:15; STEV 3049  
*Thurow's Head to Head: An Exercise in Critical Thinking*  
 ECON, ADV, G

## ELEMENTARY

- RICHARD POPE** . . . . . SUNDAY 12:15; STEV 3008  
*The Debating Process Instills Critical Thinking in Your  
 Elementary School Students and Makes You Thinner,  
 Sexier, and Attractive to Movie Stars!* ELEM, BEG
- JUDITH COLLISON** . . . . . MONDAY 8:45; DAR 122  
*Overcoming Math Anxiety of Elementary School Teachers*  
 MATH, ELEM, TEST
- DAN WEIL** . . . . . MONDAY 10:30; SUMPR  
*Critical Thinking, Critical Writing, and Literature-Based  
 Whole Language Instruction* ELEM
- DAN WEIL** . . . . . MONDAY 3:15; SUMPR  
*Reasoning Within Different Cultural Points of View:  
 Using Language Instruction for Early Childhood Social  
 Studies* ELEM
- JANIS L. SILVERMAN** . . . . . TUESDAY 8:45; STEV 2065  
*Economics for Kids* ECON, K-12, SOC STUD
- DAN WEIL** . . . . . TUESDAY 10:30; SUMPR  
*Critical Thinking and Elementary School Mathematics*  
 ELEM
- JUDITH COLLISON** . . . . . TUESDAY 1:30; STEV 3049  
*Multiple Perspectives in Curriculum Development for  
 Teacher Education* ELEM, MUL-CULT
- DAN WEIL** . . . . . TUESDAY 1:30; IVES 76  
*Constructing a Critical Multi-Cultural Curriculum* ELEM,  
 VIDEO

- RICHARD POPE** . . . . . TUESDAY 3:15; STEV 3008  
*Elementary School Language Arts and Critical Thinking —  
 The Process for Generating a Nation of Active Learners*  
 ELEM, LANG
- KATY DAWSON** . . . . . WEDNESDAY 8:45; IVES 35  
*Five, Six, and Seven Year Olds: Powerful Thinkers Right  
 from the Start!* ELEM, H CON, LANG, MATH, BI-LINGUAL

## ENVIRONMENT

- DENNIS MARTINEZ** . . . . . SUNDAY 1:30; DAR 139  
*Traditional Indigenous Knowledge and Western Science:  
 Cross-Cultural Perspectives on Environmental Knowledge*  
 ENV, MUL-CULT
- GRADY E. WILLIAMS** . . . . . SUNDAY 3:15; DAR 139  
*A Role-Playing Model for Introducing Critical Thinking  
 and Creative Concept Structuring in Environmental Science*  
 ENV, SCI, G
- GEORGE COLLISON** . . . . . SUNDAY 3:15; STEV 1040  
*Visiting the Rainforest Via Computer Simulation and  
 Linking up for Awareness of Global Problems* MID/HIGH,  
 ENV, COMPUTER ASST ED
- JUAN MIGUEL FERNANDEZ-BALBOA** . . . . . MONDAY 8:45; DAR 139  
*Educational Reform for Social Transformation and  
 Environmental Renewal* ENV, SOC STUD, CONF THEME
- HENRY BUSCHER, LIANNE SCHNEIDER** . . . . . MONDAY 10:30; DAR 139  
*Environmental Ethics in the New Global Economy:  
 A Critical Thinking Approach for Secondary Students*  
 MID/HIGH, ENV, SOCIO, ECON
- YUN JA LASSEK** . . . . . MONDAY 3:15; DAR 139  
*Teaching Environmental Ethics Through Various Critical  
 Thinking Methods* ENV
- JOHN ENRIGHT** . . . . . TUESDAY 8:45; DAR 139  
*Economology: Managing the Earth (and Us) with Wisdom*  
 ENV, ECON, PSYCH
- DON WAXMAN, J. THEODORE STANLEY,  
 JOHN ZENTNER** . . . . . TUESDAY 10:30; DAR 139  
*Restoration of the Natural Landscape: Issues and  
 Examples* ENV
- DAVID SMOCK** . . . . . TUESDAY 12:15; DAR 139  
*Thinking Critically About Nature: Using Critical Theory*  
 ENV, SOCIO, SOC STUD
- ROBERT MCCONNELL, DANIEL C. ABEL** . . . . . TUESDAY 3:15; DAR 139  
*Enhancing Critical Thinking Through Quantification of  
 Population/Environment Issues* ENV, MATH/SCI, G

## FEMINIST ISSUES

- JACKIE A. GIULIANO** . . . . . SUNDAY 12:15; ART 108  
*The Introduction of Feminist Philosophy and Spirituality into the Classroom Through Environmental Studies* FEM, ENV, COLL, MATH/SCI
- NOREEN FACIONE, CAROL SANCHEZ, PETER FACIONE** . . . . . MONDAY 8:45; STEV 3036  
*Gender and Critical Thinking — A Look at the Data* FEM, PSYCH, COLL, ADV
- JEANNETTE M. CATSOULIS** . . . . . MONDAY 8:45; STEV 3030  
*Gender Conflict: Images of Women in Advertising* MEDIA, FEM, SOC STUD
- JACKIE A. GIULIANO** . . . . . MONDAY 3:15; STEV 3049  
*Critical Textbook Selection — A Fundamental Prerequisite for Teaching: Watching Out for Subtle Gender Bias* FEM, COLL, TEST, SOCIOL
- RENEE RUDERMAN** . . . . . MONDAY 3:15; STEV 3030  
*Reading the Spaces Between Words: A Critical Inquiry into Toni Morrison's Use of Language in The Bluest Eye* FEM, LANG, COLL
- JACKIE A. GIULIANO** . . . . . TUESDAY 8:45; ART 108  
*Gender and Science: The Impact of the Absence of a Feminist Voice — Putting the Human Spirit Back into Science Education* FEM, MATH/SCI, SOC/STUD, ENV
- CAROL M. ELLIS** . . . . . TUESDAY 8:45; STEV 3049  
*Critical Thinking as Controversy* FEM, LANG, COLL, MUL-CULT
- VIRGINIA B. EPSTEIN** . . . . . TUESDAY 3:15; IVES 45  
*Critical Reading and Popular Culture: Women as Heroes in Film* FEM, K-12, H CON

## HEALTH

- PETER FACIONE, NOREEN FACIONE** . . . . . SUNDAY 12:15; STEV 2049  
*Assuring Critical Thinking in the Professional Nurse: A Response to NLN Criterion 20* HEALTH, TEST, COLL
- MACGREGOR EDDY** . . . . . SUNDAY 3:15; STEV 2049  
*From Novice to Expert in the Era of the Information Overload* HEALTH, COLL
- PENNY HEASLIP** . . . . . MONDAY 10:30; STEV 2049  
*Shifting Paradigms in Education and Health Care Reform: A Nursing Perspective* HEALTH, COLL, CURRICULUM, POL

- LYNDA BROWN, SANDRA JONES** . . . . . MONDAY 12:15; STEV 2049  
*Critical Thinking: A Super-Ordinate Concept for Teaching Nursing* HEALTH, TEST
- NOREEN FACIONE, CAROL SANCHEZ** . . . . . TUESDAY 8:45; STEV 2049  
*Critical Thinking Research and the Health Professions* HEALTH, PSYCH, TEST, ADV
- MARYBETH YOUNG** . . . . . TUESDAY 10:30; STEV 2049  
*Developing Critical Thinking Abilities as a Basis for Nursing Practice* HEALTH, COLL
- TERRY VALIGA** . . . . . TUESDAY 3:15; STEV 2049  
*The Effect of Planned Teaching and Evaluation Strategies on Nursing Students' Cognitive Growth and Critical Thinking: Pursuing Reform Within Nursing Education* HEALTH, NURSING
- PENNY HEASLIP, RICHARD W. PAUL** . . . . . TUESDAY 3:15; IVES 76  
*Critical Thinking and Intuition in Nursing Practice* HEALTH, COLL, CURRICULUM, POL, VIDEO
- NICKI HOYT** . . . . . WEDNESDAY 10:30; IVES 78  
*Critical Thinking Teaching Strategies in Nursing and Health Sciences* HEALTH, MUL-CULT, H RIGHTS, COLL

## HUMAN CONFLICTS

- JIM POLLARD** . . . . . MONDAY 8:45; STEV 3008  
*Who Is the Boss? (An Empowerment Workshop)* COLL, BUS, H CON
- GEORGE H. HANFORD** . . . . . MONDAY 8:45; STEV 3046  
*How to Save the World: Through Critical Thinking* MUL-CULT, CONF THEME
- WILLIAM K. MAREK** . . . . . MONDAY 10:30; STEV 3046  
*Reason (Unreason), Thought (Rational and Irrational), and Human Conflict* PEACE, H CON, PSYCH
- JENNIFER WILD** . . . . . TUESDAY 8:45; STEV 3026  
*Action Science: The Skills Needed to Critically Reflect on Practice* BUS, H CON, PSYCH, ADV
- RICHARD KELDER** . . . . . TUESDAY 8:45; STEV 3028  
*Teaching Critical Thinking and Argumentation from Global Perspectives* ADV, H CON, H RIGHTS, COLL
- HARRIET CHAMBERLAIN** . . . . . TUESDAY 1:30; STEV 3046  
*Critical Thinking: Catalyst for "Fairminded" Change* H CON, PSYCH, BUS
- ARTHUR COHEN** . . . . . TUESDAY 3:15; STEV 3046  
*"Become Streetwise!" A Women's Guide to Personal Safety* G, H CON

**HUMAN RIGHTS**

- EDWARD D'ANGELO** . . . . . **MONDAY 8:45; STEV 1002**  
*Critical Thinking in Law* COLL, HIGH, H RIGHTS, H CON
- RENÉ TRUJILLO, JR.** . . . . . **WEDNESDAY 8:45; STEV 3046**  
*The Debate Over Human Rights and Social Justice After the Spanish Discovery of the "New" World* MUL-CULT, POL, H RIGHTS, LANG

**LANGUAGE ARTS, ENGLISH**

- KRISTAN CAVINA** . . . . . **SUNDAY 3:15; NICH 173**  
*Teaching Critical Thinking in the Writing Class* LANG, COLL
- FLORENCE FAY PRITCHARD** . . . . . **MONDAY 10:30; NICH 166**  
*Negotiating and Using Frames to Develop Specific Critical Thinking and Writing Skills* LANG, G
- FRANCINE MALDER JAMIN** . . . . . **MONDAY 12:15; IVES 45**  
*A Small Band in a Circle of Light — Teaching Writing and Reasoning in a "Quality Circle"* LANG, COLL, MID/HIGH
- JOHN BYRD** . . . . . **MONDAY 1:30; NICH 173**  
*Metaphorical Thinking in the 21<sup>st</sup> Century: Frill, Option, or Sina Qua Non?* LANG, SOC STUD, MID/HIGH
- DONALD LAZERE** . . . . . **MONDAY 3:15; STEV 2049**  
*Literature for Critical Thinking* COLL, MID/HIGH
- PETER FACIONE, JOANNE GAINEN** . . . . . **MONDAY 3:15; NICH 173**  
*Are New College Students Disposed to Think?* LANG, COLL, TEST
- CARROL STEEDMAN** . . . . . **MONDAY 3:15; STEV 3026**  
*Critical Thinking at the Work Site, in Developmental English Classes, and in Continuing Professional Education: Argument and the Case Study* COLL, LANG, BUS, H CON
- RENEE RUDERMAN** . . . . . **MONDAY 3:15; STEV 3030**  
*Reading the Spaces Between Words: A Critical Inquiry into Toni Morrison's Use of Language in The Bluest Eye* FEM, LANG, COLL
- JEANNE BECIJOS** . . . . . **MONDAY 3:15; NICH 166**  
*In the MUD: A Critical Reading Strategy* HIGH, LANG, MEDIA, SOC STUD
- GAIL A. KENDALL, DIANE WHEELER** . . . . . **TUESDAY 8:45; NICH 173**  
*Project Think: An Integrated Language Arts Approach to Critical Thinking* LANG, MID/HIGH, H RIGHTS, ENV
- SHANNAH PARNELL** . . . . . **TUESDAY 8:45; NICH 166**  
*Re-Reading Hawthorne's 'A': Ideologies and Developing Critical Awareness in the Classroom* LANG, COLL, MID/HIGH
- NORMAN J. UNRAU** . . . . . **TUESDAY 12:15; IVES 78**  
*Critical Thinking in the Narrative Mode: The Force of Stories* LANG, SOC STUD, G

- JAMES HENRY QUINA** . . . . . **TUESDAY 12:15; NICH 173**  
*Teaching Conflict Resolution Through Metaphor* LANG, H CON, H RIGHTS, SOC STUD
- DONALD LAZERE** . . . . . **TUESDAY 3:15; NICH 173**  
*Teaching the Political Conflicts in Writing Courses* LANG, SOC STUD, POL, MEDIA
- KIRK G. DADDOW** . . . . . **WEDNESDAY 8:45; NICH 173**  
*Teaching Critical Thinking in the Advanced Writing Course* LANG, MID/HIGH, SOC STUD
- ANNIE K. KOSHI** . . . . . **WEDNESDAY 10:30; NICH 173**  
*Holistic Grammar Through Socratic Questioning* LANG

**MATH**

- JOHN LOASE, SHERRON SARGENT** . . . . . **SUNDAY 3:15; DAR 122**  
*Sigfluence Our Positive Influence Over Time: A Quantitative and Qualitative Analysis* MATH/SCI, PSYCH, TEST
- JUDITH COLLISON** . . . . . **MONDAY 8:45; DAR 122**  
*Overcoming Math Anxiety of Elementary School Teachers* MATH, ELEM, TEST
- MELVIN POAGE** . . . . . **MONDAY 10:30; DAR 122**  
*A Critical Thinking Approach to Mathematics* MATH, COLL, MID/HIGH
- JUDY FISHEL** . . . . . **TUESDAY 10:30; DAR 122**  
*Benchmarks in Critical Thinking: What Skills at What Age? The Comet Is Coming!* SCI, MATH, K-12

**MEDIA**

- WILLIAM DORMAN, RALPH JOHNSON** . . . . . **SUNDAY 12:15; IVES 119**  
*Media Logic* MEDIA, MID/HIGH, COLL
- BARBARA FORREST** . . . . . **MONDAY 8:45; STEV 3077**  
*Back to Basics: The Use of Newspapers and Other Print Media to Teach Analytical Reading, Writing, and Reasoning* MEDIA, LANG, G
- PETER FACIONE** . . . . . **TUESDAY 8:45; IVES 78**  
*Teaching Critical Thinking Using TV Drama* LANG, COLL, MEDIA, MID/HIGH
- WILLIAM DORMAN** . . . . . **TUESDAY 10:30; STEV 1002**  
*Perceptions, Misperceptions, and Damned Nonsense: The News Media and World Affairs* MEDIA, POL, COLL, MID/HIGH
- PRISCILLA AGNEW** . . . . . **TUESDAY 3:15; STEV 2065**  
*Sex, Death, Advertising, and Children in Our Changing World* MEDIA

## MIDDLE SCHOOL

**RON MCBRIDE, GLENDA BEAMON** . . . . MONDAY 10:30; STEV 2065

*Preparing the Future Critical Thinker: Structuring the Middle School Learning Environment for Critical Thinking*

MID, G

**JOHN EDWARDS, TIMOTHY MELCHIOR** . . . . TUESDAY 8:45; IVES 35

*The Researcher and the Practitioner* MID/HIGH, STAFF DEV,

BUS, G

## MULTI-CULTURAL

**YEHUDI WEBSTER, DAN WEIL, WILLIAM ZEIGER, HILDA CABANEL-EVANS, SUSAN AWBREY** . . . . . SUNDAY 3:15; IVES (WARREN)

*Panel Discussion on Multi-Culturalism* MUL-CULT

**NANCY C. GLOCK** . . . . . SUNDAY 3:15; STEV 3072

*Towards a More Powerful Model of Critical Thinking: Reclaiming Inter-Cultural Ways of Knowing* MUL-CULT, H

CON, ADV

**YEHUDI WEBSTER** . . . . . MONDAY 8:45; IVES (WARREN)

*Multi-Culturalism and Critical Thinking: Compatibility or Competition?* G, MUL-CULT

**ELAINE R. OGNIBENE** . . . . . MONDAY 8:45; STEV 3072

*Stories About Schooling: Multi-Cultural Fictions that Challenge and Create* MUL-CULT, COLL, FEM, MID/HIGH

**GLORIA PIERCE** . . . . . MONDAY 10:30; IVES 78

*The Centrality of Critical Thinking in Educating for Diversity* COLL, BUS, MUL-CULT, SOCIOL

**HILDA CABANEL-EVANS** . . . . . MONDAY 12:15; STEV 3072

*Ethnic Multi-Culturalism: Not for the 21<sup>st</sup> Century* MUL-CULT

**PETER F. BELL** . . . . . MONDAY 12:15; STEV 3026

*Integrating Race and Gender into the Economics Curriculum: Theory and Classroom Practice* ECON, MUL-CULT, FEM, COLL

**YEHUDI WEBSTER** . . . . . MONDAY 3:15; STEV 1002

*Are There White and Black People? Reasoning About Racial Classification* G, SOC STUD, MUL-CULT

**WILLIAM ZEIGER** . . . . . MONDAY 3:15; STEV 3072

*Freedom of Imagination: Stories and Critical Thinking* MUL-CULT, LANG, COLL, MID/HIGH

**WILLIA L. NWA** . . . . . TUESDAY 8:45; STEV 3072

*Cultural Diversity: What Should Educators Do About It?* MUL-CULT, H RIGHTS, COLL, MID/HIGH

**KIM SKOOG** . . . . . TUESDAY 1:30; STEV 3072

*A Cross-Cultural Study of the Interplay Between Reason, Revelation, and Realization* MUL-CULT

**R. SCOTT SMITH** . . . . . WEDNESDAY 8:45; STEV 3072

*A Framework for Applying Critical Thinking to Inter-Cultural Encounters* MUL-CULT, H CON

**RENÉ TRUJILLO, JR.** . . . . . WEDNESDAY 8:45; STEV 3046

*The Debate Over Human Rights and Social Justice After the Spanish Discovery of the "New" World* MUL-CULT, POL, H RIGHTS, LANG

## PEACE

**KATHERINE SMITH, HARRIET CHAMBERLAIN** . . . . . SUNDAY 3:15; STEV 3046

*Global Peace Games: A Role-Play Using Lawrence Kohlberg's Stages of Moral Development* PEACE, POL, PSYCH, H CON

**WILLIAM A. DORMAN** . . . . . MONDAY 10:30; STEV 1002

*In Galileo's Garden: Thinking Critically About a Changed and Changing World* PEACE, POL, ECON

**EDWARD RIPPY** . . . . . MONDAY 12:15; STEV 3046

*The Multiple Costs of "Defense": Spending Money, Freedom, and Blood to Protect "Our" Vital Interests Around the Globe* PEACE, MEDIA, ECON, PSYCH

**ROBIN SKEWES-COX, BENNET SKEWES-COX** . . . . . TUESDAY 8:45; STEV 3046

*How to Think About War and Peace, Part I* H CON, PEACE, G

**BENNET SKEWES-COX, ROBIN SKEWES-COX** . . . . . TUESDAY 10:30; STEV 3046

*How to Think About War and Peace, Part II* H CON, PEACE, G

## PSYCHOLOGY

**JOHN F. LOASE, SHERRON SARGENT** . . . . . SUNDAY 3:15; DAR 122

*Sigfluence Our Positive Influence Over Time: A Quantitative and Qualitative Analysis* MATH/SCI, PSYCH, TEST

**STUART M. KEELEY** . . . . . MONDAY 12:15; IVES (WARREN)

*What Can Psychotherapists Tell Us About How to Cope with Resistance to Critical Thinking* PSYCH, COLL

**LAUREN COODLEY** . . . . . TUESDAY 12:15; STEV 3028

*Psychology as a Critical Thinking Requirement: How to Do it* PSYCH, COLL



## PSYCHOLOGY

Continued

- SUSAN HALES** . . . . . TUESDAY 1:30; SUMPR  
*Uncovering the Connections Among Self-Esteem, Critical Thinking, Moral Behavior, and Educational Achievement, Part I* K-12, PSYCH
- SUSAN HALES** . . . . . TUESDAY 3:15; SUMPR  
*Uncovering the Connections Among Self-Esteem, Critical Thinking, Moral Behavior, and Educational Achievement, Part II* K-12, PSYCH
- LOWELL COOPER** . . . . . WEDNESDAY 10:30; IVES 79  
*Using Critical Thought as a Way Out of Negative Relationship Cycles* PSYCH, H CON

## SCIENCE

- JOHN F. LOASE, SHERRON SARGENT** . . . . . SUNDAY 3:15; DAR 122  
*Sigfluency Our Positive Influence Over Time: A Quantitative and Qualitative Analysis* MATH/SCI, PSYCH, TEST
- MARK WEINSTEIN** . . . . . MONDAY 8:45; CAR 68  
*Critical Thinking and the Goals of Science Education* sci, COLL, HIGH
- MAURICE A. FINOCCHIARO** . . . . . MONDAY 3:15; ART 108  
*Galileo and Critical Thinking* COLL, SCI, H CON, H RIGHTS
- OBED NORMAN** . . . . . TUESDAY 8:45; DAR 122  
*Critical Thinking and the Education of Science Teachers: Building a Community of Meaning Makers* sci, MUL-CULT, G
- JUDY FISHEL** . . . . . TUESDAY 10:30; DAR 122  
*Benchmarks in Critical Thinking: What Skills at What Age? The Comet Is Coming!* sci, MATH, K-12
- GEORGE COLLISON** . . . . . TUESDAY 1:30; STEV 1040  
*Project BioQUEST: New Tools for Critical Thinking and Constructionist Pedagogy in Life Science Education* G, SCI, ENV, COMPUTER ASST ED
- WILLIAM A. HAYES** . . . . . WEDNESDAY 8:45; DAR 122  
*Designing Effective Thinking Activities in Science: Principles, Theories, Attitudes, Habits, and Skills* sci, MID/HIGH, COLL

## SOCIAL STUDIES

- EDWARD D'ANGELO** . . . . . MONDAY 8:45; STEV 1002  
*Critical Thinking in Law* COLL, HIGH, H RIGHTS, H CON

- CHARLES ANGELETTI** . . . . . MONDAY 10:30; IVES 79  
*Relics, Letters, and Walk-Abouts: Creative Expression Through Critical Thinking* COLL, SOC STUD
- ROBERT N. GILBERT** . . . . . MONDAY 12:15; STEV 3030  
*Doing Survey Research in the Intro Social Science Course: Putting Science Back into Social Science, an Example of Critical Thinking* SOC STUD, HIGH
- LARRY TOMLINSON** . . . . . TUESDAY 1:30; IVES 45  
*Critical Thinking and Cultural Bashing* POL, SOC STUD, MEDIA
- DONALD LAZERE** . . . . . TUESDAY 3:15; NICH 173  
*Teaching the Political Conflicts in Writing Courses* LANG, SOC STUD, POL, MEDIA
- MICHAEL McLAIN-MIDKIFF** . . . . . TUESDAY 3:15; STEV 3030  
*Levels of Thoughtfulness in Fifth Grade History and Social Science Lessons: An Examination of Teacher Practice* K-12, SOC STUD, TEST

## STAFF DEVELOPMENT

- MARY E. DIETZ, BOB VAN ZANT** . . . . . SUNDAY 12:15; STEV 3036  
*Professional Development Portfolio: A Constructivist Approach for Professional Development* K-12, STAFF DEV, TEST, ADV
- RAQUEL HENRY, NELLIE THOROGOOD, ROSE AUSTIN** . . . . . SUNDAY 3:15; STEV 3049  
*Classroom, Curriculum, and Leadership Reforms: Developing Critical Thinkers in the Community College* COLL, STAFF DEV
- DIANE D. CHEATWOOD** . . . . . SUNDAY 3:15; STEV 2065  
*Thinking Across the College: The Integrated Thinking Skills (Faculty) Project Expands* HIGH, COLL, STAFF DEV
- JOSEPHINE NAEHRBASS, GAIL KENDALL** . . . . . MONDAY 10:30; STEV 3049  
*"Putting It all Together:" An Integrated Staff Development Model* G, STAFF DEV
- VIRGINIA O'KEEFE** . . . . . MONDAY 12:15; IVES 78  
*Empowering Students and Teachers Through Critical Thinking Research* STAFF DEV, MID/HIGH, LANG
- RICHARD OGNIBENE** . . . . . MONDAY 1:30; IVES 35  
*Thinking Critically About the Total Quality Movement in Education* STAFF DEV, K-12
- TIMOTHY M. MELCHIOR** . . . . . MONDAY 1:30; STEV 3036  
*Connecting Learning Through Thinking Dichotomies: Memorial's (Valley Stream, New York) Polar Conflicts* STAFF DEV, K-12

## STAFF DEVELOPMENT

Continued

- LORENZ BOEHM, MARK WEINSTEIN** . MONDAY 3:15; IVES (WARREN)  
*Balancing Acts: Working With Colleagues to Teach  
Critical Thinking* STAFF DEV, COLL
- JEAN ANN FOLEY** . . . . . TUESDAY 10:30; NICH 173  
*Teacher Ethos: A Veil of Perception That Precludes Critical  
Thinking* STAFF DEV, ELEM, MATH/SCI
- MARK WEINSTEIN** . . . . . TUESDAY 3:15; STEV 1002  
*Critical Thinking Across the College Curriculum: What  
Faculty Wants and Needs* STAFF DEV, COLL
- RICHARD W. PAUL** . . . . . WEDNESDAY 8:45; STEV 1002  
*Staff Development: If It Is Not Long-Term and  
Comprehensive, It Won't Work!* G, STAFF DEV, BEG
- RUTH M. LORING** . . . . . WEDNESDAY 8:45; IVES 78  
*Critical Thinking and Professional Development: An  
Approach Consistent with "Communitarian Capitalism"*  
TEST, STAFF DEV

## TESTING AND ASSESSMENT

- LEAH SHELEDA** . . . . . SUNDAY 1:30; DAR 137  
*Does Logic Teach Critical Thinking?* COLL, TEST, LANG, ADV
- PETER FACIONE** . . . . . SUNDAY 3:15; DAR 137  
*Classroom Critical Thinking Assessment — The Basic  
Ways and Means* TEST, SOC STUD, COLL, MID/HIGH
- ROBERT SWARTZ** . . . . . MONDAY 8:45; STEV 2049  
*Assessing the Quality of Student Thinking: Techniques for  
Classroom Teachers* TEST, G
- GREGORY RICH** . . . . . MONDAY 8:45; NICH 304  
*Critical Thinking at Fayetteville State University: An  
Initial Assessment* COLL, TEST
- JOHN HOAGLUND** . . . . . MONDAY 1:30; ART 108  
*Pre- and Post-Testing a College Critical Thinking Course*  
COLL, TEST
- RICHARD W. PAUL** . . . . . TUESDAY 8:45; IVES (WARREN)  
*How to Design Assignments and Activities (So That  
Students Learn How to Assess Their Own Performances)*  
G, TEST, BEG
- JOANN CARTER-WELLS, CINDY LYNCH** . . . . . TUESDAY 8:45; DAR 137  
*Adult Development and the Assessment of Critical  
Thinking* TEST, PSYCH, COLL

- RICHARD W. PAUL** . . . . . TUESDAY 10:30; IVES (WARREN)  
*Pseudo-Critical Thinking: Beware! (How to Distinguish  
Authentic and Substantial Approaches to Critical Thinking  
from the Slick Counterfeits Now Sweeping the Educational  
Marketplace)* G, TEST, BEG
- RUBY TROW, MARILYNN FILBECK** . . . . . TUESDAY 10:30; DAR 137  
*Involving Students in Assessing Academic Performance*  
TEST, G
- JIM POLLARD** . . . . . TUESDAY 1:30; DAR 137  
*Learners Can Achieve 100% (A Self-Assessment  
Workshop)* TEST, ADV, BUS, G
- DONALD HATCHER** . . . . . TUESDAY 3:15; DAR 137  
*Grading the Ennis-Weir Critical Thinking Essay Test* TEST, G
- RICHARD W. PAUL** . . . . . WEDNESDAY 10:30; CAR 68  
*"Outcome-Based," "Cooperative," "Meaning-Centered,"  
"Authentic," "Re-Structured," "Constructed,"  
"Performance-Driven," "Multi-Cultural," "Self-Esteem,"  
"Thinking," and "Learning" — Come Find Out What Is  
Right and Wrong with the Jargon of the Day* G, TEST, BEG

## THEORETICAL ORIENTATION

- BRADLEY BOWEN** . . . . . MONDAY 1:30; STEV 3040  
*Justifying Critical Thinking* THEORY, COLL
- RALPH H. JOHNSON** . . . . . TUESDAY 8:45; STEV 3008  
*Argumentation: A Pragmatic Approach* THEOR
- MARK WEINSTEIN** . . . . . TUESDAY 10:30; CAR 68  
*How to Get from Ought to Is: Post-Modern Epistemology  
and Social Justice* H RIGHTS, THEORY
- CONNIE MISSIMER** . . . . . TUESDAY 1:30; STEV 3040  
*Getting up to Snuff in Theorizing About Critical Thinking*  
ADV, THEORY, MUL-CULT

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## CONFERENCE ABSTRACTS

**ADAMS, PETER DOW**

*Professor of English, Essex Community College*

TUESDAY 10:30; IVES 78

**Critical Thinking in the Core Classroom** MUL-CULT, COLL, HUMANITIES, ART

Many colleges and universities have moved toward the inclusion of interdisciplinary core courses in their general education requirements. This workshop will explore the differences between teaching in such a course and teaching an introductory course in a discipline. I will argue that the emphasis in a core course shifts away from covering specific "content" to teaching students how to *read* a text more perceptively and to *think* about it more deeply. I use the term "text" to refer to any work which is studied in the course, including examples from literature, philosophy, art, music, dance, psychology, anthropology, and many other disciplines. I will illustrate how these principles play out in the classroom by demonstrating (and occasionally asking those present to participate in) a series of activities from a unit on African masks and figure sculpture. A number of activities involving African art will be presented and discussed. Besides the consideration of critical thinking in the core classroom, participants will also learn a little about African art.

**ADY, PAUL**

*Associate Professor of English, Assumption College*

SUNDAY 1:30; IVES 45

**Bringing the Play Element into Critical Thinking Instruction: The Brutus Family of Dysfunctional Arguers** LANG, MEDIA, G

When in teaching important terms in critical thinking do you too often and too rapidly induce MEGO (My Eyes Glaze Over) in your students? Frankly, is the language sometimes so distancing, so removed from their culture, that they lose interest? Do you sometimes wish you could find other ways to make all this important material, well, less stuffy, less intimidating for them?

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This workshop will discuss and demonstrate ways that we can employ playful strategies to teach argumentation analysis and evaluation. In sharing his own techniques in making such instruction more intriguing to our student culture, the session leader will introduce participants to a "family" that has made argument analysis and the teaching of fallacies more engaging: The Brutus Family of Dysfunctional Arguers (Brutus, his dim bride Edith, their two sons Slick and silent Darryl, daughter Annie, Sprocket the dog). The troubled couple (false analogy) Dick and Jane will show up, too. Arguments encoded in visual media included.

**AGNEW, PRISCILLA** TUESDAY 3:15; STEV 2065  
*Professor of Philosophy, Saddleback College*

**Sex, Death, Advertising, and Children in Our Changing World** MEDIA  
 Every person is exposed to about 1000 advertisements daily. The number of ads seen by children will increase with the proposed introduction of commercial educational programs (together with advertisements) into the classrooms. Sex and death images are found in advertising in the form of subliminal messages which are not readily available to us on a conscious level, so that we are unable to critically evaluate these advertisements. In this slide presentation, we shall look at some of the techniques used by advertisers, and then shall focus on ads which depict children and also use subliminal images of sex and death. We will discuss some of the troubling questions which are raised by the use of these images.

**ANGELETTI, CHARLES** MONDAY 10:30; IVES 79  
*Professor of History, Metropolitan State College of Denver*

**Relics, Letters, and Walk-Abouts: Creative Expression Through Critical Thinking** COLL, SOC STUD  
 In this participatory workshop attendees will closely examine three specific writing assignments, as handouts, which challenge college students to think and write critically and creatively in the Social Sciences/Humanities. Participants will be asked to write short responses to a select number of exercises contained within the three writing assignments. Each assignment has an experiential component which can utilize information from a variety of disciplines. Select student papers will also be given out (with permission of authors, of course). Small and large group discussion will focus on an evaluation of these writing exercises, the critical thought processes involved, and the transformative learning emanating from a creative, critical and experiential approach to studying American society and thought.

**ARETZ, DOUGLAS B.** TUESDAY 8:45; STEV 2083  
*M-TEC Program Coordinator, Tech Prep Department, Milwaukee Area Technical College*

**School-to-Work Transition (Tech Prep) in Metro-Milwaukee** C, BUS  
 Milwaukee Area Technical College is in the process of assisting schools with educational reform by implementing Tech-Prep principles in classroom lesson units and teacher curricula. The goal is to transform skills, abilities, and

knowledge of the student so that he/she is able to adequately perform in the workplace after high school or in a college setting. Through visual and hands-on demonstrations, the audience will experience the Tech-Prep model that schools are experiencing in Southeastern Wisconsin.

**AWBREY, SUSAN M.** MONDAY 8:45; IVES 35  
*Associate Professor of Education, Oakland University*

**Educating Critical Thinkers for a Democratic Society** COLL, MUL-CULT, POL, SOCIOL  
 Today we are faced with conditions that demand a resurgence of the vision which was expressed in the writings of John Dewey and C.S. Pierce and which was implicit in the ideals of Greek citizenship if we are to meet the challenges necessary to maintain and enhance our democratic way of life. Our society is undergoing dramatic upheaval and we must respond politically and economically. Philosopher Nicholas Maxwell states that "We urgently need a new, more rigorous kind of inquiry [which] would have as its basic aim to improve, not just knowledge, but also personal and global wisdom ... the capacity to realize what is of value in life." This session will consider how such wisdom can be taught, why it is the role of the university to teach wisdom, and changes that may be necessary to create a university environment that fosters the development of wisdom. The presenters argue that inquiry and critical thinking form the process for discovering meaning in our lives. Participants will be invited to visualize the critical thinking university of the future.

**BAKER, PAUL J.** TUESDAY 12:15; STEV 3036  
*Professor of Educational Administration, Illinois State University*

**Critical Thinking in Social Science and Social Studies: Authentic Work and Authentic Assessment** HIGH, SOC STUD, SOCIOL, TEST  
 This workshop addresses the fundamental problem of helping students read and think at the same time. Students are taught to bring reading and thinking together as an integral process. Making this connection is the authentic work of those who hope to understand the civic culture of their day. Several thinking frames are integrated in a systematic critical thinking model that can be applied to a wide array of case materials: newspaper items, political speeches, popular magazines, articles from learned journals, and books. This workshop also examines the importance of developing various strategies of authentic assessment that are appropriate for the authentic work of critical literacy.

**BAKER, PAUL J.** WEDNESDAY 10:30; STEV 2049  
*Professor of Educational Administration, Illinois State University*

**JUDITH LAWSON**  
*Graduate Student in Educational Administration, Illinois State University*  
**Developing Thinking Programs in Three K-8 Schools: Lessons from the Field** K-12

This session examines crucial issues in the development of school-wide programs that foster opportunities for all teachers and students to be involved

in higher order reasoning. We present an ethnographic report from three successful endeavors to make systematic changes on behalf of critical and creative thinking. Each school developed a distinctive approach to the critical thinking agenda as well as a particular strategy of planned change that maximized broad participation and ownership. We share observations and insights from these innovators and consider lessons to be learned for others who hope to develop schools of thought.

**BAKER THORNE, BONNIE** SUNDAY 1:30; IVES 35  
*Professor of Library Science, Sam Houston State University*

**ANN JERABEK**  
*Reference Librarian and Coordinator of Inter-Library Loan, Sam Houston State University*

**Developing Strategies That Use Critical Thinking to Infuse a Global Perspective into the Curriculum** K-12, SOC STUD

Recognizing the growing social, economic, and civic need for citizens who are proficient in reasoning through the problems and issues facing the world, a model was developed to be used to infuse a global perspective into the curriculum. The model consists of five overall goals: 1) to help students accept people as individuals while appreciating both ethnic and cultural diversity and similarities among Americans; 2) to help students develop into environmentally responsible citizens; 3) to help students understand the economic interdependence of communities; 4) to help students understand and evaluate various political systems and processes in order to acquire the skills necessary to participate fully as responsible citizens and 5) to help students understand the technological interconnection of the world systems and to develop the technological capability to cope with a rapidly changing society. Using the model as a basis for discussion the participants of this workshop will be asked to develop additional strategies.

**BARELL, JOHN** MONDAY 10:30; IVES 119  
*Professor, Curriculum, Montclair State College*

**Toward Antarctica: Autobiography, Narrative, and Critical Inquiry** c, LANG

Narrative is a way of knowing about ourselves and others that is too often overlooked in deference to scientific, logical reasoning. Our minds construct meaning and store information in memory with narrative structures and the imaginative processes we use (generating possibilities, visualizing, empathizing) are fundamental to how we learn. The stories we tell with our lives are reflected in the ways in which we teach and the curricula we design. This session uses the presenter's pursuit of Antarctica as a metaphor for reflecting on the stories our lives tell. Within our own autobiographies, our own stories, there are also models of critical inquiry which we draw on today. Participants will be encouraged to reflect on their own autobiographies as a means of understanding current pedagogical and curricular practice and then to consider how narrative structures can be used to enhance

opportunities for all of us to become the authors of our own stories, not merely the readers of others' narratives.

**BARELL, JOHN** TUESDAY 10:30; IVES 119  
*Professor, Curriculum, Montclair State College*

**Crew Members on Santa Maria: Problem-Based Learning, Inquiry, and the Pursuit of Deep Understanding** c, SOC STUD

What if you had been a member of Columbus' crew during that eventful journey in 1492? How would you have responded to the challenges of the elements and the unknown? This is one of several intellectually complex challenges that this session will explore in history, literature, math, and science as models of problem-based learning. These experiences provide opportunities for students to take more active control of their own learning by posing question (using KWHL) and imagining themselves as participants in problematic situations that encourage critical inquiry. Participants in this workshop will engage in problem solving, decision making, and reflecting on their own experiences as means of considering the extent to which their own pedagogical and curricular practices enhance students' deep understanding of significant concepts and ideas.

**BARNES, CYNTHIA A.** SUNDAY 3:15; STEV 3077  
*Dean of Educational Development, Community College of Aurora*

**Mapping: Getting Students, Not Faculty, to "Cover the Material"** c

This "brains-on" session will acquaint participants with mapping: a tool learners can use to process what they think, see, read, hear, and compose. After a brief mapping fundamentals discussion, including right brain/left brain theory, mapping formats, and real-life examples, self-managed groups of participants will "map" various teaching-for-thinking strategies. Participants will then "map" discipline specific strategies for infusing both mapping and teaching-for-thinking strategies into their courses.

Through participation in this session, teachers will see how mapping can be used to get students themselves to "cover the material." Someone once said that much of what we call teaching involves, "the notes of the professor getting into the notes of the student without going through the minds of either." Mapping forces information through the mind. As a tool for mental discipline and mental organization, mapping, inherently, empowers learners to think and organize for themselves.

**BARNES, CYNTHIA A.** TUESDAY 12:15; IVES 35  
*Dean of Educational Development, Community College of Aurora*

**Developing Teachers: "When the Student Is Ready"** c

Educational reform without educator reform is folly! It is ironic that while the word "education" comes from "educare," which means "to draw out," much of what we do in schools today attempts to "jam in". Education has

become synonymous with knowledge acquisition instead of people transformation. This occurs, in part, because we make fallacious assumptions about who teaches what and whom and who learns what and from whom in our classrooms. Who is the teacher and who is the learner in our classrooms?

The answer may be that every teacher is a learner and every student is a teacher. Teaching for a change — and that is what teaching for critical thinking is all about — requires an understanding of the developmental “waves” teachers go through as they evolve from novice to master teachers-as-learners. Through a dramatization of these developmental “waves” and small-group activities focused on the needs of teachers at each, participants will explore when, how, and whether teachers are ready to teach for critical thinking.

**BECIJOS, JEANNE**

*Language Arts Teacher, Castle Park High School*

**MONDAY 3:15; NICH 166**

**In the MUD: A Critical Reading Strategy** HIGH, LANG, MEDIA, SOC STUD

This workshop demonstrates a critical reading strategy developed to be used with non-fiction text. The theory behind the strategy and its success in classroom research will be examined. The strategy was developed for high school students in order to provide an organized overview of the main factors involved in critical reading. Once the students have received an overview of critical reading, then the teacher may go into depth in regards to the numerous skills and dispositions that relate to critical thinking. The strategy is based on mnemonics and organization. The acronym MUD refers to the idea that a student analyzes a text as to whether it is “in the MUD” (M=meaningless, U=unsupported, D=deceptive) or it is written clearly, logically, and with support. Materials analyzed during the workshop include an editorial, movie review, and *National Enquirer* article.

**BELL, PETER F.**

*Executive Director, New York State Council on Economic Education, S.U.N.Y., Purchase*

**MONDAY 12:15; STEV 3026**

**Integrating Race and Gender into the Economics Curriculum: Theory and Classroom Practice** ECON, MUL-CULT, FEM, COLL

This paper will discuss recent research on the theory and pedagogy of integrating race and gender into the economics curriculum. It seeks to build a race and gender centered approach to course development in both college and high school economics. It draws on the National Science Foundation funded workshop (May 22-26, 1993) which was devoted to this issue.

**BETZ, NORMAN J.**

*Associate Professor of English and Philosophy, Central Missouri State University*

**TUESDAY 12:15; STEV 3030**

**Classroom Materials and Methods for a Critical Thinking or Writing Course** COLL, LANG, MEDIA

In this participatory workshop, attendees will practice critical thinking about current issues in newspapers and magazines and on television (“Juice Bars,” “Religion in Adrian Public Schools,” “A Gentle Way to Die,” “Forfeiture Law”).

Participants will see how an awareness of claims, evidence, assumptions, definitions, analogies, etc., should underlie classroom discussion of current events. Participants should be able to use these processes and the handouts from a college writing course to generate some critical thinking skills, some sharper classroom discussion, and more thoughtfully focused writing in their students.

**BLAIR, KAY**

*Training Specialist for Supplemental Instruction, University of Missouri*

**TUESDAY 8:45; STEV 3030**

**Improving Critical Thinking Through Supplemental Instruction** COLL

Supplemental Instruction (SI) is an academic assistance program that targets historically difficult courses and offers to all enrolled students regularly scheduled, out-of-class, peer facilitated sessions. SI study sessions are informal seminars in which students compare notes, discuss readings, develop organizational tools and predict test items. Students learn how to integrate course content and reasoning skills. The SI leader (a student) acts as a model student of the discipline. This provides a non-threatening environment for students to interact and appreciate one another. Research consistently documents that students from non-Caucasian ethnic groups participate in SI sessions at higher percentages than their representation in the overall student population.

National research over the past decade from 49 institutions document the following benefits for SI attendees: higher course grades for matched populations (one-half to one full letter grade), lower percentages of course withdrawals (one-fourth to one-half), higher semester re-enrollment rates, and higher graduation rates.

**BLATZ, CHARLES V.**

*Associate Professor and Chair of Philosophy, University of Toledo*

**MONDAY 8:45; STEV 3026**

**Critical Thinking and the Sovereignty of Political and Economic Communities** ADV, BUS, ECON, POL

Robert Reich in *The Work of Nations*, challenges state sovereignty by urging that our nation's corporations are “global enterprise webs” having exclusive allegiances to their stockholders and customers, *not* national institutions having allegiances in part to the work force and economy of their home state. Such a view contains just one of the contemporary challenges to the sovereign power of states to order their political and economic affairs of their citizens. In this paper I want to suggest that viewing critical thinking as pragmatic at its foundations, and constructive as well as multi-logical in its practice, allows us to understand both innovations in the rules ordering political and economic associations, and also the limits on such innovations.

**BLATZ, CHARLES V.**

*Associate Professor and Chair of Philosophy, University of Toledo*

**WEDNESDAY 8:45; STEV 3040**

**Critical Thinking and the Sovereignty of Epistemic Communities** ADV, BUS, ECON, POL

Parallel to challenges to state sovereignty, contemporary multi- and cross disciplinary studies challenge the sovereignty of established disciplines and

their canons. At stake is the legitimate self-determination of groups of inquirers — epistemic communities, with respect to background assumptions, common bodies of knowledge, and strategies of inquiry. I will explore how taking critical thinking as pragmatic at its foundations, and constructive as well as multilogical allows us to understand the possibilities, nature and limits of innovation in epistemic communities.

**BOEHM, LORENZ**

*Professor of English, Oakton Community College*

SUNDAY 1:30; STEV 1002

**Natural Allies: Teaching, Learning, Writing, and Critical Thinking, Part I**  
COLL, TEST, MID/HIGH

This two part workshop will introduce specific, practical ways teachers can use writing to help students learn course content and help them develop and strengthen their ability to think critically. While I'll pay some attention to standard, formal writing (essays, reports, and research papers), the sessions will emphasize "short writes," "mid writes," freewriting, journals, and "microthemes." Sample assignments, designed to foster critical thinking and independent learning, which were created by faculty members from a variety of schools and disciplines, are featured.

**BOEHM, LORENZ**

*Professor of English, Oakton Community College*

SUNDAY 3:15; STEV 1002

**Natural Allies: Teaching, Learning, Writing, and Critical Thinking, Part II**  
COLL, TEST, MID/HIGH

In this half of the session we'll continue to explore ways in which writing can be used to teach and assess CT.

**BOEHM, LORENZ**

*Professor of English, Oakton Community College*

MONDAY 3:15; IVES (WARREN)

**MARK WEINSTEIN**

*Associate Director, Institute for Critical Thinking, Montclair State College*

**Balancing Acts: Working With Colleagues to Teach Critical Thinking**  
STAFF DEV, COLL

Working with colleagues in order to get critical thinking taught across the curriculum can be a powerful, rewarding, invigorating, delightful experience. It can also be incredibly frustrating, unpleasant, and downright painful. In this session we will offer brief descriptions of how our institutions have addressed this work, and we will explore many of the key issues in faculty development in critical thinking instruction.

**BORAAS, BRUCE**

*Executive Member, Minnesota High Tech Council*

WEDNESDAY 8:45; STEV 3026

**Education and Training for a Global Perspective — One Collective View from Industry** BUS, G

In the United States we confuse education and training, and have been guilty of fostering the idea that training and education are synonymous and equivalent. Until recently this confusion has been quite effectively camouflaged by the industrial revolution.

Only lately, in the emergence of the information age, has American business and industry begun to articulate its collective understanding that the American educational systems are expected to *educate*. Business and industry will *train*.

The definition of an educated person contains many nuances, but there are core elements that surely include robust performances of competency in analysis, synthesis, design and creativity. The educated person must also demonstrate multiple-dimensional communication skills, strong interpersonal skills, and sound critical thinking skills. Without at least these three intellectual building blocks future training may be cumbersome, costly and likely, futile.

**BOWEN, BRADLEY**

*Doctoral Student of Philosophy, University of California at Santa Barbara*

MONDAY 1:30; STEV 3040

**Justifying Critical Thinking** THEORY, COLL

In this session some different justifications of critical thinking will be explained, scrutinized, and discussed. The focus will be on the justifications of critical thinking offered by John McPeck, Richard Paul, and Harvey Siegal. In addition to examining these specific defenses of critical thinking, there will be some exploration of background issues such as: a) Why do we need to justify critical thinking? b) What sort of justification is needed?

**BOYD, DARLENE**

*Director, Pre-College, Education and Community Program, University of California, Irvine*

MONDAY 8:45; IVES 45

**Teaching: A Conceptual Analysis** G, ADV

This session will offer a reading of a paper followed by discussion, activity and interchange.

The act of "teaching" is sometimes compared with terms such as "indoctrinating" or "propagandizing" or "preaching". A research paper will serve as the focus of this session. It will offer consideration of a study concerned with a conceptual analysis of teaching. More specifically, this study is an attempt to present a rational reconstruction of the concept of teaching so that it is, hopefully, more suitable for research. In the spirit of "Every person a teacher — Every teacher a learner," a very basic question will be considered for session discussion. What do we mean when we use the term "teaching"?

**BROWN, LYNDA N.**

*Associate Professor of Nursing, University of Kentucky*

MONDAY 12:15; STEV 2049

**SANDRA A. JONES**

*Dean of Nursing, Aurora University*

**Critical Thinking: A Super-Ordinate Concept for Teaching Nursing**

HEALTH, TEST

A participatory workshop which will focus on teaching strategies and selected assessment techniques relevant for nursing education. Critical thinking will be conceptualized as a super-ordinate concept under which problem solving (nursing process) is subsumed. Critical thinking is defined as analyzing complex meanings, critiquing solutions, exploring alternatives, and making contingency-related value judgments.

**BROWNE, M. NEIL**

*Distinguished Professor of Economics, Bowling Green State University*

TUESDAY 12:15; ART 108

**Tensions Between Democracy and Critical Thinking: Implications for Our Teaching**

SOC STUD, MID/HIGH, COLL

As teachers of critical thinking, we presume we are contributing to the democratic spirit. We speak of critical thinking as empowering. However, both the acquisition of critical thinking competencies and the evaluation of their use may be quite inconsistent with democracy.

This session begins by my presentation of as strong an argument as I can create, moving toward the conclusion that in important ways the teaching of critical thinking must be *antagonistic to democracy*. What we as teachers are encouraging through the actual process of teaching critical thinking, as well as in our assignments and evaluation techniques, contain anti-democratic elements.

The bulk of the session will consist of our interaction concerning the argument. My hope is that you can persuade me of my error. Is there a critical thinking pedagogy that is both democratic and effective?

**BROWNE, M. NEIL**

*Distinguished Professor of Economics, Bowling Green State University*

WEDNESDAY 8:45; ART 108

**STUART M. KEELEY**

*Professor of Psychology, Bowling Green State University*

**Getting Started as a Teacher of Critical Thinking: Planning Curriculum Materials, Assignments, and Evaluation**

COLL

Now that you are committed to teaching critical thinking, how can you best achieve your intentions? This session is designed to share experiences and lessons from over 20 years of teaching critical thinking. The presentation will proceed logically through the entire teaching process from the creation of course objective through assessment of student performance.

Emphasis of the presentation will be on the practical. Numerous handouts will be provided to serve as stimuli for thinking about typical problems and

options. Experienced members of the audience will be given the opportunity to spell out which of our approaches and strategies that they have found especially effective.

**BUSCHER, HENRY N.**

*Chairman, Department of Science, Monsignor Kelly High School*

MONDAY 10:30; DAR 139

**LIANNE K. SCHNEIDER**

*Chair, Department of Theology, Monsignor Kelly High School*

**Environmental Ethics in the New Global Economy: A Critical Thinking Approach for Secondary Students**

MID/HIGH, ENV, SOCIOL, ECON

This session is a participatory workshop in which the cultural, political, and educational obstacles to the transformation of thinking about new global realities in regard to economics, ethics and the environment are explored. Participants will be invited to undertake several small group exercises in critical reading, concept identification, and implication analysis using graphic organizers which are designed to foster interdisciplinary learning at the secondary level in order to overcome these obstacles

**BYRD, JOHN**

*Chair of English Department, Seoul Foreign High School*

MONDAY 1:30; NICH 173

**Metaphorical Thinking in the 21<sup>st</sup> Century: Frill, Option, or Sina Qua Non?**

LANG, SOC STUD, MID/HIGH

This participatory workshop will examine the crucial role of the metaphor in human communication and thought. The metaphor — more than merely words — is a way of thinking which extends far beyond the province of poets and literature teachers to the language of pre-kindergartners, to politics, business, and psychology, and to virtually every area of discourse. The paramount role of language in the new world of the 21<sup>st</sup> Century requires that we develop an awareness of, and sensitivity to, the metaphor. Since metaphors allow us to understand ourselves and our world in unique ways, we must give attention in our teaching to this crown jewel of imaginative/logical expression.

**CABANEL-EVANS, HILDA**

*Professor of Philosophy, Humanities, and Foreign Languages, Rio Hondo College*

MONDAY 12:15; STEV 3072

**Ethnic Multi-Culturalism: Not for the 21<sup>st</sup> Century**

MUL-CULT

Although the diversity that multi-culturalism has brought into the classroom is a most welcome antidote to previous ethnocentricity, its implementation has distorted global realities for the understanding of race, gender, ethnic background, culture and variety in United States history and society. Our multi-cultural classroom further warps an authentic world view, since it is primarily the inhabitants from dysfunctional societies, rather than satisfied citizens, who tend to emigrate.



The socioeconomic, political and cultural realities of the future have to deal with a global village wherein ideals were fostered by both East and West, North and South, in proportions unrelated to the curriculum, a point on which I will elaborate. I will also contend that a multi-cultural ideology should emphasize foreign language acquisition for all students, beginning at the elementary level and continuing through higher education. A foreign language, by mirroring a different culture and expressing different forms of thought is also a boon to the development of critical thinking.

**CABANEL-EVANS, HILDA**

TUESDAY 3:15; STEV 3049

*Professor of Philosophy, Humanities, and Foreign Languages, Rio Hondo College*

**Thurow's Head to Head: An Exercise in Critical Thinking** ECON, ADV, G

The purpose of this presentation is to suggest a model for the type of analysis we want from our students. Based on the Foundation for Critical Thinking's elements, standards and (I hope) abilities for reasoning, *form* will be at least as important as *content*. Thurow's assessment of the economic landscape of the twenty-first century, as one of the recommended readings to be used as a point of departure for this conference, provides a natural springboard for an intellectual exercise of this kind.

Since the reconstruction of the author's tacit assumptions and the determination of implications and consequences is (to some degree) drawn from the reviewer's frame of reference, the analysis will be broadened and enhanced by a discussion that will include other viable points of view and an evaluation of the model under consideration. The end result should be a fair-minded appraisal of both the contents of the text, its proposals and predictions, and a possible paradigm for text analysis, synthesis and evaluation.

**CABANEL-EVANS, HILDA**

WEDNESDAY 10:30; STEV 3049

*Professor of Philosophy, Humanities, and Foreign Languages, Rio Hondo College*

**Classification Skills: Essential Yet Over-Looked** c

The ability to mentally organize by means of the principles of classification is a most important thinking tool that has largely been neglected in the classroom. Useful and relevant all across the curriculum (not only in science, as some believe), the ability to classify provides a framework from which intellectual standards and reasoning abilities can be attained, and is a springboard for meaningful analysis, synthesis and evaluation. It even spills into everyday life by providing better patterns from which to rank preferences. Enhancing and rectifying these skills is all the more urgent because numerous social factors contribute to distort them. Yet the essential underpinnings of these skills are relatively easy and brief to acquire, as this workshop on the basics will attest. It will be followed by a discussion on how to best implement them in all levels and areas of instruction.

**CARTER-WELLS, JOANN**

TUESDAY 8:45; DAR 137

*Coordinator, Reading Program, Cal State University, Fullerton*

**CINDY L. LYNCH**

*Assistant Coordinator, Higher Education, University of Denver*

**Adult Development and the Assessment of Critical Thinking** TEST, PSYCH, COLL

Participatory workshop focused on recent research related to the assessment of various aspects of critical thinking and problem solving in adults. Relevant background information will include theoretical perspectives and national outcomes assessment issues. Particular emphasis will be placed on the assessment measures and research linked to two current adult development theories — Learning Environment Preferences (William Moore and William Perry) and Reflective Judgment (Patricia King and Karen Kitchener). Open discussion on the teaching/learning/workplace implications and further research issues will provide a forum for networking opportunities beyond the conference.

**CATSOU LIS, JEANNETTE M.**

MONDAY 8:45; STEV 3030

*Lecturer of Philosophy, University of Nevada, Las Vegas*

**Gender Conflict: Images of Women in Advertising** MEDIA, FEM, SOC STUD

If cooperation is to be the watchword of our future, its presence is perhaps most essential in the relationship between the sexes. Increasingly today our cultural messages stress gender conflict and hostility, from television "sit-coms" to rock music videos. Some of the most disturbing examples of these messages occur in advertising, which continues to depict women in degrading and offensive ways, in spite of the critical attention paid to its methods by the women's movement. Many recent campaigns show men and women openly fighting; and while no one would suggest that these campaigns bear sole responsibility for rising divorce statistics, crimes against women, or the inability of many people to have authentic relationships, a critical examination of the cultural force of these messages does suggest a link between the images of women in advertisements and society's attitudes and behavior toward women in general.

**CAVINA, KRISTAN**

SUNDAY 3:15; NICH 173

*Instructor of English and ESL, Fullerton College*

**Teaching Critical Thinking in the Writing Class** LANG, COLL

In this workshop, the presenter will demonstrate a method of writing instruction based on the principles of critical thinking. Students, through this method, learn to limit a topic and focus on a controlling idea. They organize their ideas logically, experimenting with levels of support, distinguishing generalizations from details, and eliminating non-relevant information. They examine the variety of meanings achieved through the use of transitions and sentence combining. The relevance of point of view, purpose, and audience in the writing process is studied. The function of

grammar in the expression of meaning is examined. Writing is analyzed for various possible interpretations. Students, working by this method, come to see a composition as an orderly exposition of a clearly defined thesis.

**CHAFFEE, JOHN** **SUNDAY 3:15; IVES 119**  
*Director, Center for Critical Thinking and Language Learning, LaGuardia College*

**Teaching and Evaluating Critical Thinking in the Disciplines** COLL, MID/HIGH

This interactive session will present a comprehensive model for teaching and evaluating critical thinking in a variety of disciplines. Workshop participants will explore practical strategies for fostering critical thinking; assess the level of critical thinking evidenced in sample curricular materials; and engage in critical thinking activities that can be applied to teaching their courses. The workshop will also explore an interdisciplinary critical thinking program which involves 30 faculty and 900 students annually. The program, originated in 1979, integrate an independent *Critical Thinking* course with an initiative for infusing critical thinking across the disciplines through faculty development and curriculum redesign.

**CHAFFEE, JOHN** **MONDAY 8:45; IVES 119**  
*Director, Center for Critical Thinking and Language Learning, LaGuardia College*

**Designing an Effective Course in Critical Thinking** COLL, MID/HIGH

Teaching an effective course in critical thinking is an aspiring journey of unanticipated challenges and unexpected triumphs. The prospect of expanding students' thinking implies redefining who they are as human beings, a transformational process that is education at its best. This interactive session will address every phase of designing and teaching a successful critical thinking course: topical content, structural organization, teaching strategies, student activities, and evaluation. Workshop participants will engage in sample activities drawn from several units of the LaGuardia *Critical Thinking* course, and will analyze excerpts of a provocative critical thinking videotape, *Thinking Towards Decisions*.

**CHAFFEE, JOHN** **MONDAY 3:15; IVES 119**  
*Director, Center for Critical Thinking and Language Learning, LaGuardia College*

**SANDRA DICKINSON**  
*Chairman, Department of Linguistics and Speech Communication, LaGuardia College*

**Critical Literacy and Critical Thinking: Partners in Education** LANG, COLL, MID/HIGH

The development of sophisticated thinking abilities is closely tied to the development of complex language abilities, a relationship captured in Lev Vygotsky's comment, "A thought may be compared to a cloud shedding a shower of words." Participants in this workshop will explore a conceptual model for understanding the intimate connections between thought and language and will engage in a variety of activities designed to foster effective

critical thinking and language abilities. This integrated approach to language and thinking forms the basis of an interdisciplinary LaGuardia program in which students enrolled in a *Critical Thinking* course linked to writing, reading and oral communication courses have consistently demonstrated impressive gains in both language skills and thinking abilities.

**CHAFFEE, JOHN** **TUESDAY 8:45; IVES 119**  
*Director, Center for Critical Thinking and Language Learning, LaGuardia College*

**Critical and Creative Problem Solving** G

Solving challenging problems effectively involves an integrated set of critical and creative thinking abilities. This workshop will introduce a versatile approach useful for analyzing complex problems in an organized and creative fashion. Individually and in groups participants will work through a sequence of diverse problems that will allow them to critically reflect on and discuss the problem solving process. They will also explore ways of incorporating problem solving approaches into the courses that they teach at every educational level.

**CHAMBERLAIN, HARRIET** **TUESDAY 1:30; STEV 3046**  
*Educational Consultant, Thinking Possibilities*

**Critical Thinking: Catalyst for "Fairminded" Change** H CON, PSYCH, BUS

Most people agree that change in education, health care, and in our current economic, social and political policies is necessary. However, in the process of bringing about desired change, there is natural opposition that we are forced to confront in others — and even in ourselves. In addition, all of us must often deal with changes that are unsought, and sometimes beyond our control, both at home and in our work. In short, change is inevitable.

This discussion will focus on three aspects of change: presentation of evidence from various domains acknowledging the need for change; the natural physiological and psychological resistance to change; application of principles and practices of "fairminded" critical thinking as catalytic agents for facilitating desired, and/or necessary valued change.

A variety of approaches will be introduced that can be used by all persons interested in applying critical thinking in the "strong sense" to facilitate change at home, at work, and in the causes they serve.

**CHEATWOOD, DIANE D.** **SUNDAY 3:15; STEV 2065**  
*Faculty Development Specialist, Community College of Aurora*

**Thinking Across the College: The Integrated Thinking Skills (Faculty) Project Expands** HIGH, COLL, STAFF DEV

Faculty success with the Community-College of Aurora's Integrated Thinking Skills Project (ITSP), combined with an institutional philosophy of a community of learners supporting both personal and professional growth,

enabled staff for the first time to join faculty in a year-long project with outstanding results.

Thinking Across the College, modeled after the ITSP, included workshops in which participants practiced proceduralizing, problem solving, decision making, and mapping and determined how to apply these skills in their work or class situations. Interdisciplinary teams also collaborated on content/process objectives, designed evaluative strategies, and implemented peer coaching.

Participants in this workshop will 1) analyze how this format could be adapted at their schools, 2) try a workshop activity which has helped students and staff use thinking skills, and 3) develop transfer applications for thinking skills in their courses.

**CHEYNE, PATRICIA B.**

*Instructor of Art, Colorado State University*

**TUESDAY 3:15; NICH 166**

**Global Awareness Through Aesthetic Education** MUL-CULT, K-12, SOC STUD, ART

To enhance our ability to think critically about other cultures, we must begin to understand how different peoples process the world. Aesthetic education enables the learner, in a tangible way, to begin to understand peoples in other parts of the globe. This workshop will begin with a brief presentation about the use of aesthetic education as an important tool to increase the understanding of a global perspective and to enhance the learner's sensitivity to cultures and environments other than his or her own. After this presentation, the workshop participants will have an opportunity to experience what it is like to be a part of a different culture by creating a work of art based on another culture's aesthetic. Finally, participants will gather together to exchange ideas and discuss, in a critical way, the experience of working within a different cultural context. No previous artistic experience is required for this workshop. Both the "artistic" and the "untalented" will benefit greatly.

**COHEN, ARTHUR**

*President, Target Consultants International*

**TUESDAY 3:15; STEV 3046**

**"Become Streetwise!" A Women's Guide to Personal Safety** G, H CON

The "Become Streetwise" workshop begins with a member of the audience participating in a street confrontation. The group will learn to analyze the options of the "mark" or "target" and that of the criminal. The visual program uses a variety of slides i.e. news headlines, street pictures, cartoons, etc., and audience interaction. The program will cover rape and other crimes against women. A Color Coded System of alertness will be presented. A variety of additional solutions will be presented including use of body language, mental alertness and passive resistance. Audience involvement is stressed throughout the program. The program attempts to motivate people to take action and promote crime and rape prevention education in their schools and community.

**COLLISON, GEORGE**

*Assistant Professor of Math/Science Education, University of Massachusetts, Dartmouth*

**SUNDAY 3:15; STEV 1040**

**Visiting the Rainforest Via Computer Simulation and Linking up for Awareness of Global Problems** MID/HIGH, ENV, COMPUTER ASST ED

Two new exploratory simulations, *A Field Trip to the Rainforest* and *Eco-Rainforest* offer children environments to visit and learn about these fascinating biomes. Kids explore at their own pace with well planned lesson guides. Topics in both science and mathematics are included in these activities. *Save the Planet* and *Eco-notes* offer educators another source of information and hands-on activities for students to learn about earth's fragile ecosystems. Students navigate through a hypercard interface to find information about environmental issues as well as up to date voting records and addresses of all Senators and Representatives. A word processor linked to the database is included. Mac and MS/DOS.

**COLLISON, GEORGE**

*Assistant Professor of Math/Science Education, University of Massachusetts, Dartmouth*

**TUESDAY 1:30; STEV 1040**

**Project BioQUEST: New Tools for Critical Thinking and Constructionist Pedagogy in Life Science Education** G, SCI, ENV, COMPUTER ASST ED

Funded by the Annenberg Foundation and PBS, the BioQUEST Project under John Jungck of Beloit College offers educators new and very exciting software with which to explore concepts in the life sciences. This hands-on workshop focuses on new ways to incorporate critical thinking in life science education using computer simulations in ecology and physiology. Featured will be sample student centered explorations using John Jungck's "3-P's", Problem Posing, Problem Solving, and Persuasion. We will view Environmental Decision Maker, and the *Cardiovascular Construction Kit* from among the dozen programs in the BioQUEST series. BioQUEST is available on CD ROM from the University of Maryland in Mac and Mac formats. [MS/DOS in prep]

**COLLISON, JUDITH**

*Instructor, Teacher Education, Marist College*

**MONDAY 8:45; DAR 122**

**Overcoming Math Anxiety of Elementary School Teachers** MATH, ELEM, TEST

Self-esteem of students is very closely correlated with ability to do well in math and science. A large percent of elementary school teachers are victims of math anxiety. Unless these teachers come to enjoy and understand the concepts, the value and the beauty of mathematics, they will pass on these negative attitudes to their students. The NCTM (National Council of Teachers of Mathematics) *Standards for Curriculum and Evaluation*, and *Professional Standards* provide excellent guidelines for improving math education. This presentation explores ways the *Standards* can be used in teacher education programs to help overcome math anxiety in future teachers.

**COLLISON, JUDITH**

*Instructor, Teacher Education, Marist College*

TUESDAY 1:30; STEV 3049

**Multiple Perspectives in Curriculum Development for Teacher Education**

ELEM, MUL-CULT

Educational reform depends on the classroom teachers. If critical thinking is to be an integral part of the curriculum at all levels and in all disciplines, it has to be a major component of teacher education programs. Constructivist approach to learning requires a constructivist approach to curriculum development. Curriculum development in general, and lesson planning in particular, must integrate teaching techniques, learning theory, and the requirements of specific disciplines. In this session we will discuss how to teach curriculum development and lesson planning to include multiple points of view, multi-embodiment of ideas, consideration of multiple intelligences or learning styles, authentic assessment, multi-cultural issues, and equity in the classroom.

**COODLEY, LAUREN**

*Professor of Psychology, Napa Valley College*

TUESDAY 12:15; STEV 3028

**Psychology as a Critical Thinking Requirement: How to Do it** PSYCH, COLL

I will present the psychology course which I developed to meet the Critical Thinking requirement for CSU transfer from the community college system. Several years ago, I began researching how many, if any, psychology courses addressed critical thinking and I found no more than five. I developed my course, "Learning and Problem-Solving" (Psychology 100) specifically to address this need.

I would like to share both the course outline and the texts I have chosen to use. I will describe the skills developed by the course, and how it places critical thinking within the domain of psychology. In the workshop, we will do some activities done in the class, such as working with left and right hemispheres and the development of logic and spatial skills to address math anxiety. The course also involves a rethinking of students' previous educational experiences and an introduction to "paired thinking" assignments; these will also be demonstrated.

**COOPER, LOWELL**

*Professor of Psychology, California School of Professional Psychology*

WEDNESDAY 10:30; IVES 79

**Using Critical Thought as a Way Out of Negative Relationship Cycles**

PSYCH, H CON

This is a participatory workshop intending to go through a series of self-analytical steps in thinking one's way out of a relationship dilemma. Each participant will be asked to focus on one relationship issue they are currently struggling with. We will then go through a series of questions intending to direct and focus thought from emotional and psychological confinement of a recurrent cycle, to a more open space for creative and critical relationship molding. Each participant will start his or her process with a

definition of the problem. We will then take on questions, such as: what is personally compelling about the confining pattern? What is the personal price of staying in the pattern? What does the open space look like? And, ultimately, how can an individual experiment in a freer space? This workshop is a guided thought exercise involving a challenge to self-critical, self-analytic abilities. Each member will work privately, following their personal process and narrative. We will share questions that arise about the process.

**COTTON, WEBSTER E.**

*Professor of Educational Foundations, California State University, Los Angeles*

MONDAY 8:45; DAR 137

**Thinking, Language, and the Human Project: Re-Discovering the Meaning or Significance of Plato's Allegory of the Cave** PSYCH, SOCIOL, H

RIGHTS, COLL

What is the relationship between thinking, language and the Human Project? This question is explored in a most illuminating way in *Plato's Allegory of the Cave*. The prisoners have "fallen into" a non-reflective way of using their minds which, in effect, keeps them chained in the Cave. It is only as they are willing to question, to be reflective and "do therapy" on their current language-meanings (Wittgenstein) that they can begin the liberating process. It is my contention that the multiple crises we are experiencing in our society are rooted in our "everyday" (non-reflective, non-critical, mechanical) way of thinking. Engaging in a dialogue with the Allegory can open up our understanding of what it means to be *thinking*, to be involved in the *educational process*, to be fulfilling our unique Human Project. In my analysis of the Allegory, I will be drawing primarily on the perspective of Existential Phenomenology. This session will be in the seminar format, with an initial 20-25 minute presentation.

**D'ANGELO, EDWARD**

*Professor of Philosophy, University of Bridgeport*

MONDAY 8:45; STEV 1002

**Critical Thinking in Law** COLL, HIGH, H RIGHTS, H CON

A presentation of various critical thinking skills and their application to legal cases. An analysis will be made of the arguments used by the U.S. Supreme Court to justify certain decisions. The cases presented will be geared toward the interests of secondary school and college students (abortion, pornography, compulsory male draft registration). A participatory workshop will enable attendants to use critical thinking in the analysis of *Baby M* (surrogate motherhood) and *Bowers v. Hardwick* (sodomy).

**DADDOW, KIRK G.**

*Director of Extended Learning, Ames High School*

WEDNESDAY 8:45; NICH 173

**Teaching Critical Thinking in the Advanced Writing Course** LANG, MID/HIGH, SOC STUD

While all composition teachers actively seek the well written piece which shows evidence of higher order thinking, many times our courses seem almost to discourage this type of thought. This presentation will focus on

strategies which can be utilized to enhance thinking skills in narrative, descriptive, and the various types of expository writing commonly assigned in the public schools. A variety of handouts will be distributed and the focus will definitely be on practical methods which can be employed on a day-to-day basis.

**DALAL, MEENAKSHI (MEENA)** MONDAY 3:15; STEV 3046  
Associate Professor of Economics, Wayne State College

**Economic Reality and Human Conflict** ECON, CONF THEME

A fundamental economic problem for any nation on earth is scarcity of resources. As we approach the 21<sup>st</sup> century, economic problems will have international dimension. In this day and age of global economy, markets are broadened by trade, movement of capital from developing countries, and formation of free trade zones. Economic problems in a global economy will not be confined to national boundaries. Simple economic tools will be used to explain the problems of scarcity, choice and trade off, and how a free market system resolves the problem of scarcity.

The main objective of this paper is to show how the economic system is linked to human conflict of a global scale. Handouts will be given so that the participants can use them in their classroom teaching to improve critical thinking. The education system as well as the market is a part of the bigger framework of the society. In this session a new way of thinking will be proposed. Participants will be challenged to think beyond national interest to establish peace and prosperity in the world in the 21<sup>st</sup> century.

**DAMER, T. EDWARD** SUNDAY 3:15; STEV 3040  
Professor of Philosophy, Emory and Henry College

**A Positive Approach to the Teaching of the Fallacies: A Simple Method for Distinguishing "Good" Arguments from "Bad" Ones** G, ADV

This workshop will demonstrate how a basic understanding of the nature of a fallacy can provide a simple and effective means of evaluating the quality of an argument. A fallacy is defined by the workshop leader as a violation of one of the four criteria of a good argument. A handout of common fallacies (violations committed so frequently that they even have their own names) from the workshop leader's *Attacking Faulty Reasoning* will be distributed to workshop participants. Sample arguments that deal with current social, business, and economic issues will be evaluated as a part of the workshop. Participants are encouraged to bring their own arguments (preferably written) for this purpose.

**DAMER, T. EDWARD** MONDAY 10:30; STEV 3040  
Professor of Philosophy, Emory and Henry College

**How to Construct Effective Moral Arguments** G, ADV

It is primarily moral issues that engage our most serious intellectual attention. Yet many critical thinking courses give little focus to the peculiar char-

acter of moral arguments and the part that they play in persuading us toward moral commitment or action. This workshop will suggest a model for constructing persuasive moral arguments, with particular attention given to the task of formulating clear moral premises. Participants will construct and share their own moral arguments that deal directly with the social and economic issues that disturb and divide us.

**DAMER, T. EDWARD** TUESDAY 10:30; STEV 3008  
Professor of Philosophy, Emory and Henry College

**A Code of Conduct for a Critically Thinking Citizenry: A Proposed Method for Effective Resolution of Conflicts** G, H CON

Much of the focus in the critical thinking movement has been on the construction and evaluation of arguments and on pedagogical techniques. This session, however, will focus upon the rules of intellectual behavior that a concerned citizenry might be reasonably expected to follow in a healthy discussion of divisive issues. The suggested code of conduct can be construed as both normative and descriptive in character. In so far as a spirit of fair-mindedness demands of all participants in rational discussions a commitment to the same minimal standards of intellectual behavior, these rules clearly take on an ethical or normative dimension. However, the rules also come close to describing our actual behavior in those discussions which we regard as having been the most successful in resolving conflicts. Part of the workshop will be devoted to demonstrating the effectiveness of the method by attempting to "resolve" a social or ideological conflict found between workshop participants.

**DANIELS, LEROI** WEDNESDAY 10:30; IVES 35  
Professor of Social and Educational Studies, University of British Columbia

**SHARON BAILIN**  
Associate Professor of Education, Simon Fraser University

**ROLAND CASE**  
Professor of Social and Educational Studies, University of British Columbia

**JERROLD COOMBS**  
Professor of Social and Educational Studies, University of British Columbia

**Operationalizing Critical Thinking: A Curriculum, Instruction, and Assessment Model (Project OPCRIT)** ADV

The Ministry of Education for British Columbia intends to carry out a province-wide assessment of student abilities and dispositions vis-a-vis critical thinking. The Ministry has commissioned a group to, in the Ministry's words: "Provide an 'operational definition', in plain language, of critical thinking that can be used across all curricula, and at all age levels in the public school system..."

A writing team is drafting a response to this request. In this session we will present and discuss the paper we have written outlining a model which we

believe can accomplish what the Ministry wants. The model is based on the following definition of critical thinking: critical thinking is 1) reflective thinking 2) aimed at making reasoned judgments 3) about what to believe or do. The model views critical thinking as what we do when faced with reflective challenges of different types and enunciates the reflective resources which people draw upon in critical thinking. The paper sketches the model and explains the major implications adopting the model would have for educators.

**DAWSON, KATY** WEDNESDAY 8:45; IVES 35  
*Bilingual Teacher, George Mayne School*

**Five, Six, and Seven Year Olds: Powerful Thinkers Right from the Start!**  
 ELEM, H CON, LANG, MATH, BI-LINGUAL

Change the atmosphere of the primary classroom (kindergarten-second grade) to one where learners tackle projects "too big" for them, learn to value their own problem-solving styles, learn to resolve conflicts and take responsibility for their own actions. Learn how to provoke thinking across the curriculum using everyday situations as problem-solving opportunities in math, in a language arts program that teaches pre-literates how to write by writing, and uses literature (in English and Spanish) to raise important issues: homelessness, gender equity, children and political action, and the human cost of technology replacing human labor. This is a participatory workshop on steps that can be taken to put building children's autonomy at the center of the primary curriculum.

**DE CAPITE, CONNIE** SUNDAY 1:30; STEV 3072  
*Staff Development Program Specialist, Santa Ana Unified Schools*

**Critical Thinking for All Students** LANG, SOC STUD, SCI

In this workshop the audience will work through a unit of study which uses critical thinking strategies to help students master content and become more proficient in reading, writing and discussion while mastering content. This unit was originally prepared and used with both GATE and Chapter I students at Carr Intermediate School. However, the strategies are applicable at any grade level.

**DE LA ROCHE, ELISA** MONDAY 3:15; IVES 35  
*Assistant Professor, Curriculum and Teaching, Montclair State College*

**Drama, Critical Thinking, and Social Issues** DRAMA, H CON, SOC STUD, G

Understanding from a global perspective requires imagination and empathy in addition to knowledge of information. Educational drama can provide an active environment to develop critical thinking on social issues which incorporates the affective and cognitive domains. Role play, simulation, and scene development will be featured in the workshop as a method of exploring contemporary sociopolitical concerns. The "Holistic" and "Exemplary" Stages of teaching and learning will be modeled, and active participation is an integral component. Come and enjoy the experience of dramatic improvisation!

**DEVEREAUX, CONSTANCE** TUESDAY 10:30; DAR 112  
*Executive Director, Institute for Socratic Research*

**WILLIAM G. MUNN**  
*Research Assistant, Center for Politics and Policy*

**Is There a Problem Here? A Policy Analysis of Critical Thinking in California Community Colleges** COMM COLL, STAFF DEV, TEST

The session will present the results of policy research on the design and implementation process of the Title V "critical thinking mandate" as it pertains to the California Community College System. The object of the analysis is the 1986 changes in Title V regulations of the California Education Code. Focus will be on discussion of critical thinking as a tool in "academic excellence," and the process of implementation of the critical thinking requirement as it is stipulated by the Code. Discussion will include assessment of the "success" or "failure" of the policy in its implementation. Handouts will be provided to aid discussion. This session should be of interest to faculty and administrators at any level who are concerned with incorporating critical thinking into course curriculum.

**DIETER, LYNN P., PH.D.** MONDAY 10:30; STEV 3028  
*English Teacher, Maine Township High School East*

**A Model to Teach Ethical Decision Making** MID/HIGH, COLL, H CON, LANG

How can schools help students learn to make fair and just choices in value-centered areas? How do we teach the future chemist not to make designer drugs, the CPA not to hide profits to avoid taxes, and the manufacturing company not to dump toxic waste in the water because it's cheaper? Ethical decision making is a thinking model which begins by equipping the student with a critical thinking process which enables him/her to separate knowledge or truth from falsehood. This process is then applied to ethical dilemmas inherent in every discipline to encourage the student to progress from totally self-centered choices to those which consider the good of the social group as well. The demonstration workshop will teach the model for thinking, its applications to value-laden issues, and assist the teacher in framing questions which lead to discussions of the ethical choices faced by the citizens in a democratic society.

**DIETZ, MARY E.** SUNDAY 12:15; STEV 3036  
*Education Consultant and Founder of Frameworks*

**BOB VAN ZANT**  
*Assistant Principal, Central Union High School*

**Professional Development Portfolio: A Constructivist Approach for Professional Development** K-12, STAFF DEV, TEST, ADV

The professional growth of teachers is critical to the process of positive change in our schools. The *Professional Development Portfolio* provides a framework for designing and measuring the impact of professional development programs while engaging teachers with constructivist teaching prac-

tices. The workshop design uses experience-based learning and inquiry to build knowledge while supporting the process of change, as teachers transfer a reverence for thinking, giving and receiving feedback, and performance based assessments. Participants will have an opportunity to become familiar with the concepts and theoretical underpinnings of the Portfolio, as they experience constructivist teaching practices. After they have built an initial understanding of how these concepts contribute to the Portfolio process, they will begin the process of developing their own Portfolio. A status report from the pilot sites and research projects involving the Portfolio will be shared with the participants.

**DITZHAZY, HELEN E. R.** TUESDAY 1:30; STEV 3077  
*Professor of Educational Leadership, Eastern Michigan University*

**Who Eventually Pays?** MID/HIGH, PSYCH, ECON

In this participatory workshop, attendees will, after a brief overview, write their reactions to seven questions, based on the first of six dilemmas which perennially confront middle, junior and senior high school administrations and staff. Using strands from psychology, philosophy, and Richard Paul's critical thinking and moral reasoning, participants will help to determine whether or not moral education can impact the economy of a local school, the district and the community.

After this introduction, one segment of a soon to be completed research study, which involved students from three southeastern Michigan senior high schools, will be shared. This research uses as references, the work of Kohlberg and his critics, work of the ethicists, work of some of the moral educators and works from critical thinking. Each of these fields of study has a piece, without which, one could not be so definite as to state that the world could be a better place, where money could be spent more wisely, if this particular small dilemma could be resolved.

**DORMAN, WILLIAM A.** SUNDAY 12:15; IVES 119  
*Professor of Journalism/Government, CSU Sacramento*

**RALPH JOHNSON**  
*Professor of Philosophy, University of Windsor*

**Media Logic** MEDIA, MID/HIGH, COLL

The concept of "media logic" implies that the mass media encourage a way of thinking about the world that is at odds with the rules and standards of other forms of logic. Dorman and Johnson will explore the way media logic may be at work, its consequences for the classroom, and the role critical thinking may have to play in helping students recognize and cope with its influence in their lives. The workshop will leave time for others to share their definitions, perspectives, and strategies.

**DORMAN, WILLIAM A.** MONDAY 10:30; STEV 1002  
*Professor of Journalism/Government, CSU Sacramento*

**In Galileo's Garden: Thinking Critically About a Changed and Changing World** PEACE, POL, ECON

There ought to be little doubt that critical thinking is *the* competency for the 21<sup>st</sup> Century. But critical thinking for what? Yearning to once again be above other nations is one thing, while discovering ways to take our place among them is quite another. This presentation will focus on the dangers of an *econocentric* impulse to educational reform, and will suggest that the very first task for critical thinking — and perhaps its most important one — is not to help students become more productive workers but rather to explore the large value questions concerning global cooperation that loom before us. The presentation will consider the four books that serve as a common point of departure for this conference (by Paul, Thurow, Reich, and Heilbroner) together with Paul Kennedy's new work, *Preparing for the Twenty First Century*. I will make certain there is ample time for discussion.

**DORMAN, WILLIAM A.** TUESDAY 10:30; STEV 1002  
*Professor of Journalism/Government, CSU Sacramento*

**Perceptions, Misperceptions, and Damned Nonsense: The News Media and World Affairs** MEDIA, POL, COLL, MID/HIGH

The decisions that most of our students will make about how to view and meet the challenge for the U.S. posed by a new world order, to a considerable degree, will be based on perceptions gained through the news media. This presentation will examine how the American press covers global affairs and consider the forces that shape the news. Emphasis will be on developing in students a critical awareness of the power of representation and an understanding of how the news process can be affected by the subtle and not-so-subtle influences of nationalism, cultural bias, and flawed professional practice. I will describe some of the methods I use in the classroom to get at these issues. There will be plenty of time available for discussion.

**DOWNES, JUDY R.** SUNDAY 3:15; ART 108  
*Assistant Professor, English and Education, University of Tampa*

**A Mini-Workshop in Critical and Creative Thinking** K-12, COLL, LANG

This participatory workshop will be particularly helpful for newcomers to the conference or beginners in the field of critical and creative thinking. An overview of critical and creative thinking concepts and strategies will be given, as well as helpful resources and ideas to explore. Emphasis will be placed on practical, useful applications of critical and creative thinking at a variety of levels. Participants will leave the session with a fuller understanding of the range of ideas they will encounter at the conference and in academic settings.

**EDDY, MACGREGOR**

*Educational Consultant, "MacGregor Eddy Presents..."*

**SUNDAY 3:15; STEV 2049**

**From Novice to Expert in the Era of the Information Overload** HEALTH, COLL

This workshop will explore how nurses develop thinking abilities along Benner's five stages of skill acquisition. In continuing education and staff development, professional nurses move from novice, advanced-beginner, to competent then proficient and finally expert. We live in the age of information overload. The nurse must be able to transfer ideas to new contexts, assess apparent facts, and explore possible consequences. Nursing decisions are made under stressful conditions and require clear, accurate reasoning that is grounded in clinical experience. In this demonstration, complex patient care situations will be used to explore thinking ability in solving problems.

**EDWARDS, JOHN**

*Associate Professor of Education, James Cook University*

**TUESDAY 8:45; IVES 35**

**TIMOTHY MELCHIOR**

*Principal, Memorial Jr. High School*

**The Researcher and the Practitioner** MID/HIGH, STAFF DEV, BUS, G

The establishment of more enlightened relationships between professional groups in the community offers the potential for growth of all involved. Links between the research community, schools, and business have seldom been used for mutual benefit. This workshop will explore the relationships possible through the experiences of a researcher and a headmaster. As well as their particular relationship, the presenters will report on their experiences in interacting with the business world at both theoretical and practical levels. Workshop participants will be involved in generating creative new relational possibilities.

**EDWARDS, JOHN**

*Associate Professor of Education, James Cook University*

**TUESDAY 3:15; IVES 78**

**Action Thinking for Change** BUS, STAFF DEV, G

The creative management of change in schools, companies, and governments is a critical issue that lies ahead. This workshop will introduce a powerful new model of human action and change. The model has been used with great success in both educational and business settings. It has led to the development of action thinking approaches where students or workers learn through their own actions, through tapping into their own personal practical knowledge and their world views, and reflecting on their current practice. The thoughtful individual change that results is deeply rooted and can comfortably generate further growth.

**ELLIS, CAROL M.**

*Assistant Professor of Writing and Literature, University of Redlands*

**TUESDAY 8:45; STEV 3049**

**Critical Thinking as Controversy** FEM, LANG, COLL, MUL-CULT

My presentation is a discussion of the following issues in critical thinking: What is critical thinking? Why should one want to think critically, when

there are so many other ways to think, e.g., creative thinking? Why has critical thinking become such an esteemed way of thinking in academia? Is critical thinking a male-dominated way of thought? A gender determined linear form of thought? Does critical thinking express a political agenda? A closed system devoid of dance? A catchword for the frightened? What does thinking critically accomplish? I intend to involve the audience in active and opinionated responses.

**ENRIGHT, JOHN**

*Professor of Psychology, John F. Kennedy University*

**TUESDAY 8:45; DAR 139**

**Economology: Managing the Earth (and Us) with Wisdom** ENV, ECON, PSYCH

Attempts to manage the Earth (Eco-Nomos) without first Understanding it (Eco-Logos) are failing, resulting in terrible stress to the Earth's bio-systems. In my work and travel throughout the world, I have seen how our separate, fragmented thinking has gotten us into this state of danger. In this presentation I would like to lead the audience in an experiential as well as cognitive critical re-evaluation of some of the very basic — and sacred — concepts that have led us into this crisis: such concepts as Wealth, Free Trade, National and Personal Security, the GNP, and Science.

Why, you might ask, is a psychologist butting into economics? To be too close to a system is to be blind to its paradigms. ("What is this 'Ocean'?" asked the students of the philosopher fish.) While "experts" are needed to study the details within a system, when the fundamental assumptions that support a system are in question, the experts are those who can think critically from a perspective outside the system. In this presentation, we will seek to do just that together.

**EPSTEIN, VIRGINIA B.**

*Associate Professor of Education, Regis College of Regis University*

**TUESDAY 3:15; IVES 45**

**Critical Reading and Popular Culture: Women as Heroes in Film** FEM, K-12, H CON

When examining women's roles in popular films there seems to be little consideration of ethical issues, particularly the ethics of the exploitation of women for economic purposes. The recent emphasis in films on the pathological career woman intent upon brutal murder for the love of another woman's man (the "Fatal Attraction" genre) can be juxtaposed with films in which women are cast as the hero: the ones who move the action rather than act in support of the male hero. In this workshop we will dialogue about the story possibilities in these films. For example, are there ethical positions available for women in these films? Are women still portrayed as crazy? Can they only behave as men? Such films as "Thelma & Louise", "Aliens", and "Fried Green Tomatoes" will be used to raise these and other questions about gender in our culture. Patterns of questions will be suggested to teach the reading of films and other media across grade levels and curricula for ethically responsible interpretations.



**ESFORMES, ROBERT**

*Editor of Inquiry, Montclair State College*

**TUESDAY 10:30; STEV 2083**

**Critical Thinking Journals and Newsletters** MEDIA, LANG, COLL

This session is for the purpose of networking and exchanging information on the production of journals and newsletters in the field of critical thinking. We will talk about the practical concerns of soliciting manuscripts and subscribers, keeping up with the news, publication and editing styles and an assortment of other issues relevant to editors of critical thinking periodicals. We will also consider the possibilities of various kinds of collaboration between different extant journals and newsletters. In addition, we welcome those who are interested in starting a new publication and need basic information and/or encouragement. Participants are asked to bring copies of their publication, ideas and questions.

**FACIONE, NOREEN C.**

*Regents Fellow Nurse Researcher, Physiological Nursing, University of California, San Francisco*

**MONDAY 8:45; STEV 3036**

**CAROL A. SANCHEZ**

*Professor of Psychology, University of California, Riverside*

**PETER FACIONE**

*Dean, College of Arts and Sciences, Santa Clara University*

**Gender and Critical Thinking — A Look at the Data** FEM, PSYCH, COLL, ADV

Although women and men might be equally capable of critical thinking and equally disposed toward using critical thinking, are there differences between the genders regarding specific critical thinking dispositions or abilities? This presentation will examine the results of three separate research studies using the California Critical Thinking Skills and Dispositions instruments to explore possible gender differences in critical thinking skills and dispositions in college students. The three studies address 1) possible differences in critical thinking skills by gender, possible correlations with SAT verbal, SAT math, and college GPA; gain scores by gender after one course in critical thinking 2) common profiles by gender on critical thinking dispositions, and 3) possible correlations between critical thinking skills and dispositions by gender. Participants in this presentation will interpret these new data and suggest their implications for educational policy and pedagogical strategies.

**FACIONE, NOREEN C.**

*Regents Fellow Nurse Researcher, Physiological Nursing, University of California, San Francisco*

**TUESDAY 8:45; STEV 2049**

**CAROL A. SANCHEZ**

*Professor of Psychology, University of California, Riverside*

**Critical Thinking Research and the Health Professions** HEALTH, PSYCH, TEST, ADV

New research illuminates the strong theoretical connections between critical thinking skills and dispositions and successful practice in the health care

professions. This presentation will outline several of these research findings: 1) descriptions of how critical thinking dispositions might impact professional practice; 2) an empirical study of the convergent validity between critical thinking dispositions and a number of key psychological indicators associated with mental health and divergent validity with personality disorder measures; 3) empirical data describing the most common critical thinking dispositional profiles; and 4) correlational studies relating critical thinking dispositions and critical thinking skills. These studies suggest fruitful avenues for future research regarding the relationship between critical thinking and successful job performance in the health professions. They also have important implications for curriculum development in programs designed to prepare health professionals.

**FACIONE, PETER**

*Dean, College of Arts and Sciences, Santa Clara University*

**SUNDAY 12:15 ; STEV 2049**

**NOREEN C. FACIONE**

*Regents Fellow Nurse Researcher, Physiological Nursing, University of California, San Francisco*

**Assuring Critical Thinking in the Professional Nurse: A Response to NLN Criterion 20** HEALTH, TEST, COLL

The nursing profession is among the leaders in demanding critical thinking ability in its developing professionals. This interactive and collaborative presentation will employ critical thinking pedagogy to achieve its two outcomes: a) that the participants will encounter a robust, theory-based, critical thinking construct capable of guiding the integration of critical thinking skills and dispositions into the curriculum of nursing preparation, and b) that the participants will outline a multi-modal program assessment plan by which they can generate sophisticated and meaningful baseline and longitudinal data regarding the students' critical thinking development during their nursing education. The result of this session will be an outline on how to integrate critical thinking education and assessment into nursing curriculum that is consistent with the vision of the professional nurse and rigorous enough to support the development of the advanced nursing professional.

**FACIONE, PETER**

*Dean, College of Arts and Sciences, Santa Clara University*

**SUNDAY 3:15; DAR 137**

**Classroom Critical Thinking Assessment — The Basic Ways and Means** TEST, SOC STUD, COLL, MID/HIGH

This session describes the fundamentals of classroom level assessment of students' critical thinking skills and dispositions. Our chief focus here will be on grass-roots assessment projects which are designed and carried out by individual faculty and teachers. However, the basic ways and means of assessment described here have application at the larger scale levels of program and institutional assessment as well. All who are new to assessment are most welcome. We will start with the basics, like identifying a robust,

clear, and operational concept of critical thinking. Then we will identify and critique specific examples of classroom assessment strategies (such as projects, self-reports, performance observations, essay tests, and multiple-choice tests). We will examine a variety of commercial critical thinking assessment instruments such as the Watson-Glaser, Ennis-Weir, Cornell X, Cornell Z, California Critical Thinking Skills Test, and the California Critical Thinking Dispositions Inventory. And, we will have fun experimenting with novel classroom assessment strategies such as team testing.

**FACIONE, PETER** **MONDAY 3:15; NICH 173**  
*Dean, College of Arts and Sciences, Santa Clara University*

**JOANNE GAINEN**  
*Director, Teaching and Learning Center, Santa Clara University*

**Are New College Students Disposed to Think?** LANG, COLL, TEST

Writing and communication teachers at the high school and college levels seek to develop student's CT ability and dispositions. During freshman orientation for the 1992/93 entering college students at Santa Clara University were studied to determine the CT dispositions with which they began college level studies. This study of over 600 students yielded profiles of the dispositional strengths and weakness of these newly graduated high school students who were about to embark upon their college careers. This presentation will describe the seven CT dispositions, or habits of mind, which were surveyed. They include inquisitiveness, cognitive-maturity, analyticity, CT self-confidence, systematicity, truth-seeking, and open-mindedness. Using composite samples of student profiles, participants will be invited to assist in interpreting these samples and drawing out the implications for writing and communication assignments and classroom activities at both the college and high school levels.

**FACIONE, PETER** **TUESDAY 8:45; IVES 78**  
*Dean, College of Arts and Sciences, Santa Clara University*

**Teaching Critical Thinking Using TV Drama** LANG, COLL, MEDIA, MID/HIGH

The development in students of those abilities and dispositions we associate with good critical thinking requires opportunities for guided practice using meaningful and engaging material. For good or for ill, perhaps nothing in popular culture captures the attention and interest of today's learners as completely as does dramatic commercial television. Hence, the careful use of commercial TV materials to teach and reinforce critical thinking should advance the quality of education and cause of rationality in our democracy. This session is an on-site demonstration of the use of such media in the typical college classroom. The participants will be selected randomly from those attending the session. Although we will reflect from time to time on the pedagogical or theoretical dimensions of teaching critical thinking this way, the chief activity of this session will be to illustrate the use of a recently aired clip from a TV drama to teach critical thinking.

**FEARE, JOHN R.** **MONDAY 3:15; STEV 3008**  
*Educational Consultant*

**SANDRA PARKS**  
*Co-Director, The National Center for Teaching Thinking*

**ROBERT SWARTZ**  
*Co-Director, The National Center for Teaching Thinking*

**Critical Thinking and Global Economics Within a Theological Dimension**  
 CONF THEME

For those who live in any industrial society, especially capitalist, the primary preoccupation must be the production, distribution, and consumption of goods and services if that society is to survive.

The argument will be presented that human life exists for a nobler purpose: "helping out the birth throes of creation and the continuation of life ... furthering the life pulse of the universe itself" (E. Becker). This purpose is the ultimate referent against which all human behavior is evaluated. It originates in the creative spirit (or God, life force...), the source of all life and purpose. Implementation of this theological perspective would necessitate the development of a communitarian society dedicated to the protection, unification, and enhancement of life. In any case, the absolutely serious question of the meaning of life must be raised at all levels of education, and that inquiry must be grounded in individual experience informed by soul-searching and rational and empirical criticism i.e., critical thinking.

**FEER, MICHAEL** **SUNDAY 1:30; STEV 3046**  
*Mediator for the Victim Offender Program, Cal State University, Dominguez Hills*

**Decision Making and the World Market-Place** ECON, CONF THEME

The session will focus on a fragmented global economic system, the international agencies most responsible for this system, and the reforms in structure and process which would be helpful in integrating the system. Fractiousness, agencies, and reform will be knit together by consideration of decision-making as a cognitive and social process. It is the contention in this presentation that it is in effective decision-making that world market-place issues can be best addressed. The structure and process of decision-making can be studied and taught and then applied to extant institutions to promote integrative and collaborative economies. The aim will be to present specific and useful decision tools and to apply them to recommendations for education and the economy.

**FERNANDEZ-BALBOA, JUAN MIGUEL** **MONDAY 8:45; DAR 139**  
*Associate Professor of Kinesiology, University of Northern Colorado*

**Educational Reform for Social Transformation and Environmental Renewal** ENV, SOC STUD, CONF THEME

In this paper, I argue that schooling is quite irrelevant to our great environmental and social crises because education, far from being neutral, is affected by powerful economic and political forces with little interest in society and

the environment. Nevertheless, we are at a point in history where the social problems and environmental conditions are reaching alarming proportions which threaten our existence. Hence, my argument is that educational reform must redirect its priorities toward solving and preventing further social and environmental decay. I propose alternative educational solutions related to the content, process, and orientation of schooling. Namely: a) emphasizing curricula centered around human subjects and environmental issues in order to develop social and ecological literacy and action; b) adopting critical pedagogy as a philosophy and praxis of education; and c) designing and implementing instructional programs intended to educate learners as active democratic citizens and social "transformative intellectuals."

**FINOCCHIARO, MAURICE A.** MONDAY 3:15; ART 108  
*Chairman and Distinguished Professor of Philosophy, University of Nevada, Las Vegas*

**Galileo and Critical Thinking** COLL, SCI, H CON, H RIGHTS

Galileo's is well known for his contributions to physics, astronomy, instrumentation, and methodology. Equally well known is his martyrdom in the struggle for freedom of inquiry, due to his persecution by the Inquisition; the "Galileo affair" is instructive partly because it brings us face to face with the importance, the difficulty, and the risks of being a critical thinker in the "strong sense." Less well known is the fact that Galileo was also a critical thinker in the sense of being an explicit practitioner of such micro-skills as argument analysis, evaluation, and construction. I am currently working on an elementary guide to the critical reading, analysis, and evaluation of Galileo's *Dialogue on the Two Chief World Systems*, his mature scientific synthesis which triggered the trial; I plan to use this session to lecture on the background of this project, give a progress report, and try to involve a general audience in that type of critical thinking consisting of the critical reading of a classic scientific text.

**FISHEL, JUDY** TUESDAY 10:30; DAR 122  
*Science Teacher, Bristol High School*

**Benchmarks in Critical Thinking: What Skills at What Age? The Comet Is Coming!** SCI, MATH, K-12

Here is an opportunity to make a real difference. Project 2061 of AAAS has published the first Draft of their "Benchmarks for Science Literacy". One strand in this work includes *Critical Thinking Skills* and the age levels at which they should be mastered. These "Benchmarks" will be used in many schools across the United States to help develop new curricula in Science, Math, and Technology. We will compare their work to Richard Paul's *Dimensions of Critical Thinking* and share ideas about what skills children really can and should master at various ages. If you have used or plan to use critical thinking strategies K-12, please come and share in this effort. (Halley's Comet returns in the year 2061.)

**FITZGERALD, DAVID** WEDNESDAY 10:30; STEV 3030  
*Ph.D Research Student, The Open University*

**Integration of Reflective Thinking into the Curriculum** COLL, PSYCH, BUS, TEST

This research evaluates an educational program taught separately to management studies and psychology degree students in their first year at university. The program deals with engaging the students in critically reflecting upon the course learning activities and epistemological constructs in their studies. The design, implementation and evaluation of the course are carried out by the researcher. In this paper I intend to comment upon emergent themes coming from this program based on reflections as a researcher and practitioner. The paper will comment upon and explore issues that promote or inhibit critical thinking for the student in the classroom. Secondly, it will look at the broader setting beyond the classroom and examine how institutional structures come to inhibit or promote the incorporation of reflective thinking into the curriculum. The paper will comment on the research findings followed by participatory exploration of the above two issues and from this a discussion of the implications for incorporating it into the curriculum.

**FOLEY, JEAN ANN** TUESDAY 10:30; NICH 173  
*Research Associate, School of Education, University of Tulsa*

**Teacher Ethos: A Veil of Perception That Precludes Critical Thinking**

STAFF DEV, ELEM, MATH/SCI

This paper contends that efforts to reform science education in elementary schools have failed because reformers ignore the teacher ethos that drives the teacher in the elementary science classroom. The argument is presented in three steps. First, the elements that build teacher perspective are described and suggestions are made on how teacher ethos may interfere with the teacher's ability to problem solve, analyze, and interpret science education reform initiatives. Next, the dichotomy of the scientific perspective that is rooted in critical thinking and the teacher ethos is discussed and illustrated by research conducted on a teacher enhancement program for elementary teachers for teachers who teach science. The argument concludes with an example of how the teacher ethos that precludes critical thinking has the power to reinterpret reform initiatives.

**FORREST, BARBARA** MONDAY 8:45; STEV 3077  
*Assistant Professor of Philosophy, Southeastern Louisiana University*

**Back to Basics: The Use of Newspapers and Other Print Media to Teach Analytical Reading, Writing, and Reasoning** MEDIA, LANG, G

The workshop will be divided into three segments. The first will begin with a paper which provides a rationale for incorporating the use of newspapers and other print media into the teaching of critical thinking, and recommends combining E.D. Hirsch's emphasis on "accumulating shared sym-

bols and... information" with Richard Paul's emphasis on teaching students "to think critically... about their use of language [and] information" Next, the audience will participate in a "Hirschean Reading Exercise" which demonstrates the importance of information for intelligent reading. The second segment will be spent examining the critical thinking booklet composed of selections from the print media which I compiled for my university critical thinking classes. The audience will be taken through the criteria for choosing editorials, analyzing the arguments they contain, and grading students analyses. The third segment will be devoted to demonstrating a convenient procedure for critiquing editorial arguments once they are identified and reconstructed.

**GAMBRILL, EILEEN** MONDAY 1:30; DAR 112  
*Professor, Social Welfare, University of California at Berkeley*

**Behavioral Analysis: A Complement to Thinking Critically About Global Problems** ENV, PSYCH, COLL

Global planning involves the behavior of individuals. Drawing on what is known about how behavior is influenced by the environment (how it is "selected") helps us think critically about global planning. Without this knowledge, recommendations about how to resolve problems may violate what we know about how behavior is influenced by the environment. Behavioral analysis involves the systematic exploration of variables that influence behavior within a scientific model of inquiry. This has yielded information about the disadvantages of relying on coercive methods (use of punishment to influence behavior) as well as a wide range of successful applications to outcomes of social concern including participation of citizens on community boards, energy use, and finding jobs. This workshop will introduce participants to this area of knowledge and describe the relationship of behavioral analysis to thinking critically about global planning. A bibliography of related readings will be provided and practice exercises will be used.

**GAVENTA, HARRY** TUESDAY 8:45; STEV 3036  
*Associate Professor of Curriculum and Instruction, McNeese State University, Ryan Street*

**Reconstruction of Classroom Climates: Operations in Skepticism and Scrutiny** COLL, MID/HIGH, SOC STUD

In a workshop format, the audience and the presenter will examine classroom climates that condition the roles of teachers and students, with particular attention to radical reduction of four principal obstructions to critical thinking. Analysis of vital control factors, symbolically represented in handouts for the audience, will be conducted through critical thinking processes in which group consensus and independent thought will be used as variables. Keys to the four major "road blocks" are: 1) The Arno Bellack study, *The Language in the Classroom*, 2) The bandwagon syndrome in school

reform, 3) Convergence commitment, and 4) Evangelical zeal for products and performance, incidental attention to process. Role reversals for teachers and students and how such roles can impact on critical thinking experiences will be given special focus. Handouts, providing for periodic reaction by participants, will be distributed.

**GEIGER, JAMES** SUNDAY 3:15; DAR 112  
*Attorney-at-Law, Adjunct, Lynn University*

**Toward a Philosophy of Critical Thinking** H CON, POL

This paper suggests reconstructive surgery for the global village as it struggles to restructure its thinking for the changing realities of the twenty-first century. The problem is compounded by the "destruction" of traditional values and the "deconstruction" of modern values, but nothing has filled the resulting "value vacuum." The proposal is a "general theory of value" that produces a radical reconstruction for other theories regarding the nature of value. It affirms the existence of standards, but reinterprets them in the context of a changing frame of reference. Absolute systems and dogmatic ideologies are destabilized, providing an opening for a new kind of thinking. Uniformity/non-uniformity provide an inclusive *communications model* which complements the changing frame of reference. Finally, the proposal is *value-based*. Acknowledging pluralism, it provides a prototype for intellectual standards which eliminates the specter of relativism.

**GIBSON, CRAIG** MONDAY 1:30; NICH 304  
*Head of Library User Education, Washington State University*

**Critical Thinking in the Research Process** LIBRARY SCIENCE, G, SOC STUD

This workshop will illustrate the application of critical thinking principles to the library research process. Preliminary discussion by the presenter focuses on constraints against critical thinking in the electronic information environment as well as in the traditional "print environment." Critical thinking principles are applied to a model of the research process in four stages: considering the nature of the information problem; developing search strategies; evaluating sources; and examining one's own research processes. These critical thinking principles are developed by participants in discussion groups, using scenarios of typical student research problems.

**GILBERT, ROBERT N.** MONDAY 12:15; STEV 3030  
*Instructor of Social Sciences, Palatine High School*

**Doing Survey Research in the Intro Social Science Course: Putting Science Back into Social Science, an Example of Critical Thinking** soc STUD, HIGH

The *Doing Survey Research* participatory workshop will enable participants to put science back into social science. *Doing Survey Research* actively engages students in developing a social science hypothesis, a survey to test it, an

easy logical way to organize and analyze data, and an easy logical format for written presentation. This is a unit students do not forget: ten years later, students can recall their hypothesis! *Doing Survey Research* teaches students to 1) survey the background literature, 2) develop a social science hypothesis using the *if* (there is a cause), *then* (there is an effect) format. 3) develop a survey to test it, 4) administer the survey, 5) organize the data into tables using cross tabulation, a simple but logical format for organizing data, 6) analyze the tables in terms of cause and effect to determine the level of support for the hypothesis, and 7) write up the results: Abstract, Introduction, Method, Results, Discussion, References.

**GIULIANO, JACKIE A.** SUNDAY 12:15; ART 108  
*Adjunct Professor of Environmental Studies, Antioch University*

**The Introduction of Feminist Philosophy and Spirituality into the Classroom Through Environmental Studies** FEM, ENV, COLL, MATH/SCI

In this workshop we will examine the justification for and methods of remodeling a curriculum to include elements of thought, inter-disciplinarity, and social relevance. Using Environmental Studies as an example, it will be shown how a curriculum that focuses on science, technology, and other "linear" fields can be remodeled to include inter-disciplinarity and ties to feminist thought and spirituality in a social context. Participants will explore how they could remodel their own curriculum along the lines discussed, and share experiences in developing strategies for infusing feminist philosophies and spirituality into the classroom.

**GIULIANO, JACKIE A.** MONDAY 8:45; ART 108  
*Adjunct Professor of Environmental Studies, Antioch University*

**The Development of Social Responsibility and Environmental Awareness Through Techniques in Critical Teaching — A Community Involvement Approach** ENV, TEST, MATH/SCI, SOC STUD

This workshop will present an approach to student involvement that focuses on action-oriented projects that involve the student in current issues before the community. Participants in the session will be asked to develop an action-oriented project of their own, thus identifying with the process and excitement experienced by the student. Techniques will be shared to help the instructors to develop the framework for the course project and to help explore techniques for the implementation of this approach in the classroom. The discussion will include presentation of a variety of ways to develop intellectual standards, hold students accountable when traditional testing techniques are not used, and use the action-oriented project as a means to develop intellectual standards for thinking and self assessment.

**GIULIANO, JACKIE A.** MONDAY 3:15; STEV 3049  
*Adjunct Professor of Environmental Studies, Antioch University*

**Critical Textbook Selection — A Fundamental Prerequisite for Teaching: Watching Out for Subtle Gender Bias** FEM, COLL, TEST, SOCIOL

In this session, we will discuss the significance of establishing critical textbook selection criteria and the importance that each criterion plays in teaching critically. Participants will be asked to speculate on how they would "remodel" their current textbook according to the criteria presented. In this workshop, participants will share their own criteria for textbook selection and go away with a set of selection methods that can be applied to any field.

**GIULIANO, JACKIE A.** TUESDAY 8:45; ART 108  
*Adjunct Professor of Environmental Studies, Antioch University*

**Gender and Science: The Impact of the Absence of a Feminist Voice — Putting the Human Spirit Back into Science Education** FEM, MATH/SCI, SOC/STUD, ENV

In this workshop, we will examine the question of whether or not successful women scientists have developed approaches and theories different from those used by traditional male scientists and the importance of developing and using inclusionary theories and methods to involve more women in science. We will discuss the deep ties between science and war-making, and how science has become a business and a tool for proliferating the Western notion of power and control throughout the world. Using the experiences of the group as a focus for the discussion, we will examine the questions that are posed by Evelyn Fox Keeler in her book, *Reflections on Gender and Science*. She asks: How much of the nature of science is bound up with the idea of masculinity, and what would it mean for science if it were otherwise? What might it mean to call one aspect of human experience male and another female? How do such labels affect the ways in which we structure our experiential world? The author is exploring these questions in his doctoral program.

**GLAUBINGER, DAVID** MONDAY 1:30; STEV 3028  
*Instructor of Disaster Services, American Red Cross, Bay Area*

**Don't Worry! We'll Teach You Everything You'll Need to Know** ADULT EDUCATION

The Critical Thinking method of instruction is extremely useful in adult education in the non-academic setting, especially in situations with time constraints and single session settings. In this workshop we will engage in learning a new concept as a way of demonstrating that the Critical Thinking method draws out "native intelligence" as well as instills self-confidence in the learner. The first portion of a class, "Introduction to Disaster Services," a prerequisite basic training for American Red Cross Disaster Services (ARCDs) volunteers, will be presented. Participants will then share and eval-

uate their experience in learning "foreign" concepts and using the Critical Thinking methodology.

In ARCDs, it is important to develop confidence and self-esteem in the volunteers because they are asked to perform in chaotic and stressful situations. There is limited time for training and a large amount of information must be presented. Using the questioning technique and group discussion, a mode of thinking is developed so the volunteers can act independently and knowledgeably with minimal supervision.

**GLOCK, NANCY C.** SUNDAY 3:15; STEV 3072  
*Specialist in Transfer & General Education, California Community Colleges*

**Towards a More Powerful Model of Critical Thinking: Reclaiming Inter-Cultural Ways of Knowing** MUL-CULT, H CON, ADV

Embedded in human interaction, critical thinking is an extension of our caring for one another, useful primarily for *a)* building mutual understanding and often consensus and *b)* testing the merits of an emerging consensus against the risks and constraints of empirical reality. Neither victory in argumentation nor critique of practical judgment adequately encompasses all of these functions.

Albeit time-honored and fruitful, logic with its syllogisms and fallacies is but one of a number of structures we "lay over" the fluidity of discourse to uncover relationships and test their soundness and utility. Inter-culturalism suggests other such structures, allowing the methods and structures of visual, practical, feminine, tribal, and spiritual ways of knowing to inform this human discourse. A model of critical thinking that *systematically* incorporates these complementary structures is rendered thereby both more powerful and more fulfilling.

**GOTTESMAN, LES** SUNDAY 12:15; NICH 204  
*Assistant Professor of English and Communications, Golden Gate University*

**Asking Dumb Questions** c

Have you ever heard, or yourself said, "There's no such thing as a dumb question"? Wrong! There are lots of dumb questions: they're the one that have already been answered to everyone's "satisfaction". Rather than insisting our students ask the "right" questions (i.e., the ones that satisfy us), perhaps they should be asking more dumb ones. In this vein, I have some ideas and exercises to share.

**GOTTESMAN, LES** TUESDAY 1:30; CAR 68  
*Assistant Professor of English and Communications, Golden Gate University*

**Toon Logic** c

Back by popular demand: cartoons that demonstrate everything you need to know to think critically, deductively, inductively, hypothetically, non-falaciously, morally, and even post-modernistically!

**GRAVES, BILL** TUESDAY 10:30; NICH 166  
*Lecturer of Philosophy, Sonoma State University*

**The Reader, the Participant, the Social Order, and the Subversion of Critical Thinking: Teaching Shirley Jackson's "The Lottery" for Real** PSYCH, PEACE, LANG, H CON

Shirley Jackson's "The Lottery" is a study of the (personal and social) collapse of critical thinking. The story, laden with clues to its own conclusion, presents a smorgasbord of fallacies, positionings, and self-deceptions — both announced and demonstrated — by its characters. Yet, for most of us, our initial reading of the story failed — until extraordinarily late, and, for some, completely — to prepare us for the story's conclusion.

Why these peculiar lapses in clear thinking? Among the secrets of this story is the fact that, in important ways, the reactions of readers parallel the reactions of the story's characters. Part of "The Lottery's" significance is that the very reactions which lead us, as readers, to miss what is really taking place would likely lead us to participate in the lottery much like the story's characters do.

Using group exercises, we will discuss the story and critical thinking issues it suggests. We will practice reading, interpreting, and discussing with analytic care; reasoning to likely consequences; discovering and resisting the tendency to self-deception; and relating what we discover to our own experience.

**HALES, SUSAN** TUESDAY 1:30; SUMPR  
*Associate Professor of Psychology, Saybrook Institute*

**Uncovering the Connections Among Self-Esteem, Critical Thinking, Moral Behavior, and Educational Achievement, Part I** K-12, PSYCH

In part I of this two part workshop, theory and research in psychology, sociology, and philosophy are used to show the relationship among critical thinking, self-esteem, moral integrity and educational achievement. Moral integrity (defined as the congruence between one's internalized beliefs about what is right and wrong and one's actual behavior) is shown to be as important to self-esteem as the more commonly studied components of competence and achievement. Critical thinking is shown to be crucial for self-esteem because it largely determines the degree of our achievements in both the competence and moral domains of self-esteem; it allows autonomous, rational self-evaluation; and it is the mechanism through which individuals can change themselves, their lives, and thus their self-esteem. Understanding why and how critical thinking is an effective treatment intervention for low self-esteem will assist teachers in motivating their students to learn.

**HALES, SUSAN**

*Associate Professor of Psychology, Saybrook Institute*

**TUESDAY 3:15; SUMPR**

**Uncovering the Connections Among Self-Esteem, Critical Thinking, Moral Behavior, and Educational Achievement, Part II** K-12, PSYCH

Part II focuses on the development of self-esteem by identifying the early childhood experiences and parental socialization practices associated with self-esteem, competence, moral behavior, and critical thinking skills. Several currently popular self-esteem enhancement strategies are critically examined in terms of whether they are helpful or harmful to the development of self-esteem. Ways to change the feelings of incompetence and unworthiness that develop within a dysfunctional family environment are described. Knowledge of the nature and dynamics of self-esteem covered in part I is necessary for the understanding and successful application of the interventions covered in part II.

**HALL, PETER**

*Manager, Pace Training*

**WEDNESDAY 8:45; STEV 3036**

**Traps and Tools** C, BUS

When you choose to add critical thinking to your thinking process you introduce it into a mental environment created by a lifelong experience of using conventional or "coping" thinking. This long use has formed patterns operating below awareness threshold which serve as traps to effective critical thinking. This workshop, first through lecture/demo and then, primarily, through hands-on "Problem Solving", using cut-outs, displays the nature of the traps and pitfalls. The student having experienced the traps can then be helped to generate the questions to ask (the Tools) to avoid the traps in the future. The simple physical/mental processes employed in this workshop can be used over a wide age range. The group activity and participative "game" nature of the "problem solving" result in a high level of commitment by most students.

**HALL, RICHARD S., PH.D**

*Manager of Research and Development, Dale Carnegie and Associates, Inc.*

**SUNDAY 12:15; STEV 3026**

**The Impact of Critical Thinking on Corporate Training** BUS

Much of corporate training in the U.S. (and the world) is conducted at the didactic stage of teaching, using the university model that requires little more than passive learning from the trainees. This session will explore, in a workshop environment, current practice, identify some exceptions, and then generate solutions that may help participants better incorporate critical thinking precepts into their training and development programs.

**HALUZA, HERMAN**

*English Instructor, Ohlone College*

**SUNDAY 1:30; STEV 3077**

**Critical Thinking, the Narrative, and the Post-Modern Condition** COLL, H CON, LANG, SOC STUD

Many academicians have labeled our times as postmodern, an antithetical reaction to the so-called modernistic era. The purpose of this session will be

to examine these concepts in order to come to a better understanding of critical thinking in this so-called postmodern world. More-so, how (what?) does it mean to think in this postmodern condition? Is meaning necessary for thinking? Do we need a narrative for a critical thinking base? Has the narrative erased itself? Through the reading of a paper on this subject and discussion thereafter, we will hopefully attempt to answer some of these questions. The relevance of all this will be to make us better teachers of critical thinking in a world where many of our students have forgotten the concept of time.

**HANFORD, GEORGE H.**

*President Emeritus, The College Board*

**MONDAY 8:45; STEV 3046**

**How to Save the World: Through Critical Thinking** MUL-CULT, CONF THEME

This session, half didactic and half Socratic, will address the proposition that an education grounded in critical thinking will be needed by tomorrow's adults in their search for solutions to the world's problems ... problems that are ecological, environmental, economic, cultural, and transnational. The first, lecture half will be used to argue that, because those problems are not going to be solved through ignorance and because critical thinking is essential to effective teaching and learning, education infused with critical thinking is today's best rational hope for peace and progress on the planet. The second half of the session will be devoted to discussion of whether that assertion is a) reasonable, b) presumptuous, c) simplistic, d) insightful, or e) misguided. Come, join in the discussion, and make your own choices among the adjectives ... or offer your own!

**HARPER, GLEN**

*Principal, C.O. Bastian High School*

**SUNDAY 3:15; STEV 3028**

**Come Think With Me: Assumptions, Backing Up to the Start** H CON, K-12, BEG

The workshop is designed to help novice critical thinkers identify, assess, and utilize their logic processes. This is done by developing their awareness of assumptions in a logic syllogism and then applying the concept to real situations. Since assumptions dictate the outcome of the argument, participants will be guided in analyzing the foundations of some of the major problems in our world. Participants will work in small groups and together. Recognizing that thought requires time, the exercise is designed to expose participants to a method of introducing unbiased thinking skills to a large group in a specified time frame. It is not designed to be a complete exercise, but we will learn about our own biases, assumptions, and thought patterns.

**HARPER, GLEN**

*Principal, C.O. Bastian High School*

**MONDAY 8:45; STEV 3028**

**Come Think With Me: Dealing With Real Problems by Thinking** H CON, K-12, ADV

This session is directed towards experienced teachers or facilitators as well those participants who have attended the previous session entitled "Come

*Think With Me: Assumptions, Backing Up to the Start*™. After a brief review of philosophical shifts (10 Minutes), participants will be guided in analyzing the foundations to some of the major problems in our world. Participants will work in small groups and present their thoughts to the group so we can analyze assumptions, thoughts and arguments. We will look at our present position and defend an opposing viewpoint. Rather than talk about thinking, we will think together!

The exercise is designed to expose participants to a method of introducing unbiased thinking skills to an experienced group in a specified time frame. It is not designed to be a complete exercise, but we will learn about our own biases, assumptions, and thought patterns.

**HATCHER, DONALD**

*Director, Center for Critical Thinking, Baker University*

**MONDAY 8:45; DAR 112**

**Thinking Critically About Public Policy Issues** CONF THEME

Even with a global economy and interdependent multi-national corporations, it is the governments of individual nations that remain the ultimate power. It is individual governments, not multi-national corporations, that set the policies for corporate behavior and technological development, e.g., worker safety regulations, mandatory wage levels, and pollution standards, to name but a few.

If we assume that democratic governments are responsive to the demands of their citizenry, then concerned, well-educated citizens can have a positive impact on what policies their government adapt. Since any policy helps some, while harming others, questions of fairness and the ethics of specific public policies are always present. For citizens to evaluate proposed policies, not only do they need to understand the technological and economic issues involved, but they must understand how to evaluate the ethical ramifications of the proposals. To do this, knowledge of general ethical principles and their application to complicated issues is essential.

**HATCHER, DONALD**

*Director, Center for Critical Thinking, Baker University*

**TUESDAY 3:15; DAR 137**

**Grading the Ennis-Weir Critical Thinking Essay Test** TEST, G

Whether we like it or not, we live in a time when great emphasis is placed on outcomes assessments. Granting and accrediting agencies tell teachers that it is essential that those who claim to teach critical thinking be able to demonstrate the truth of their claims. If we define critical thinking so that it includes being able to read, understand, and evaluative arguments, and articulate and defend one's position, then the Ennis-Weir Critical Thinking Essay Test is an excellent tool for assessing student critical thinking abilities. Unfortunately, because it is an essay test it is not easy to attain grader reliability without some formal training.

This workshop provides instruction and practice in grading the essay exam. For two years, graders at Baker University, including work-study students, have achieved inter-grader reliability of 89% as we use the test to evaluate our two-semester freshmen course that combines instruction in critical thinking and written composition with the study of primary texts.

**HAYES, WILLIAM A.**

*Director, Center for Creative and Critical Thinking, Delta State University*

**WEDNESDAY 8:45; DAR 122**

**Designing Effective Thinking Activities in Science: Principles, Theories, Attitudes, Habits, and Skills** SCI, MID/HIGH, COLL

This is a participatory workshop for high school and college science teachers. Most examples will be drawn relative to college level introductory biology but applications relate directly to all science disciplines at secondary and college levels. I will present a practical approach to the design of lecture and laboratory activities which effectively integrates the principles, theories, and concepts of a particular course with student practice in building scientific attitudes, habits and skills. The approach emphasizes developing materials to teach students to think as scientists by creative discovery and critical application of scientific standards to their thinking. This model encourages the integration of a number of current, practical classroom and laboratory approaches. Background materials will be discussed, examples will be examined and participants will form small interest groups to produce one or more activities. A large packet of materials will be distributed to participants.

**HAYNES, JARED**

*Lecturer, English Department, University of California, Davis*

**TUESDAY 1:30; STEV 2065**

**Cultivating Critical Thinking in Classroom Discussions** COLL

In any classroom, students display a variety of levels of cognitive development and, therefore, different abilities to think critically. Such disparities can mean that some students participate more and get more out of a class discussion than other students, who thereby lose this opportunity for exercising and improving their critical faculties. Small-group discussions that precede full-class discussions can allow more students to participate, but the tasks given to these small groups must be constructed carefully to keep students thinking about the object of discussion and to ensure that several levels of cognitive development are challenged.

This participatory workshop will begin with participants collaborating in model small group discussions. The topic of discussion will focus on an element of the conference theme. The session will end with an examination of the theory underpinning this model of classroom discussion and with suggestions for adapting the model to different courses, class sizes, and topics.



**HEASLIP, PENNY**

*Instructor, University College of the Cariboo*

**MONDAY 10:30; STEV 2049**

**Shifting Paradigms in Education and Health Care Reform: A Nursing Perspective** HEALTH, COLL, CURRICULUM, POL

The realities of competing in a world economy have implications for the reform of national social programs such as health care. Government spending priorities for health and education impact societal views of how the nurse should be educated, what role the nurse should have in a "new" health care delivery system and how curriculum can be designed to meet these challenges given shrinking financial resources. This interactive session critically examines key stakeholders perspectives on health care delivery and the education of nurses. The presentation explores the paradigm shift that has resulted in the development of innovative, collaborative programs and the progress of educational reform in infusing critical thinking and emancipatory learning into nursing curricula. Discussions will focus on how educators can best prepare health practitioners for a restructured health care system through the development of critical thinking and reasoning abilities necessary for the complexities of health care delivery in the 21<sup>st</sup> Century and beyond.

**HEASLIP, PENNY**

*Instructor, University College of the Cariboo*

**TUESDAY 3:15; IVES 76**

**RICHARD W. PAUL**

*Director, Center for Critical Thinking, Center for Critical Thinking and Moral Critique*

**Critical Thinking and Intuition in Nursing Practice** HEALTH, COLL, CURRICULUM, POL, VIDEO

In this paper, we analyze how critical thinking and intuitive practice are related to expertise in nursing. We examine how intuitive practice when performed automatically, without care, vigilance, and criticism can result in prejudice and patterns of practice which are misinformed. We show that the student nurse develops intuitive, skillful performance in nursing by reasoning about nursing knowledge and applying reflective, critical thought, in practice situations; thereby gaining greater, and greater expertise in reasoning as a safe professional to ensure quality client care. The elements of thought necessary for sound reasoning in clinical practice are explored. Finally, we suggest educational strategies and tactics which promote the development of the intellectual capacities of student nurses as independent critical thinkers.

**HEILBRONER, ROBERT**

*Professor of Economics, New School for Social Research Graduate Faculty of Political and Social Science*

**SUNDAY 3:15; EPT**

**RICHARD W. PAUL**

*Director, Center for Critical Thinking and Moral Critique*

**"The Relentless, Ubiquitous Pressure for Change:" How Do We Protect the Public Good** G, CONF THEME

This is the first of three sessions presented by Robert Heilbroner and Richard Paul that will focus on the social, political, and educational impli-

cations of impending global changes. Robert Heilbroner argues in *21<sup>st</sup> Century Capitalism* that one of the most profound world social realities emerging is the "relentless, ubiquitous pressure for change", "the continuous remaking of the social environment", continual "creative destruction", and "revolution". The market forces underlying this dynamic change bring "negative side effects": large scale inequality, economic instability, unemployment or inflation, pollution, disease, over-cutting of forests, global warming, over-fishing, crime, and other social disorders. Assuming this continues, how can we use the mind's resources to counterbalance and minimize the damage that results? Heilbroner and Paul will focus on this issue from both historical and contemporary perspectives, exploring its implications in a variety of directions.

**HEILBRONER, ROBERT**

*Professor of Economics, New School for Social Research Graduate Faculty of Political and Social Science*

**MONDAY 10:30; EPT**

**RICHARD W. PAUL**

*Director, Center for Critical Thinking and Moral Critique*

**Robert Reich's Vision of the New Global Economic Realities: Do We Need Workers Who Can Think Critically? How Broadly and Well Must Citizens Learn to Think?** G, CONF THEME

This is the second of three sessions presented by Robert Heilbroner and Richard Paul that will focus on the social, political, and educational implications of impending global changes. Robert Reich argues in *The Work of Nations* that as corporations become increasingly international, they increasingly move their capital to nations with the most highly skilled workers, the most "symbolic analysts", the most "critical thinkers". The strongest basis for national wealth and well-being is, therefore, the large scale development of citizens who can think for a living, the natural "magnet" attracting capital from around the world, leading, in turn, to more development of thinking abilities, and hence to increased capital and value. Capital, then, is increasingly "intellectual" rather than "material", "knowing" rather than "possessing". Richard Paul and Robert Heilbroner will analyze this issue, exploring implications in various directions.

**HEILBRONER, ROBERT**

*Professor of Economics, New School for Social Research Graduate Faculty of Political and Social Science*

**MONDAY 3:15; EPT**

**RICHARD W. PAUL**

*Director, Center for Critical Thinking and Moral Critique*

**Lester Thurow's Vision of the New Global Economic Realities: Can We Develop a First-Rate Economy and First-Rate Standard of Living, if Citizens Learn Merely Work-Related Skills and Cannot Think Critically Within Alternative Points of View?** G, CONF THEME

This is the third of three sessions presented by Robert Heilbroner and Richard Paul that will focus on the social, political, and educational implications of

impending global changes. Lester Thurow argues in *Head to Head: The Coming Economic Battle Among Japan, Europe, and America* that all capitalistic economies today are either "individualistic" (everyone for himself) or "communitarian" (the well-being of the whole comes first). The U.S. and Great Britain are the former, Europe and Japan, the latter. Communitarian forms of capitalism, Thurow argues, are much better suited to the emergent world economy. For the U.S. to maintain a first-rate economy and standard of living, it must abandon its commitment to "individualistic" capitalism and undergo an intellectual paradigm shift. Unfortunately, Thurow does not explain how this shift is to be democratically effected, how Americans can be "persuaded" to abandon deeply ingrained thinking. Richard Paul and Robert Heilbroner will analyze this issue, exploring implications in a variety of directions.

**HENRY, RAQUEL** SUNDAY 3:15; STEV 3049  
*Vice-President for Student & Organizational Development, Kingwood College*

**NELLIE THOROGOOD**  
*Vice-Chancellor of Educational Affairs, North Harris Montgomery Community College District*

**ROSE AUSTIN**  
*Assistant to Vice-Chancellor of Education, North Harris Montgomery Community College District*

**Classroom, Curriculum, and Leadership Reforms: Developing Critical Thinkers in the Community College** COLL, STAFF DEV

Improving students' thinking skills has been an objective of community college educators for years. This participatory workshop focuses on how classroom strategies, curriculum designing, and leadership can aid in this improvement. The presenters are administrators who teach, assist in design curriculum, and provide leadership. Strategies will be given for facilitating critical thinking skills in the classroom, curriculum, and in leadership. Discussion and questions from the audience are encouraged. The presentation will focus on applications of critical thinking in the planning, development, and implementation processes for student and community development of a multi-college community college system. Emphasis will be provided on the skills needed by leaders, values needed for leaders as continuous learners, and applications processes integrating critical thinking to be practiced for fulfilling student and community needs.

**HIRSCH, JUDI** TUESDAY 3:15; STEV 3072  
*Resource Specialist, Oakland Public Schools*

**The Dynamic Assessment of Learning Potential: Combining the Theories of Freire and Feuerstein** TEST, MUL-CULT, PSYCH, H RIGHTS

An overwhelming proportion of our nation's students are not being taught to think at school. Furthermore, many are being tested, labeled, and tracked into underachievement. This is especially true of working class people and people of color, although our more affluent students are not being taught to think either; rather, they are being trained to perform on command. This

workshop will present a revolutionary way of looking at students which enables them to become powerful learners. Theory will be presented as well as a case study. We will also discuss ways of enhancing cognitive skills by using mediated learning experiences. There will be ample time for questions.

**HITCHKO, BARBARA J.** TUESDAY 10:30; IVES 45  
*Director, C.A.R.E., (Children at Risk in Education)*

**DAN BURRITT**  
*Teacher, and Co-Director, C.A.R.E., (Children at Risk in Education)*

**Teaching for the Future and Preparing Students for the Educational Demands of the 21<sup>st</sup> Century: Problems, Strategies, and Solutions** K-12

This presentation will focus on problems with, and solutions and strategies for, teaching children to become active participants in their own learning as well as productive, socially responsible citizens. We will examine how to empower children to make responsible decisions by using the Thinking Skills Format and by looking at logical consequences of their own behavior. Children can't be forced to think and learn, they must be invited and motivated. As Richard Paul said in his opening remarks at last year's Critical Thinking Conference, "We must reach the student's hearts as well as their minds."

We will demonstrate how creating a classroom environment that encourages creative critical thinking and responsible decision making will provide students with the coping skills and strategies necessary for academic success. Rather than concentrating on self-esteem, the heart of C.A.R.E. encourages student self-empowerment and self-actualization by guiding them in becoming responsible, cooperative and successful learners and citizens.

**HOAGLUND, JOHN** MONDAY 1:30; ART 108  
*Director, Center for Critical Thinking, Christopher Newport University*

**Pre- and Post-Testing a College Critical Thinking Course** COLL, TEST

Three-hundred and seventy one students completing critical thinking courses from Fall 1985 to Spring 1992 showed modest (7.3%) post-test gains, while a control group of 92 showed no gain (-1.5%). Characteristics of the students, pre and post-test, organizing principles of the course, and its role in the curriculum will be sketched. Sample teaching materials, exercises, test questions, and projects will be presented for working and comments by workshop participants.

**HOYT, DR. NICKI** WEDNESDAY 10:30; IVES 78  
*Director of Health Occupations, College of the Redwoods*

**Critical Thinking Teaching Strategies in Nursing and Health Sciences** HEALTH, MUL-CULT, H RIGHTS, COLL

This interactive session is designed to provide nursing and health science faculty with hands on experience in the selection and design of critical thinking teaching strategies. Educational reform through critical thinking praxis (theory in practice) is the focus of the session. A short video of

vignettes role modeling critical thinking praxis is presented. Actual classroom scenarios for both lecture and laboratory courses in nursing and health sciences are utilized for designing teaching techniques. Multi-culturalism, ethical decision making, and the development of critical thinking skills for health care and other social reform are explored in representative exemplars from community colleges across the state of California.

**HUGO, JANNA LEE** MONDAY 10:30; STEV 3030  
*Director of Education Dialogues, University of Phoenix, Colorado Campus*

**Teaching to the Brain** K-12

Critical Thinking is an appropriate human expectation, for comparing, patterning, and categorizing are natural functions of the brain. For this to happen, students need to discuss, think, and reflect to reach a desired performance outcome. Then by "showing," an assessment of their usable "knowing" is possible.

You can learn how to apply the vast knowledge now available on how the brain, our organ of learning, really operates. By working *with* the brain, a discuss/think/reflect/show learning formula can bring exciting, meaningful, higher order thinking into every classroom in all subject areas. When you leave this participatory workshop, you will have ready-to-use lesson plans.

**JAMIN, FRANCINE MALDER** MONDAY 12:15; IVES 45  
*Professor of English/ESL, Montgomery College*

**A Small Band in a Circle of Light — Teaching Writing and Reasoning in a "Quality Circle"** LANG, COLL, MID/HIGH

This presentation describes and models an interactive technique of teaching writing. It establishes structured

conversations in a circle which are an alternative to the standard collaborative groups and an analog to

W. Edwards Deming's "quality circles." Through engaging in dialogues, students come to recognize that writing begins not with a set of grammar rules, an outline, or a topic sentence, but with an idea. In the "circle of light" ideas emerge, evolve, and ultimately are tested. In a supportive environment, students overcome some of their anxiety about hearing their own "voices" (aloud and on paper) and begin to assess their own thinking, as well as that of others, using standards of critical judgment.

**JOHNS, DONALD** MONDAY 8:45; NICH 173  
*Lecturer, English Department, University of California, Davis*

**Literature, Empathy, and Critical Thinking** LANG, COLL, MUL-CULT, MID/HIGH

The rationale for this session rests on four ideas: 1) Empathy is an essential element in critical thinking. 2) The study of literature can promote greater empathy with people living in diverse circumstances. 3) Introductory courses should begin with carefully constructed activities appropriate to stu-

dents developmental levels, activities encouraging students to articulate and examine their responses to literature. 4) Specialized disciplinary knowledge such as critical theory and terminology, while important, should play a secondary role to the study and development of student response. We will closely examine a few short poems, synthesizing elements of Richard Paul's Socratic discussion strategies with reader-response activities suggested by the work of Janet Emig, Peter Elbow, and Louise Rosenblatt. This will be a participatory workshop beginning with a brief presentation of the rationale followed by writing, small-group work, and general discussion.

**JOHNSON, C. LINCOLN** SUNDAY 12:15; STEV 3030  
*Associate Professor of Sociology, University of Notre Dame*

**Religious Values and Critical Thinking: The Quest Dimension** SOCIOL, MUL-CULT, H CON

This workshop focuses on the dynamic relationship between critical thinking and concerns over beliefs, values, and commitment. The workshop draws upon insights from David Kolb (tolerance for ambiguity is a subset of learning styles); Max Weber, the classical sociological theorist (*Science as a Vocation and The Social Psychology of World Religions*); and the more recent work of Daniel Batson, a psychologist whose studies in religiosity and prosocial or helping behavior has been prevalent in contemporary research. The experiential portion of the workshop will focus on the instrument developed by Batson, who posits a Quest dimension of religiosity. Quest is an extension of Allport's "Means"/"Ends" religious dimensions, and is viewed as the "mature" dimension of religious development. There is an affinity between the Quest dimension of religiosity and principles of critical thinking.

**JOHNSON, RALPH H.** TUESDAY 8:45; STEV 3008  
*Professor of Philosophy, University of Windsor*

**Argumentation: A Pragmatic Approach** THEOR

Following the lead of some argumentation theorists and logicians who emphasized pragmatic aspects of argument, this paper proposes further steps in the pragmatization of argumentation. After explaining what I understand by a pragmatic approach to argumentation, I discuss the principal features that come to the fore in this approach. They are first, argumentation as teleological; second, argumentation as dialectical; third, and most important, argumentation as manifest rationality.

**JOHNSTON, LETITIA M.** MONDAY 12:15; STEV 3077  
*Professor of Humanities, Rose State College*

**CONNIE CANTRELL**  
*Professor of Humanities, Rose State College*

**Risk Taking and Real Issues: A Perspective of the Teacher as Learner** C, CURRICULUM DEVELOPMENT

This presentation will consider the theory underlying the use of current issues as a means of enabling the instructor to join students in analyzing

important multilogical issues. We encourage teachers to step outside their fields of expertise and join with their students in applying critical thinking strategies in analyzing real world issues. We will share our experiences in developing projects that use current multilogical issues in lesson redesign, course content redesign, innovative course development projects, and team teaching projects.

Seminar participants will be given outlines and suggestions for practical applications for the preparation, implementation, and assessment of program designs incorporating critical thinking instruction. These applications will be paralleled in theory with Richard Paul's criteria for thinking and reasoning strategies. Participants will have an opportunity to examine a few selected current issues in order to experiment with creating applications suitable for their fields of interest.

**KEELEY, STUART M.** MONDAY 12:15; IVES (WARREN)  
*Professor of Psychology, Bowling Green University*

**What Can Psychotherapists Tell Us About How to Cope with Resistance to Critical Thinking** PSYCH, COLL

Teachers embracing critical thinking as a classroom objective must face a major obstacle: student resistance to change. The typical learner feels the need for change, yet wishes to remain as is when faced with a learning approach that threatens his/her present attitudes and behavior. How can teachers overcome student resistance? The psychotherapy literature gives us some important insights, because therapists must address analogous kinds of resistance and have written extensively about efforts to do so.

This workshop illustrates how insights borrowed from the psychotherapy literature can help teachers overcome student resistance to critical thinking. Workshop participants will be asked to generate kinds of resistance they have encountered in their own classrooms. I will then share a list of ideas about how to overcome resistance, which is stimulated by investigating the psychotherapy literature on resistance. Then participants will be asked to share anti-resistance strategies that they have found to be helpful.

**KELDER, RICHARD** TUESDAY 8:45; STEV 3028  
*Curriculum Coordinator, S.U.N.Y. College at New Paltz*

**Teaching Critical Thinking and Argumentation from Global Perspectives** ADV, H CON, H RIGHTS, COLL

My session will examine an alternative paradigm of argumentation based on teaching critical thinking for the purpose of minimizing conflict and building consensus in a changing world. Most formal theories of argumentation support the conventional belief in the individual's ability to state a position in opposition to others or a given state of affairs. However, this methodology must be re-evaluated to allow for intentions, situations and

contexts that support inter-dependencies unique to new organizational structures and systems as indicated by Thurow in *Head to Head*.

This session will offer a theoretical and practical analysis of this topic. In addition, it will examine the role of cultural differences, e.g., Japanese and American, in teaching critical thinking, and the function of argumentation in "high context" and "low context" cultures. Instructional models and assignments will be discussed.

**KENDALL, GAIL A.** TUESDAY 8:45; NICH 173  
*Director of Chapter 1 Services, Agua Fria UHS/Rio Salado College*

**DIANE WHEELER**  
*Director of Special Education Services, Agua Fria Union High School District*

**Project Think: An Integrated Language Arts Approach to Critical Thinking** LANG, MID/HIGH, H RIGHTS, ENV

Project Think is an integrated, language arts based program, which uses thematic units, combined with a critical thinking focus, to ensure that all students meet the demands of the 21<sup>st</sup> century. These demands include but are not limited to: making informed decisions, solving problems effectively, and becoming contributing democratic members of the global community. In this session, participants will discover the process of aligning a critical thinking hierarchy with thematic units, creating a process model for critical thinking and learning techniques that promote transfer.

**KERWIN, ANN** SUNDAY 3:15; IVES 35  
*Philosopher-in-Residence, Department of Surgery, University of Arizona*

**MARLYS H. WITTE**  
*Professor of Surgery, University of Arizona, College of Medicine*

**CHARLES L. WITTE**  
*Professor of Surgery, University of Arizona*

**"The Unanswered Question" Meets "The Ultimate Learning Center"** G, HEALTH

The lament "a mind is a terrible thing to waste" is achingly apt today. As "knowledge factories" generate more information than learners can ingest, we "under-utilize" our ultimate learning centers: our musing, exploratory minds. In this participatory workshop, Marlys and Charles Witte M.D. and Ann Kerwin Ph.D., of the innovative Curriculum on Medical Ignorance at the University of Arizona College of Medicine, focus on the "unanswered question" — as motive, lure, and source of learning. Participants will wonder, ponder, question, and discover. Presenters have no pat answers to urgent questions about education in the U.S.; no "magic bullets" for national ills. Rather *The Unanswered Question* is a powerful, provocative catalyst for accessing the ultimate learning center. Participants will use their abundant, self-renewing power sources — their inquiring minds and unanswered questions — to produce needed answers, and deeper, richer questions.

**KIM, JOHN C. S.**

*Professor of Philosophy, Rio Hondo College*

**TUESDAY 10:30; STEV 3077**

**Creative Critical Approaches to Educational Reform** COLL, MID/HIGH, MUL-CULT, LANG

In 1989, Lamar Alexander, secretary of education under the Bush administration laid down six objectives for U.S. Education Reform which he called "revolutionary," one of which states: "Every school will be free of drugs and violence and will offer a disciplined environment conducive to learning." By following these objectives, our children were to be number one in the world in both math and science by the year 2000. But we are continuously failing on both counts, and metal detectors used on students do not stop violence on the campuses or in the classrooms. There is no quick fix for educational failure. A fundamental reform is needed to reverse the trend. This requires a long term but determined and brave new approach to education. Below are my agenda for the reform: 1) Overhaul today's shallow and faulty educational goals which have been primarily for science and profiteering at the sacrifice of the study of humankind. 2) Incorporate moral training into the curricula. 3) Learn and adapt the educationally successful systems of the Asian nations.

**KLEIN, DONALD R.**

*Professor of Philosophy, Gavilan Community College*

**SUNDAY 3:15; NICH 204**

**Critical Thinking and the Committee Process** G, H CON, STAFF DEV

All of us spend much time working in committee structures. What is the level of productivity and satisfaction? This workshop will allow participants to look at the basic committee process, the infusion of critical thinking principles and components, some specific reasons for dysfunction, and some specific strategies for success. The workshop includes some formal presentation, questions, answers, and clarifications, full audience participation, and it concludes with an exercise which allows the participants to put the material to work.

**KNOTT, TARA D.**

*Director, Evaluation Resources, Inc.*

**MONDAY 8:45; STEV 2065**

**The Thoughtful Use of Distance Education Technology** TECHNOLOGY, G

Distance Education (DE) removes the constraints of time and place, giving students everywhere the potential to acquire needed knowledge from any place, at any time. These constraints, however, are trivial if the more serious problem of vestigial thinking about the use of DE remains. Current educators seem to believe that simply putting together a student and the technology — without any changes in curriculum or pedagogy — will result in learning. Such anachronistic thinking will constrain DE to underuse and uninventive uses, and may actually cause harm. DE technology per se, however, is not the cause of these concerns. The problem lies with educators' failure to critically consider students' present and future needs and

resources and the role DE can play in reforming education. However, if educators are willing to abandon such paradigmatic thinking and begin to critically consider DE's potential in interactive workshops such as this, DE can offer a plethora of previously unimagined educational experiences.

**KOEP, MONICA M. C.**

*Teaching and Learning Facilitator, University of Namibia*

**MONDAY 8:45; NICH 204**

**On the Need for Critical Thinking About Democracy in Namibia** MUL-CULT, H RIGHTS

At independence in 1990, Namibia emerged from a unique position of colonial apartheid which determined social, socioeconomic, economic, political and educational structures in very particular ways. As an emergent democracy in Africa, the country subscribes to an exemplary constitution and has introduced formal democratic structures and procedures. What needs to be established, nurtured and maintained is a culture of reason, democratic values and thinking that will underpin these structures. A multi-level and culturally sensitive infusion of critical, constructive and creative thinking concepts and strategies into all domains is required if Namibia is to develop optimally, deal with the legacy of the past, and face the challenges of the future.

**KOSHI, ANNIE K.**

*Associate Professor of E.S.L., The City College of New York*

**WEDNESDAY 10:30; NICH 173**

**Holistic Grammar Through Socratic Questioning** LANG

Followers of the acquisition/learning theory, postulated by Krashen, believe that explicit teaching of grammar is not helpful to second language learners. However, there are others, such as Celce-Murcia, who believe that formal classroom teaching of grammar has an important role in second language learning. As a result of this controversy, pedagogians are looking for the most effective methodology of teaching grammar to second language learners. Holistic teaching of grammar by exposing learners to critical reading of discourse level prose is a successful approach. Socratic questioning aimed at form-meaning analysis is a very useful technique in adopting this approach. It helps learners critically analyze the input, form and test hypotheses, and in the process, evolve themselves as critical thinkers and learners, taking the responsibility of their own learning of grammar.

This paper will examine the theoretical framework of holistic grammar and discuss how Socratic questioning helps learners "discover" and arrive at conclusions about the "rules" of grammar.

**LASSEK, YUN JA**

*Managing Director, Greater Philadelphia Philosophy Consortium*

**MONDAY 3:15; DAR 139**

**Teaching Environmental Ethics Through Various Critical Thinking Methods** ENV

Whether we believe in the Gaia hypothesis or the equilibrium of a self-sustaining ecosystem, or neither, ecological problems will remain as long as

human beings inhabit the earth. The well-being of future generations depends on how we educate the young to be conscious of environmental ethics today, and a liberal democratic society calls for a particular kind of education which will promote the young to think for themselves and make sound decisions according to their own understanding and critical judgments. After introducing two dialectical views of ecological theory, and after exploring the connection between environmental ethics and many methods of critical thinking, the workshop participants will engage in a sample mini-workshop based on an original environmental ethics text, *Mul Bang Ul*.

**LAUGHLIN, RICHARD L.** TUESDAY 1:30; STEV 3036  
*Superintendent, Clatsop County Educational Service District*

**JANET LAUGHLIN**  
*Teacher, Consultant, Astoria School District*

**An Educational Paradigm Shift** c

Today's student is a global creature, not by conscious choice, but rather by mere existence in the world order. Today's teachers, parents — all citizens — must face the complexity of preparing this new student to compete and succeed, to think creatively and critically, and to solve problems effectively in all areas of education as well as in successful life experiences. It will require visioning, changing people, and changing past practices. The workshop will focus on administrative involvement in elements of change for early childhood education, early intervention, multi-phasic screening and administrative paradigms. It will include interactive demonstrations of the teaching of critical thinking skills in the classroom with research based activities integrated at all age levels and all curriculum areas.

**LAZERE, DONALD** MONDAY 3:15; STEV 2049  
*Professor of English, Cal Poly State University*

**Literature for Critical Thinking** COLL, MID/HIGH

This repeat of a well-received workshop at the 1988 conference will demonstrate how literature courses can be organized around critical thinking topics and will apply the following criteria of critical thinking to the study of world literature at the college and high school levels.

- Connecting the abstract and concrete, the ideal and real.
- Connecting the personal and the impersonal.
- Connecting the past and the present.
- Understanding irony, ambiguity, multiple meanings and viewpoints.
- Transcending psychological blocks to critical thinking.
- Monologic and dialogic thinking in literature.
- Understanding ideological viewpoints in literature.

**LAZERE, DONALD** TUESDAY 3:15; NICH 173  
*Professor of English, Cal Poly State University*

**Teaching the Political Conflicts in Writing Courses** LANG, SOC STUD, POL, MEDIA

In the past few years the introduction of political controversies in college writing courses has itself become a source of controversy both within and outside the English profession. One reason for this controversy is that little basis has been established within the discipline of composition delineating either a critical thinking framework or practical and ethical guidelines for dealing with political controversies in the writing classroom. This workshop will apply critical thinking categories and dispositions to these problems, as well as generating units of study and assignments that can be integrated into the established structure of basic and advanced writing courses. The breadth of topics and pedagogical issues addressed will make the workshop of interest not only to teachers in English but in all other fields of the humanities and social sciences, in college and high schools.

**LESHOWITZ, BARRY** SUNDAY 3:15; IVES 45  
*Associate Professor of Psychology, Arizona State University*

**ELAINE YOSHIKAWA**  
*Graduate Student of Psychology, Arizona State University*

**How to Reduce Cognitive Bias and Promote Critical Thinking** COLL

Rarely given explicit instruction on how to apply principles of reason in addressing everyday problematic situations, students often rely heavily on emotion-based thinking when making decisions. They also accept information at "face value," indicating passive, non-questioning attitudes. Recognizing these deficiencies, the first author has developed an instructional intervention that is designed to promote critical analysis of evidence and insights into the distorting effects of personal bias. In this collaborative learning workshop, a problem based learning format is used to enable participants to discover for themselves their current ways of thinking in an effort to facilitate "reasoned knowing" and healthy skepticism. The first participatory exercise will examine the marketing of a "questionable" consumer product from the perspective of the company, consumer, and regulatory agency. A second problem will focus on the legal, ethical, and medical ramifications of distributing untested drugs for AIDS.

**LEWIS, ANNE I.** TUESDAY 8:45; NICH 304  
*Lecturer in Education, Sonoma State University*

**KEVIN FELDMAN**  
*Lecturer in Education, Sonoma State University*

**Activating and Organizing Thinking: Scaffolded Instructional Strategies for the Heterogeneous Classroom** K-12, SPECIAL ED, LANG

Current reform and restructuring movements in education call for significant changes in instruction and curriculum if we are going to create access

for all students. This presentation will explore research based instructional enhancements that "water-up" the curriculum and assist diverse learners such as limited English proficient (LEP) and mainstreamed special education students in activating, organizing, and reflecting about their thought processes. The specific classroom techniques presented are based on current research in cognitive psychology and include a cognitive literacy strategy, graphic organizers, and processes for activating and connecting prior knowledge.

**LEWIS, RICHARD B.**

**MONDAY 1:30; DAR 122**

*Associate Professor, Civil Engineering, Louisiana Tech University*

**Critical Thinking in All Engineering Classrooms** ENGINEERING, MATH/SCI, COLL

This session will concentrate on several critical thinking skills that have been incorporated into a typical Statics class in the engineering curriculum. Participants will identify with the "standard approach" used in the teaching of beam analysis; after a short critique, a remodeled lesson plan will be demonstrated and discussed to show how to wean the student away from the teacher and foster those skills necessary to survive in the engineering world of the 21<sup>st</sup> Century. Emphasis will be on critical reading, critical listening, critical writing, critical speaking, and Socratic questioning. Some techniques will be demonstrated, but only to show how the critical thinking skills can more easily be developed by the facilitator, and mastered and used by the student.

**LINDEN, TED**

**MONDAY 12:15; STEV 2083**

*Consultant*

**Toward a New Generation of Educational Software to Teach Critical Thinking** COMPUTER, MID/HIGH

This session evaluates the extent to which a new generation of educational software can teach critical thinking. Once software that encourages critical thinking becomes feasible, cost effective, and fun, it can be replicated easily and result in widespread improvement of thinking skills. The paper presented in this session describes how results of recent research in computer science and artificial intelligence can lead to dramatically new education software modules. Very flexible simulations can enable holistic learning experiences where students pursue goals, seek out the information they need to make decisions, evaluate the relevance of information, question their assumptions and inferences, and deal with conflicting viewpoints. The simulation should emphasize cooperative problem solving and require social and interpersonal skills as well as subject-specific knowledge. Discussion during this session will evaluate the extent to which the proposed properties of future education software are necessary and sufficient to help teach critical thinking.

**LIPMAN, MATTHEW**

**MONDAY 1:30; IVES 119**

*Director, Institute for the Advancement of Philosophy for Children, Montclair State College*

**Philosophy for Children as Critical/Creative Thinking** K-12

This session will be part lecture, part workshop, part discussion. It will begin with a definition of critical/creative thinking, showing it to be based upon four criteria. In the second part, there will be a "community of inquiry" discussion of a text, in which reasoning about an ethical situation will be examined. The remainder of the session will consider the extent to which the workshop outcomes satisfied the original definition of critical/creative thinking.

**LIPMAN, MATTHEW**

**TUESDAY 1:30; IVES 119**

*Director, Institute for the Advancement of Philosophy for Children, Montclair State College*

**Alternatives in Narrative Philosophy** K-12

Philosophy for Children employs philosophy in a story form for presentation to children. But this format opens the way to its use in non-standard settings: with college students, pre-school children, adolescent alcoholics, perceptually impaired, AIDS sufferers and so on. It has shown itself especially useful in teaching English as a second language and in working with illiterates. Reference will be made to the way Philosophy for Children is taught in other countries around the world.

**LITECKY, LARRY**

**TUESDAY 10:30; STEV 2065**

*President, Minneapolis Community College Faculty Association*

**Active Learning, Critical Thinking, and Global Economics** COLL, ECON, TEST

This presentation will focus on the practice of critical thinking in college classrooms through active learning strategies. The format of the session will involve two small group activities and discussion, as well as the presentation. The session will include one activity which uses global economics to model active learning and critical thinking. The presentation will move from a definition of critical thinking and the pedagogy of active learning through examples of active learning strategies to a focus on examples of teaching critical thinking in economics.

Four phases characterize this session. First, there is a presentation on the link between active learning strategies and critical thinking. Second, participants will identify and discuss activities done by students which promoted critical thinking. The third phase will examine sample active learning strategies in the humanities and social sciences. The final activity will use the three one-page summaries of Heilbroner, Reich and Thurow to model active learning strategies.

**LOASE, JOHN F.**

*Associate Professor of Mathematics, SUNY-Westchester Community College*

SUNDAY 3:15; DAR 122

**SHERRON SARGENT**

*Associate Professor of Nursing, Kent State University*

**Sigfluence Our Positive Influence Over Time: A Quantitative and Qualitative Analysis** MATH/SCI, PSYCH, TEST

The workshop will analyze sigfluence (significant, long-term positive influence) from the traditional academic perspectives of linguistics, education, psychology, and statistics. It will also feature a 30 minute video segment of a qualitative sigfluence session.

A discussion of the relationship between the quantitative and qualitative approach to sigfluence will complete the session.

Sigfluence was highlighted by the *New York Times* as one of the new concepts that emerged from Harvard University's 1984 International Conference on Thinking. According to Loase's emerging theories, sigfluence is a fundamental and widely neglected need of person. Sigfluence has applications to myriad domains such as education, counseling, politics, and most importantly to our individual lives.

**LOFTHOUSE, LYNN J., PH.D**

*Assistant Professor of Communications, Wesley College*

TUESDAY 8:45; IVES 45

**A Prescription for Building Critical Thinking Skills Through Persuasive Message Construction** C

This workshop has as its objective to build critical thinking skills, and employs the construction and communication of a persuasive message as the vehicle for accomplishing this goal. The workshop will begin with a diagnostic to help participants determine how they critically think through the persuasive process. Next, a presentation will be given about the Monroe Motivated Sequence, a learning tool to build critical thought into persuasion. Participants will then individually construct and present a persuasive message. Messages will be video taped and replayed to the group for a critique and an analysis of how critical thinking was employed. Key techniques for developing important parts of the message will be discussed and explained. Based on feedback, participants will then revise their messages to employ higher levels of critical thinking and to reflect their greater understanding of the process.

**LORING, RUTH M.**

*Educational Consultant*

WEDNESDAY 8:45; IVES 78

**Critical Thinking and Professional Development: An Approach Consistent with "Communitarian Capitalism"** TEST, STAFF DEV

Professional development which takes into account the implications of a 'communitarian capitalism' demands a structure which goes beyond traditional inservice workshops. In this approach to professional development,

teachers are led to clarify, analyze, evaluate, and reflect on 1) the content they are teaching, 2) the strategies they employ, 3) the value of their processes, and 4) the effectiveness of their communication. The structure of the professional development includes: direct teaching of critical thinking strategies in an interactive workshop setting, on-site consultation over a period of time, and follow-up visits to support implementation of individual growth plans and collaborative activities among colleagues. Participants will view and respond to a video-taped decision making lesson from a middle school classroom. Guidelines for the implementation will be described. Time for reflection and discussion will be provided.

**LUCKEY, SUE Y.**

*Professor of Information Sciences, Morehead State University*

WEDNESDAY 10:30; STEV 3072

**Active Learning Strategies That Enhance Critical Thinking** COLL, TEST, ACTIVE LEARNING

To enhance critical thinking skills, college students must be actively involved in the learning process rather than passive recipients of lecture material. They must talk and write about what they are learning while relating it to past experiences and applying it to daily life. This dynamic participation in the learning process is called "active learning." Although college teachers generally see themselves as good lecturers, lecturing does not guarantee learning. Therefore, nineteen ways to alter the traditional lecture will be presented. These active learning strategies are designed to enhance student thinking and learning. Risks involved and barriers which prevent faculty from using an active learning approach will be discussed.

**LUCKEY, JR., GEORGE M.**

*Professor of Philosophy; Director, Center for Critical Thinking, Morehead State University*

SUNDAY 1:30; STEV 2065

**Critical Thinking and Active Learning Across the Curriculum** C, TEST

The purpose of this presentation is to present a model for infusing critical thinking and active learning into the traditional content of any college course or public school classroom. The model consists of in-class activities and questions, and of outside assignments designed to accomplish two interrelated goals. 1) Student self-awareness and bonds of trust with the teacher and with class peers must be established. 2) Thinking skills and associated values and dispositions must be fostered throughout course content.

Specific examples of trust building and self-assessment strategies will be offered. Then, the presentation will focus on generic illustrations of questions, assignments, and activities related to: a) skills such as analysis, synthesis, and thinking about thinking; b) dispositions such as flexibility, persistence, and respect for opposing viewpoints; and c) values such as fairmindedness, intellectual honesty, and autonomy. Session participants will be invited to critique this workshop model.



**LUCKHARDT, GRANT**

*Professor of Philosophy, Georgia State University*

**MONDAY 10:30; NICH 304**

**Criteria for Assessing Authorities** COLL, TEST

In this paper some 25 criteria for assessing the credibility of authorities are developed, explained, and discussed. They range from the intuitively obvious (first-hand information is better than second-hand, for example) to many that are a result of recent research in psychology having to do with observation and memory. A discussion of the list that is developed will follow, and a small number of test examples will be evaluated and discussed.

**LYNCH, CINDY L.**

*Assistant Coordinator, Higher Education, University of Denver*

**WEDNESDAY 10:30; STEV 3026**

**Reflective Judgment in the Business Classroom** COLL, BUS, STAFF DEV

This participatory workshop will allow participants a glimpse of the consultation occurring between reflective judgment researchers/educators and a small group of business faculty. The aim of the project is to help business faculty redesign coursework to more adequately encourage reflective thinking; it is part of a 3-year grant from the Fund for the Improvement of Post-Secondary Education (FIPSE). The project is based on the seven sequential stages of the reflective judgment model of cognitive development proposed by Patricia King and Karen Kitchener. Their work has suggested that the ability to solve ill-structured problems is strongly related to the development of increasingly complex assumptions about knowledge and how it is gained.

**MAHARA, M. STAR**

*Instructor of Nursing, University College of the Cariboo*

**TUESDAY 10:30; STEV 3028**

**S. DAWN PATTERSON**

*Instructor of Nursing, University College of the Cariboo*

**Writing to Learn: The Use of Journals to Teach and Evaluate Thinking**

COLL, TEST, HEALTH

Teaching and learning at the post-secondary level has traditionally focused on the acquisition rather than the understanding of course content. Educational efforts have seldom been directed towards teaching students to think and reason. Effective learning involves both the acquisition of new information or experience (content), and the individual's personal discovery of the meaning of the experience (understanding). Writing is an essential means of acquiring knowledge, a process through which an understanding of the content under study is developed and not merely memorized or reported. By reflecting on written material, students have the potential to see things more clearly. This reflection can then lead to new meaning. Journaling is one way of gaining clarity and perspective, of discovering the relationships of the event to the self, that is, of making meaning from our experiences.

**MAREK, WILLIAM K.**

*Staff Psychologist at the Federal Bureau of Prisons, FCI-Dublin*

**MONDAY 10:30; STEV 3046**

**Reason (Unreason), Thought (Rational and Irrational), and Human Conflict** PEACE, H CON, PSYCH

Is conflict inevitable? Are humans doomed never to learn their lessons, to repeat history (of an egregiously bad kind), to endlessly be mired in "police actions," disputes, wars, and carnage? Will humans ever improve their conflict resolution skills such that the inevitable disputes can be resolved amiably and reasonably?

This session will demonstrate how the building blocks of thought and belief underlie reason, emotion, and conflict. The nature of reason itself and the relationship between thought and emotion will be also investigated. Thought and belief are the cornerstones of human discourse and bind people and societies together ... or drives them apart. A reasoned mind cannot properly be cultivated and a reasonably conflict-free world cannot be achieved until this simple, yet complex, paradigm is understood.

**MARSHALL, JAMES P.**

*Associate Professor of Sociology, University of Northern Colorado*

**SUNDAY 3:15; IVES 78**

**Practicing Democracy in the Classroom Through the Application of Critical Pedagogy** COLL, H CON, MID/HIGH, SOCIOL

Alternative educational practices will play a crucial role as they influence the face of the future, especially in democratic societies. As a counter to traditional pedagogies, numerous alternative pedagogies have emerged attempting to improve the inter-relationship between educational experiences and democratic participation in society. This session focuses on critical pedagogy as one such alternative. Specifically, this presentation will include: an overview of critical pedagogy, the application of critical pedagogy in the form of collaborative learning groups in the university classroom, and a critique of the application of critical pedagogy. Audiotapes and videotapes will be shared to demonstrate the application of critical pedagogy and invite dialogue. This session will be participatory. A paper will be disseminated.

**MARTINEZ, DENNIS**

*Land Restorationist & Inter-Cultural Environmental Activist, American Indian Cultural Center*

**SUNDAY 1:30; DAR 139**

**Traditional Indigenous Knowledge and Western Science: Cross-Cultural Perspectives on Environmental Knowledge** ENV, MUL-CULT

Current land practices (forestry, agriculture, etc.) in the West are based on certain philosophical assumptions about nature which are peculiarly Western. These hidden assumptions cannot be brought to light without an "outside" or cross-cultural perspective. Traditional Indigenous Knowledge (TIK) provides an analytical tool by which to critique Western scientific assumptions. TIK also may offer a complete logical alternative to science, as well as

provide a model of land stewardship which can be adopted to present industrial society. A synthesis of ethics and Western science may resolve the current impasse between wilderness preservation and sustainable use.

**MATTHIES, DENNIS** SUNDAY 3:15; IVES 79  
Lecturer, Center for Teaching and Learning, Stanford University

**The New Economy, the New Pedagogy** c

With the advent of a truly global economy and an onslaught of new technology, the college graduate may face four or five careers, with particular jobs lasting an average of only three or four years. What does this mean for today's students and for the old debate between careerism and intellectualism? What will provide our students with the best preparation for a meaningful and successful life in the new economic order: traditional pre-professional education? Traditional liberal education? Something new?

**MATTHIES, DENNIS** MONDAY 1:30; STEV 3008  
Lecturer, Center for Teaching and Learning, Stanford University

**Plowing and Grinding vs. Working Reflectively** G, BEG

Do our students simply "check off" their reading assignments? To what extent are they also experiencing significant improvement as readers? Do they plow through their writing projects one by one? Are they deepening as writers? Do they grind out their problem sets, or does their approach ensure that they are continually discovering wider lessons about problem-solving? In short, *is there a way for us to work that guarantees a gradual evolution in our underlying skills?* This workshop will demonstrate question-based strategies for teaching reflective learning to students at all levels. "Plow steady." Even though it's the sort of advice Ben Franklin might have given in *Poor Richard's Almanac*, it's no way to work.

**MAYFIELD, MARLYS** MONDAY 10:30; ART 108  
Professor of English, Vista College

**Four Approaches to Conscious Problem Solving: A Critical Thinking Tool Kit for Classroom or Community Use** G, H CON

The workshop will begin by distributing handouts on four approaches: 1) rational, 2) fact-finding, 3) lateral, 4) goals. The participants will choose one contemporary problem for study, then divide into four sub-groups to apply one of the four methods to it. After 45 minutes, a panel of representatives from each sub-group will report to the audience in order to compare and evaluate how each approach directed the group's thinking. The presenter will then demonstrate how problem solving instruction can make the value of critical thinking clear, not only to students of all age levels and in all subjects, but also demonstrates its meaningfulness to corporations, clinics, and city councils. Information will also be given about how to guide groups in collaborative problem-solving research writing.

**MCBRIDE, RON** MONDAY 10:30; STEV 2065  
Associate Professor of Kinesiology, Texas A&M University

**GLENDIA W. BEAMON**  
Assistant Professor, College of Education, Elon College

**Preparing the Future Critical Thinker: Structuring the Middle School Learning Environment for Critical Thinking** MID, G

The purpose of this presentation is to discuss how the learning environment in today's middle school can be structured to prepare tomorrow's critical thinkers. Particular emphasis will be placed on how to make the classroom climate "safe" so that students will be predisposed to critical thinking. Cooperative learning, reciprocal teaching, and questioning are presented as viable teaching/learning strategies. An interdisciplinary approach to the topic is used to view critical thinking across the curriculum. This will be a participatory/demonstration presentation format.

**MCCALLUM, RICHARD J.** MONDAY 3:15; STEV 3036  
Assistant Professor, University of Missouri

**Using Writing as a Method of Encouraging Critical Thinking** COLL, MID/HIGH, LANG

Have you ever asked yourself: "How can I teach someone to make critical thinking a routine part of their life?" Is it possible to encourage critical thinking to become a habit of the heart?

After teaching introductory critical thinking classes for seven years, I became concerned with the small number of college students who would actually transfer their awareness into practice. And so I wondered, how can I help encourage students to begin applying critical thinking concepts, skills and attitudes within their daily life. This question prompted me to design a new course entitled: "Critical Thinking as a habit of the Heart".

This will be a participatory workshop designed to share the content and format of this new course. I would like to establish a discussion forum which would permit me to share five different writing assignments and discuss the outcome of each.

**MCCONNELL, ROBERT** TUESDAY 3:15; DAR 139  
Associate Professor of Geology, Mary Washington College

**DANIEL C. ABEL**  
Assistant Professor of Biological Sciences, Mary Washington College

**Enhancing Critical Thinking Through Quantification of Population/Environment Issues** ENV, MATH/SCI, G

Critical evaluation of environmental/population issues relies in large part on the ability to structure and carry out simple mathematical calculations with confidence involving, among other things, "exponential" growth. Moreover, to understand the impact of pollution on the ocean and atmosphere, students need a quantitative appreciation of the mass and volume of

these bodies, as well as the ability to understand and accurately manipulate units in the metric system. To this end we will present a number of step-by-step illustrations using pocket calculators to quantify 1) the impact of air pollution on the atmosphere, 2) the potential impact of pollutants such as PCBs on the marine environment, 3) the impact of rising living standards on the global ecosystem, 4) the issue of global population growth and 5) the extent to which incremental, small rates of ecosystem degradation (i.e., species loss) produce major impacts over time.

**MCLAIN-MIDKIFF, MICHAEL**

*Principal, Tracy Public Schools*

TUESDAY 3:15; STEV 3030

**Levels of Thoughtfulness in Fifth Grade History and Social Science Lessons: An Examination of Teacher Practice** K-12, SOC STUD, TEST

This session will consist of the sharing of a small scale, exploratory research effort in the area of educational thoughtfulness. The research was carried out with fifth grade students, but the model utilized is applicable K-12. The sharing will include an informal presentation of the paper, time for discussion, and a group activity utilizing the "Self-Concept as a Thinker" scale.

The practical model (Newmann, 1990) was utilized to a) discriminate between more and less successful subjects in the establishment of classroom thoughtfulness, and b) identify successful teacher practices related to classroom thoughtfulness. Specifically, six fifth grade teachers were observed teaching history and social science lessons. Ratings were made using Newmann's (1990) overall scale of classroom thoughtfulness. The subjects were then interviewed. Successful teacher practices and subjects in the establishment of classroom thoughtfulness were identified.

**MELCHIOR, TIMOTHY M.**

*Principal, Memorial Jr. High School*

MONDAY 1:30; STEV 3036

**Connecting Learning Through Thinking Dichotomies: Memorial's (Valley Stream, New York) Polar Conflicts** STAFF DEV, K-12

How can a school help students to make connections among their learning experiences? How can a school design such a program so that all of the adults in the school, including counselors, coaches and club advisors can participate in it? How can a school help students to become more abstract thinkers?

This participatory workshop will focus on an existing, practical program, which is based on the use of thinking dichotomies, that addresses these questions. Participants will learn how it works, how it can be locally adapted, and how it costs virtually nothing to implement. In addition, concrete illustrations from classroom lessons will be provided along with a holistic framework for connecting the dichotomies to thinking skills and study skills.

**MENA, MANUEL**

*Associate Professor, Human Resources Management, State University of New York, Oswego*

TUESDAY 1:30; STEV 3026

**Bridging Academia and Business: A Reality-Based Curriculum** BUS

The integration of elements from the work-place into a classroom setting is certainly not a new concept; but the manner in which they are operationalized invites new, innovative approaches to the teaching of courses. Three separate, yet interrelated, factors inherent in any given work-setting have been isolated and incorporated within a senior-level/capstone course in business policy and simulation. The factors being: 1) Technology (e.g. distance communication/learning; electronic mail; etc.); 2) Problem Solving (e.g., use of case analysis; etc.); and 3) Team Building (e.g., students working as management "teams" in decision-making; intra-group peer evaluations; etc.). Additional "closure" with industry is pursued through creative classroom projects with real world scenarios provided by business professionals.

**MEYERS, CHET**

*Professor of Humanities, Metropolitan State University*

MONDAY 3:15; CAR 68

**Creating an Active Learning Classroom that Encourages Critical Thinking** COLL, MID/HIGH

The term "active learning" is much in the news today on college campuses. This workshop offers a positive definition of active learning — instead of merely defining it in opposition to lecturing — and provides a practical framework as a guide to choosing sound teaching and learning strategies. We know that students learn to think critically by practicing thinking skills. This means creating meaningful activities in the classroom that engage students in their own learning. Yet the pressures teachers feel to "cover the content" seem to leave little time for activities that help students clarify their own thinking processes. Participants will work in small groups to develop or improve a small group exercise they can use with students in classes of any size that will clarify student thinking abilities.

**MISSIMER, CONNIE**

*Author*

TUESDAY 1:30; STEV 3040

**Getting up to Snuff in Theorizing About Critical Thinking** ADV, THEORY, MUL-CULT

As theoretical endeavors go, from a historical perspective critical thinking is in its infancy, the term having been coined midway into this century. Thus it is not surprising that to date most claims about critical thinking have been descriptive, based on intuition and appeal to ancient authorities. But for critical thinking to epistemologically advance, it must approach as closely as possible the rigorous standards of theorizing in more developed fields: 1) theorists need to specify the phenomenon of critical thinking in such a way that they open their theories to "unlikification"; 2) the theories need to be as simple as possible; and 3) the theories should have empirical support. I

offer a theory that defines critical thinking as that phenomenon which drives the growth of knowledge, and which posits that the mechanism of critical thinking is the weighing of alternative theories in light of their evidence. The first half of the session will be devoted to making this case, the second half to group discussion critiquing it in light of alternatives.

**MORSE, OGDEN** **MONDAY 8:45; IVES 78**  
*English Teacher, Joel Barlow High School*

**Points of View: The Application of Thinking Skills to Subject Matter**  
 MID/HIGH, COLL

Every subject matter teacher faces the same dilemma: too much material, too many skills, too little time. At the national level the debate between mastery of specific academic content and the development of intellectual and social habits leaves the classroom teacher wondering what the daily lessons should contain. What, in fact, is the curriculum: textbooks or skills?

This workshop is designed to suggest some practical methods by which teachers can integrate critical thinking skills with subject matter to produce a variety of student responses. Participants will be actively involved in the processes of a classroom as they work through a series of exercises, noting the methods employed and the cognitive skills required. There will be a handout containing excerpts from research, a theoretical learning model, a lesson plan, excerpts from student papers. And the group will view a videotape, the final project of a senior high school class.

**MORSE, OGDEN** **MONDAY 3:15; IVES 78**  
*English Teacher, Joel Barlow High School*

**Literature and Problem Solving: The Integration of Thinking Skills and Subject Matter** MID/HIGH, COLL

The solving of problems is a major part of a student's academic life, but most students associate this skill with mathematics or the sciences. Although students reading works of fiction recognize that the characters struggle to find solutions to complex problems, they fail to recognize any application of the text and its problems to their own lives. How is it possible to get students to understand that classroom activities have real life applications?

The purpose of the workshop is to demonstrate how this connection can be made through the use of higher order reasoning, communication and collaborative skills, and student creativity. By using the text, students try to answer important questions: What is a problem? Is there a process which will help to solve problems? Is more than one solution possible? During the workshop participants will engage in typical classroom activities that demonstrate the integration of many thinking and communication skills. There will be handouts and a demonstration video of a senior high school class.

**MORSE, OGDEN** **TUESDAY 10:30; ART 108**  
*English Teacher, Joel Barlow High School*

**Making Meaning in the Classroom: Skills, Perspectives, and Subject Matter** MID/HIGH, COLL, LANG

What is the curriculum for the courses we teach today? Is it the subject matter in which most of us were trained, the texts, the laws, the traditions that were the canon of our schooling? Or is it those skills which students need in order to assimilate data that are important to their lives? This dilemma is compounded by the variety of learning styles which students bring to the classroom. Thus the teacher is faced with the task of helping students in the same class to make meaning of material which they may perceive and acquire very differently.

This workshop will begin with a learning styles assessment. Then participants will engage in a series of exercises which illustrate conceptual and practical approaches to student learning: the analysis of visual and written material, close reading of texts, interpretation of data, and the use of the dialectical notebook. There will be considerable emphasis on critical thinking skills, collaborative activities, and performance assessment.

**MURPHY, DEBRA M.** **TUESDAY 10:30; STEV 3026**  
*Director of Graduate Studies in Administration, Saint Michael's College*

**FRAN TOOMEY**  
*Associate Professor of Education, St. Michael's College*

**Learnership/Leadership Model: "Traveling into the 21<sup>st</sup> Century"** BUS, COLL  
 Learning and leading are critical for future success in educational and industrial organizations as many have expressed, including, but not limited to, Argyris, Bennis, Senge, Weisbord. The Learnership/Leadership Model is built upon the concepts of development and interdependence. Development suggests that individuals can change only at their own pace, and organizations can change only as individuals change. Interdependence recognizes that success is dependent on a dialectic process between schools and workplaces, learning and leading. The Learnership/Leadership Model incorporates the contributions of both education and industry and integrates these contributions into a strategy for preparing today's students and workers to be tomorrow's learners and leaders. This is an interactive workshop where participants will problem solve in groups to learn, practice, and integrate the Learnership/Leadership Model.

**NAEHRBASS, JOSEPHINE** **MONDAY 10:30; STEV 3049**  
*Staff Development Coordinator, Agua Fria Union High School District*

**GAIL KENDALL**  
*Director of Chapter 1 Services, Agua Fria UHŞ/Rio Salado College*

**"Putting It all Together:" An Integrated Staff Development Model** c,  
 STAFF DEV

At Agua Fria Union High School in Avondale, Arizona, a unique staff development program has been established whereby all teachers, administrators,

and classroom support personnel receive weekly training in critical thinking, academic self-esteem, and technology. The program recognizes the challenges that students will face in the 21<sup>st</sup> century and is responding to these challenges by discarding existing paradigms and restructuring the focus and curriculum to meet the needs of global inter-dependence. Encouraged and supported by the administration, the program has been designed, developed, and implemented by teachers in the district. Presenters will explain the step-by-step process, discuss the formation of inter-disciplinary teams, and share strategies and techniques that participants can use to create their own meaningful critical thinking staff development program. In addition, this program satisfies the requirements of the North Central Outcome-Based Assessment Model.

**NORMAN, OBED** **TUESDAY 8:45; DAR 122**  
*Assistant Professor of Science Education, University of Georgia*

**Critical Thinking and the Education of Science Teachers: Building a Community of Meaning Makers** SCI, MUL-CULT, G

This paper will explore the relevance of critical thinking to the education of teachers in general and science teachers in particular. The first twenty minutes will be a formal paper presentation. Arguing from the perspectives of epistemology and the philosophy of science, the presenter will argue that the infusion of critical thinking into the education of science teachers will help them develop habits of mind that will *a)* enable them to present science in a meaningful way to their students and *b)* at the same time sensitize them to some of the core issues related to schools and schooling in a democratic society. The question and answer session after the formal presentation will be followed by the participants breaking up into small discussion groups that will explore vignettes related to points *a)* and *b)* above. A report back by the various groups and a final free discussion will conclude the session.

**NOSICH, GERALD** **SUNDAY 1:30; IVES (WARREN)**  
*Professor of Philosophy, University of New Orleans*

**An Introduction to Critical Thinking: What Is It? Why Should I Teach for It? How Can I Teach for It?** G, BEG

This session will provide a working, practical idea of what critical thinking is. The aim is not to provide a strict definition, but to describe it in a way that is usable — especially in the classroom — and to give a sense of how deep and robust the concept of critical thinking is.

Second, the session will make a case for how profoundly needed critical thinking is and — particularly when it is understood as the deep and robust notion it is — how profoundly lacking it is in education in general.

Finally, the session will provide some examples of how to teach for it and a basic model of how to rethink one's teaching to foster critical thinking at all educational levels. A question period will follow the presentation.

**NOSICH, GERALD** **MONDAY 1:30; SUMPR**  
*Professor of Philosophy, University of New Orleans*

**Critical Thinking in the Disciplines: The "Logic of" a Discipline** G, BEG

"Learning a discipline" is not at all equivalent to remembering a large body of specialized information or learning to use a particular vocabulary. Rather, though both information and vocabulary are important, learning a discipline is more accurately considered an ability to *think within the discipline*. To "learn biology," at whatever educational level, is to learn to "think biologically"; knowing sociology is knowing how to "think sociologically"; and so on.

What does thinking within a discipline consist of? It clearly has many aspects, but one of the most central is grasping "the logic of" the discipline. Getting hold of the logic of the discipline and learning to reason in terms of it is essential for our students.

An important aim of the workshop is to elucidate the concept of "the logic of a discipline." The workshop's primary aim, however, is for participants to work out an analysis of the logic of their own disciplines and to take some steps toward redesigning their courses so as to promote a grasp of the logic of the field on the part of their students.

**NOSICH, GERALD** **TUESDAY 8:45; SUMPR**  
*Professor of Philosophy, University of New Orleans*

**Some Nuts and Bolts of Critical Thinking: Interpreting What People Say** G, BEG

In concentrating intently on making our teaching more effective, we sometimes lose sight of the fact that there are essential skills involved in critical thinking, skills which we must foster in our students. To think critically at all, it is necessary to get adept at thinking in terms of the basics, the central concepts or elements of good reasoning. One of the skills students have most trouble with is the ability to give a reasonable interpretation of what people say, one that is accurate and fairminded. In a very similar way, good thinking is built on being able to identify and evaluate assumptions — our own, or those of others.

The problem is getting students to see what to do in order to develop these skills. A person's assumption, after all, is not just anything I may wish to attribute to the person; an interpretation is not accurate just because it is what I believe the person means. How do I get better at using these skills? What can I do to be more accurate and fairminded? This session focuses on giving accurate and fairminded interpretations.

**NOSICH, GERALD** **TUESDAY 3:15; IVES 119**  
*Professor of Philosophy, University of New Orleans*

**Learning to Think Critically Within a Discipline** G, BEG

Thinking critically within a discipline encompasses a number of overlapping abilities, dispositions, ways of acting, values and standards. Among these is

what may be called "the vision of the field." Each discipline has as part of it a certain vision, a way of seeing the world and of interpreting what is seen. Thus a sociologist will tend to look at an assemblage of people and see groups, cultural roles, and social forces at work; a non-sociologist may see only an assemblage of people. There is a very real sense in which practitioners of a field see different things from those seen by non-practitioners.

The workshop will begin with an overview of what is involved in learning to think critically within a discipline, but the bulk of the activity will be focused on two tasks: 1) working out the vision of the field as it applies to participants' own field and courses, and 2) working out the fundamental concepts that underlie the teaching of a discipline at an educational level. Each of these will be done with an eye on *teaching*.

**NOSICH, GERALD**

WEDNESDAY 8:45; IVES 119

*Professor of Philosophy, University of New Orleans*

**Some Nuts and Bolts of Critical Thinking: Identifying People's Assumptions** C, BEC

In concentrating intently on making our teaching more effective, we sometimes lose sight of the fact that there are essential skills involved in critical thinking, skills which we must foster in our students. To think critically at all, it is necessary to get adept at thinking in terms of the basics, the central concepts or elements of good reasoning. One of the skills students have most trouble with is the ability to give a reasonable interpretation of what people say, one that is accurate and fairminded. In a very similar way, good thinking is built on being able to identify and evaluate assumptions — our own, or those of others.

The problem is getting students to see what to do in order to develop these skills. A person's assumption, after all, is not just anything I may wish to attribute to the person; an interpretation is not accurate just because it is what I believe the person means. How do I get better at using these skills? What can I do to be more accurate and fairminded? This session focuses on identifying assumptions in an accurate and fairminded way.

**NOWELL, LINDA**

WEDNESDAY 8:45; STEV 3049

*Assistant Director, Center for Creative and Critical Teaching, Texas Wesleyan University*

**Critical Talk: Developing Critical Thinking and Critical Consciousness**

K-12, LANG, ECON

Robert Reich contends that the United States, as a member of a global community, is at a crossroads. Economically, our success in the emerging global economy depends on the critical thinking and creativity that our citizens, *all* our citizens, contribute to that economy. But even more important, these creative and critical citizens must also have, in the language of Paulo Freire, a "critical consciousness."

The solutions offered by Dewey and Freire demand a critical discourse — a conversation that allows members of the community, whether local or global, to analyze and evaluate their experiences and come to reasoned judgments on what to think and how to act.

This participatory session will focus on how we can create that kind of discourse in our classrooms — in our society.

**NWA, WILLIA L.**

TUESDAY 8:45; STEV 3072

*Educator of Secondary Education, Canton City Schools*

**Cultural Diversity: What Should Educators Do About It?** MUL-CULT, H RIGHTS, COLL, MID/HIGH

Multi-cultural education involves an interdisciplinary approach that stresses teaching strategies that affirm the right of students to be different and the responsibility of students to appreciate and respect the differences of others. For multi-cultural education to be effective, an holistic, transformational approach must be instituted. This approach enables the learners to view concepts, ideas, issues, themes, and problems from various ethnic perspectives and points of view. In addition to critically thinking of solutions that foster multi-culturalism, this presentation will discuss and brainstorm activities educators can implement in the classroom. The rationale for recognizing cultural diversity and the impact of changes that have evolved in our society and in our schools will also be discussed.

**O'BRIEN, JOHN**

SUNDAY 1:30; IVES 78

*Lecturer in Education, James Cook University of North Queensland*

**Thinking in the Workplace** HIGH, COLL, SCI, BUS

A significant issue facing many countries, companies, schools, and individuals is the importance of workplace thinking. This workshop will report on the thinking of a research scientist in the workplace as revealed by stimulated recall research techniques. The relation of scientific thinking in the workplace to scientific thinking in schools will be explored by comparison with the predominant thinking styles of a sixteen year old science student. The development of more effective student thinking in the classroom will also be discussed.

**O'KEEFE, VIRGINIA**

MONDAY 12:15; IVES 78

*Adjunct Assistant Professor of Communication, George Mason University*

**Empowering Students and Teachers Through Critical Thinking Research**

STAFF DEV, MID/HIGH, LANG

This workshop describes a study conducted in an English Department of a suburban high school of diverse socioeconomic background. Members of the faculty and the researcher cooperated in the study's design to determine what communication behaviors engendered critical thinking in regular and gifted ninth grade classes. Participants in this session will learn how to set

up similar studies in their own schools, what the findings of the study reveal, and how to design practical techniques that encourage students' improved critical thinking. Hands-on activities allow participants to experience different kinds of communication strategies. It is hoped that participants will leave the session with a practical base to begin looking critically at their own goals and expectations for that vast majority of students in the regular, "average" class.

**OGNIBENE, ELAINE R.**  
*Professor of English, Siena College*

MONDAY 8:45; STEV 3072

**Stories About Schooling: Multi-Cultural Fictions that Challenge and Create** MUL-CULT, COLL, FEM, MID/HIGH

I am proposing a paper that is interdisciplinary and multi-cultural in its research base and content, whose purpose is to promote a new way of thinking critically about moral and practical issues involved in teacher education and educational reform.

Contemporary literature often tells stories about female development within the world of diverse cultures. Examining works such as *Mean Spirit* (Hogan, 1990), *The Bluest Eye* (Morrison, 1970), *Annie John* (Kincaid, 1983), and *The Lesson* (Bambara, 1972), I will explain the role that schooling plays in the protagonist's story of moral growth and development. After critically analyzing that information in light of recent educational theory about learning as a social act, knowledge as a cultural artifact, and story as a central process in both teaching and learning, I plan to show how fictional stories can help us to raise pertinent questions about pedagogy, curriculum, and the process of learning in relation to gender, race, culture, and class in education.

**OGNIBENE, RICHARD**  
*Professor of Educational Studies, Seton Hall University*

MONDAY 1:30; IVES 35

**Thinking Critically about the Total Quality Movement in Education** STAFF DEV, K-12

This session will include three activities: 1) a paper discussing the implications of Total Quality Management (TQM) for K-12 education; 2) a discussion to clarify audience attitudes about this approach to educational reform; and 3) a focus group activity to elicit suggestions for educators who wish to explore or implement TQM in their schools.

The paper will briefly delineate the principles of TQM and discuss its spread from industry to healthcare and most recently to education. The author is concerned that there is almost no criticism of TQM as it has been applied in education and suggests several aspects of this approach which should be examined more carefully. The purpose of the discussion following the paper is to frame suggestions about a more thoughtful way in which the best components of TQM could be used without sacrificing educational aspirations that are higher than those ordinarily derived from a business perspective.

**OTTERBACH, RENATE**  
*Education Consultant, Region IX Educational Service Center*

MONDAY 3:15; IVES 45

**EVA HONSA-HOGG**  
*Educational Consultant, Region IX Education Service Center*

**Cooperative Learning and Critical Thinking: A Winning Combination** MID/HIGH, ADV, SOC STUD

Research tells us that cooperative, creative, and critical thinking skills are essential to success. The importance of these skills in business is steadily increasing. It is therefore logical that the higher the competence level of students in these areas the better adapted they will be to the economic market when they graduate. The implication of this research leads to the conclusion that teaching strategies should focus on these skills, and the teaching of those skills must become an integrated part of the curriculum. The focus of this session is on teaching strategies that can be used to accomplish the integration of cooperative, creative, and critical thinking skills without sacrificing content. The majority of the time in this session will be allocated to a simulation of these strategies using an inter-disciplinary unit. Modification to address specific subject areas will also be discussed.

**OXMAN, WENDY**  
*Director, Institute for Critical Thinking, Montclair State College*

MONDAY 10:30; CAR 68

**Many Faces of Critical Thinking** G

Critical thinking in educational practice can legitimately take many diverse forms. In this presentation, the goals of teaching for critical thinking will be discussed in the context of the taxonomy of educational objectives. Examples of different approaches to teaching for critical thinking, such as a) problem solving, b) creativity, and c) reasoning with probabilities, and a framework for planning for academic tasks toward critical thinking as an educational goal, will be presented and discussed.

**OXMAN, WENDY**  
*Director, Institute for Critical Thinking, Montclair State College*

MONDAY 3:15; DAR 122

**Case Studies in Teaching for Critical Thinking** MUL-CULT, G

This presentation will introduce participants to an approach to case study methodology, and share samples of case studies in teaching for critical thinking with a focus on social issues, collaboratively prepared by college and urban school faculty members.

**OXMAN, WENDY**  
*Director, Institute for Critical Thinking, Montclair State College*

TUESDAY 3:15; STEV 3026

**The THORP Game** MUL-CULT, G

Participants in this session will engage in this popular simulation game, designed for use with groups of teachers, prospective teachers, and students, to illustrate the purposes and outcomes of teaching for critical thinking for all students. A total of 40 participants may be accommodated.

**PARKS, SANDRA** TUESDAY 3:15; CAR 68  
*Co-Director, The National Center for Teaching Thinking*

**Using Graphic Organizers to Improve Thinking and Learning** G

This presentation will demonstrate how the use of graphic organizers provides simple but powerful tools for achieving both thinking skills and content objectives in the K-12 classroom. A variety of graphic organizers used to organize information, guide student thinking, and evaluate learning will be distinguished and demonstrated. Samples of the graphic organizers used in the demonstrations, as well as lessons in which they are employed, will be provided to the participants.

**PARNELL, SHANNAH** TUESDAY 8:45; NICH 166  
*Instructor of English and Rhetoric, University of Illinois at Urbana-Champaign*

**Re-Reading Hawthorne's 'A': Ideologies and Developing Critical Awareness in the Classroom** LANG, COLL, MID/HIGH

This workshop offers teachers of both secondary and college level literature courses a practical and dynamic approach to teaching literary texts and developing students' critical thinking skills at the same time. The first part of our presentation demonstrates how four interpretive strategies, each growing out of Marxist, feminist, deconstructive, or psychoanalytic theory, may be introduced to students. The second part of our presentation demonstrates methods by which such critical thinking skills as locating value conflicts and clarifying assumptions may be fostered. In this part of our workshop, we will propose at least ten specific methods for encouraging students to look at texts from new and varying perspectives and for stimulating non-teacher centered classroom debate. During the workshop, we will ask for participation in activities and will encourage questions.

**PAUL, RICHARD W.** TUESDAY 8:45; IVES (WARREN)  
*Director, Center for Critical Thinking and Moral Critique*

**How to Design Assignments and Activities (So That Students Learn How to Assess Their Own Performances)** G, TEST, BEG

In this session Richard Paul will: 1) explain and demonstrate how to design assignments that enable students to assess themselves, 2) provide some sample assignments (with sample student self-assessments), and 3) provide some practice in the art of assignment design. The basic principles that underlie this session are 1) self-assessment is essential to critical thinking and 2) writing assignments that lead to student self-assessment is a practical art that can be learned. As we develop this art, we transform our instruction into problem-based learning, our students then progress continually from one task in reasoning to another, developing skills and insights and, last but not least, mastering content as they go.

**PAUL, RICHARD W.** TUESDAY 10:30; IVES (WARREN)  
*Director, Center for Critical Thinking and Moral Critique*

**Pseudo-Critical Thinking: Beware! (How to Distinguish Authentic and Substantial Approaches to Critical Thinking from the Slick Counterfeits Now Sweeping the Educational Marketplace)** G, TEST, BEG

Sad to say, there is now a spate of pseudo-critical thinking materials and approaches sweeping the educational marketplace, some of them disseminated under the auspices of highly respected educational associations and groups. In most cases, these approaches are devoid of intellectual standards. Richard Paul will illustrate with materials from major publishers intended for classroom use and the California Department of Education. In this session, you will learn criteria for distinguishing critical thinking counterfeits from the "real thing". Why end up teaching "pseudo" critical thinking when it is perfectly possible to teach the real thing.

**PAUL, RICHARD W.** WEDNESDAY 8:45; STEV 1002  
*Director, Center for Critical Thinking and Moral Critique*

**Staff Development: If It Is Not Long-Term and Comprehensive, It Won't Work!** G, STAFF DEV, BEG

Staff development at all levels of education is typically ineffective. The reason is simple. In general staff development is short-term, fragmented, and does not deal with the root causes of problems in education. Richard Paul presents a new model for long-term and comprehensive staff development design. He is keenly interested in field testing his model at both the K-12 and college/university levels.

**PAUL, RICHARD W.** WEDNESDAY 10:30; CAR 68  
*Director, Center for Critical Thinking and Moral Critique*

**"Outcome-Based," "Cooperative," "Meaning-Centered," "Authentic," "Re-Structured," "Constructed," "Performance-Driven," "Multi-Cultural," "Self-Esteem," "Thinking," and "Learning" — Come Find Out What Is Right and Wrong with the Jargon of the Day** G, TEST, BEG

K-12 education moves from one set of buzz words to another. What is right and wrong with the buzz words of today? Richard Paul briefly explains how each of the popular buzz words in education today can be used appropriately, and how they are often used to create a smoke screen for the status quo.

**PENDLETON, WILLIAM** MONDAY 3:15; STEV 2065  
*Assistant Superintendent of Instruction, Tulare Union High School District*

**Instructional Design for the 21<sup>st</sup> Century: High School Classrooms That Nourish Critical Thinking for All Students** HIGH, MUL-CULT

In this workshop, Dr. Pendleton presents an instructional paradigm for the high school classroom of the 21<sup>st</sup> Century. He first predicts the physical, emotional, and learning characteristics of future students and then recom-



mends instructional practices that will maximize learning and foster critical thinking. The design is timeless, crosses all disciplines, and is supported by the educational philosophy of the reform movement in California. Participants will receive instruction, modeling, and practice in "close" or "active" reading, discuss and contrast the concept-driven curriculum versus the fact-centered curriculum, and experience cooperative and collaborative learning. Provocative issues will include the presenter's beliefs that all students should be mainstreamed, and that students of all abilities are capable of critical thinking.

**PETERSON, JOEL** **SUNDAY 3:15; STEV 3030**  
*Faculty Coordinator, Critical Thinking Project, Minnesota Community Colleges*

**MARY ASPNES**  
*Professor of Developmental Education, Lakewood Community College*

**CONNIE STACK**  
*Instructor of Nursing and Public Health, Minnesota Community Colleges*

**Thinking on All Four Burners: A Holistic Approach Which Recognizes Diversity in Good Thinking** COLL, LANG

Based on the work of more than 200 faculty involved in the Minnesota Community College System's project for critical thinking, this session will present a holistic model of critical thinking which includes: 1) thinking centered on facts, 2) thinking which draws on imagination, 3) thinking which emphasizes reasoning, and 4) thinking which focuses on values. Since each individual in the classroom (including the teacher) has developed some of these types of thinking at the expense of not developing others, this model provides instructors and students with a framework for valuing diversity in thinking while recognizing areas needing further development. After introducing the model, the major part of the session will be devoted to demonstrating three teaching strategies which push students (and teachers) to think in all four dimensions.

**PETERSON, JOEL** **MONDAY 8:45; STEV 3040**  
*Faculty Coordinator, Critical Thinking Project, Minnesota Community Colleges*

**CONNIE STACK**  
*Instructor of Nursing and Public Health, Minnesota Community Colleges*

**MARY ASPNES**  
*Professor of Developmental Education, Lakewood Community College*

**Strategies for Developing Critical Thinking Which Is Factual, Imaginative, and Value-Conscious as Well as Logical** COLL, ADV

As important as the role played by logical reasoning in critical thinking is, it is matched by the importance of the roles played by three other kinds of thinking: clarity and fairness in gathering facts, imaginativeness in trying to put facts into alternative perspectives, and honesty in appraising the impact of the values involved in the issue in question. In this session we will

demonstrate four different kinds of critical thinking assignments from four different disciplines, each aiming at developing one of the four thinking functions. We will conclude by presenting a model of critical thinking which both integrates all four modes of thinking and provides further rich implications for teaching and learning.

**PIERCE, GLORIA** **MONDAY 10:30; IVES 78**  
*Associate Professor of Counseling, Human Development, and Educational Leadership, Montclair State College*

**The Centrality of Critical Thinking in Educating for Diversity** COLL, BUS, MUL-CULT, SOCIO

The fact of cultural diversity in the United States and the challenges it poses regarding issues of social justice and equity, economic development, and lifelong learning makes education for diversity perhaps the most pivotal and crucial undertaking of our educational systems today, not only in schools, colleges and universities, but also in the workplace.

This important effort cannot take place without developing the attitudes and skills of critical thinking: a spirit of inquiry, the willingness to engage in the dialogue of human conversation, to challenge assumptions and beliefs about others, and the interpersonal and problem-solving skills necessary for understanding, valuing and managing differences.

This presentation will examine the role of critical thinking in developing the attitudes and skills needed in order to make diversity a strategic advantage in creating an equitable, just, caring, and productive society.

The session will include a summary of the presenter's paper followed by a structured exercise involving small group tasks and whole group discussion.

**PINTO, ROBERT C.** **MONDAY 3:15; STEV 3040**  
*Associate Professor of Philosophy, University of Windsor*

**Can Learning Logic Help Students Improve Their Thinking?** ADV, PSYCH, COLL

In their early stages, cognitive science and cognitive psychology drew many of their models of good thinking from the paradigms developed by traditional logic. That logic was designed to deal with information that is encoded linguistically. Important recent theoretical and empirical developments (especially connectionist or PDP accounts of cognitive processes) suggest, however, that the manipulation of propositional or linguistic content is a "surface" phenomenon and that much of the cognitive "action" takes place at pre-linguistic levels. If that is true, it has profound implications for questions about the role logic should play in teaching critical thinking. This presentation *a)* will assess the epistemological and pedagogical implications of these recent developments and *b)* will propose specific strategies for making judicious use of logical concepts in the present intellectual context — a context in which our understanding of the very nature of thinking is undergoing significant evolution.

**POAGE, MELVIN**

*President, Materials & Technology for Education*

**MONDAY 10:30; DAR 122**

**A Critical Thinking Approach to Mathematics** MATH, COLL, MID/HIGH

If education is to accomplish a positive change in student learning, then our teaching must improve a student's ability to "Think and Produce Positive Outcomes". A student's ability to "Think and Produce Positive Outcomes" is critical thinking.

The following questions about critical thinking must be addressed: 1) Is it necessary to teach critical thinking? 2) What is critical thinking? 3) Is there room in the curriculum to introduce critical thinking? 4) What other closely related topics to critical thinking will also have to be taught? 5) What changes in classroom instruction are necessary for teaching critical thinking? 6) What changes in materials are needed to practice critical thinking? 7) How is critical thinking taught? 8) How is critical thinking evaluated?

**POLLARD, JIM**

*Curriculum Specialist, Spokane Falls Community College*

**SUNDAY 3:15; STEV 3008**

**A Different Way of Thinking** ADV, BUS, H CON, G

From Albert Einstein to Hillary Clinton more individuals are supporting "a different way of thinking" to change the creative destruction approach of our global society. This session will explore education's role in developing new ways of thinking. Learning activities that promote the development of new ways of thinking will be presented with models from Headstart, K-12, college, and business and industry training. Creating new conditions in schools and society requires that the basic ideas about learning must be changed. Join together with others to explore what teachers can do in their classroom to involve learners in developing new and different ways of thinking.

**POLLARD, JIM**

*Curriculum Specialist, Spokane Falls Community College*

**MONDAY 8:45; STEV 3008**

**Who Is the Boss? (An Empowerment Workshop)** COLL, BUS, H CON

Edward Deming, Lester Thurow, Peter Senge, and many others are pointing to a new relationship between management and the work force. Empowerment is at center stage of this discussion. This session will explore the challenges of empowerment and turning the workplace and classroom into a "learning environment." Comparing the application of empowerment in the classroom to the application of empowerment in the workplace will make this session of interest to both the education and business community.

**POLLARD, JIM**

*Curriculum Specialist, Spokane Falls Community College*

**TUESDAY 1:30; DAR 137**

**Learners Can Achieve 100% (A Self-Assessment Workshop)** TEST, ADV, BUS, G

The premise that learners need to distinguish for themselves what they know from what they don't know, provides the focus of this presentation.

The development of the learners' self-assessment skills is a key element in empowerment and is important to critical thinking as well. This session will present a reflective thinking model used for assisting learners in developing self assessment skills as well as assessment criteria. Exploring ideas for self-assessment activities and strategies in the workplace and the classroom will take participants beyond the mechanics of self-assessment with a discussion of "Grade expectation".

**POPE, RICHARD**

*Director, Gateway to Great Thinking*

**SUNDAY 12:15; STEV 3008**

**The Debating Process Instills Critical Thinking in Your Elementary School Students and Makes You Thinner, Sexier, and Attractive to Movie Stars!** ELEM, BEG

Enjoy 90 minutes actively participating in the debating process. Learn how your elementary school students, from kindergarten through eighth grade, can research issues and persuasively present positions. Become energized as your students use such critical thinking terms as 'Clear, Precise, Significant, Relevant, Accurate, Deep, Fair, and Consistent.' When your students can prepare and evaluate their own arguments and constructively critique the arguments of others, they gain important skills and values needed for the opportunities and challenges of the 21<sup>st</sup> century.

**POPE, RICHARD**

*Director, Gateway to Great Thinking*

**TUESDAY 3:15; STEV 3008**

**Elementary School Language Arts and Critical Thinking — The Process for Generating a Nation of Active Learners** ELEM, LANG

Enjoy 90 minutes actively coordinating the Language Arts and Critical Thinking processes. Learn how your students can gain such an enthusiasm towards language arts that they hunger to read and write. See how such critical thinking terms as 'Clear, Precise, Significant, Relevant, Accurate, Deep, Fair, and Consistent' can energize all your language arts lessons. Learn how students can thrive in an atmosphere of positive interaction with the printed word, the spoken word, and critical thinking. Give your students the language arts skills and values to meet the opportunities and challenges of the 21<sup>st</sup> century.

**PRITCHARD, FLORENCE FAY**

*Associate Vice President of Academic Affairs, Salisbury State University*

**MONDAY 10:30; NICH 166**

**Negotiating and Using Frames to Develop Specific Critical Thinking and Writing Skills** LANG, G

This session demonstrates how English and language-arts teachers can teach critical thinking and writing simultaneously to students in grades 4-14. The session demonstrates how to transform specific skills such as explaining, categorizing, comparing and contrasting, evaluating, interpreting, justifying with reasons, applying principles and deriving propositions into frames for

critical thinking and writing. The session opens with a paper explaining frame negotiation and use, then summarizes the model underlying this approach to teaching critical thinking and writing. Next, participants learn how to construct writing assignments that help students create thinking-writing frames. This involves participants in identifying and defining specific thinking and writing skills, incorporating the skills in writing assignments, negotiating steps essential to carrying out the skills and transforming steps into question sets that generate substantive discourse, and that can be used in many other situations as fundamental thinking strategies.

**QUINA, JAMES HENRY** TUESDAY 12:15; NICH 173  
Associate Professor of English Education, Wayne State University

**Teaching Conflict Resolution Through Metaphor** LANG, H CON, H RIGHTS, SOC STUD

A participatory workshop based on the world hypotheses of Stephen C. Pepper and the teaching methodology of Georgi Lozanov. Participants will be given an overview of Pepper's pluralistic system and of Lozanov's methodology, followed by a reading of "The Story of the Great Rock," a metaphoric story containing embeds of Pepper's world hypotheses. The story will be read with music. Each tribe described in the story represents one of Pepper's four world views: formism, mechanism, contextualism and organicism.

Participants will draw their interpretations of the story, role play as tribal members, identify tribal beliefs, and share their world views with members of a different tribe. The task will be to discover ways of relating to difference other than polarization or domination. Pepper's own synthesis of a fifth world hypothesis, selectivism, will be examined as a model of conflict resolution.

**RASKIN, JONAH** TUESDAY 12:15; NICH 204  
Chair, Communication Studies Department, Sonoma State University

**Abbie Hoffman: Critical Thinker?** MEDIA, POL, SOC STUD, LANG

The paper will present a discussion of the critical ideas of Abbie Hoffman, and will focus on his most important book, *Revolution for the Hell of It*, which was published 25 years ago, in 1968. "Abbie Hoffman: Critical Thinker?" will examine Hoffman's ideas about cultural revolution, and will locate his thinking in the context of the social and political changes in the year 1968. It will explore his relationship to the media, his views on the power of myth, and his ideas about books and the culture of the book. Hoffman will be defined as a crucial American figure of the 1960s, and *Revolution for the Hell of It* will be analyzed as a quintessential post-modernist text.

**REED, JEFFREY** TUESDAY 10:30; STEV 1040  
Teacher, Windsor Middle School

**SCOTT SCHOEPP**  
Math & Science Teacher, Windsor Middle School

**Illustrations and the Information Age: Using Visuals to Stimulate Critical Thinking** COMPUTER, MID, SCI, SOC STUD

How teachers can use pictures to stimulate critical thinking, using examples from the California middle school science and social science curricula. A

major part of the presentation will give teachers hands-on practice, including how to actively engage students in producing Jeopardy-style games created and played on Macintosh computers.

**REICH, K. HELMUT** TUESDAY 10:30; STEV 3049  
Research Associate, Department of Education, University of Fribourg

**SANDRA PARKS**  
Co-Director, The National Center for Teaching Thinking

**Spirituality and Critical Thinking** PSYCH, MUL-CULT

In this participatory workshop we shall first define spirituality and then discuss the process of examining it in the light of critical thinking. Examples of this process can be taken from the experience of scientists, spiritual persons, and others. We will explore the "usefulness" of spirituality both for problem solving and personal development as well as the role of role of reason in expanding spiritual life.

**REYES, DOMINGA L.** MONDAY 10:30; STEV 3072  
President, World University of America (Ojai)

**KEVIN MCCORMACK**  
Dean of Student Affairs, World University of America (Ojai)

**Global Education: The Way to Peace** MUL-CULT, PEACE, COLL, MEDIA

*Definition:* Global Education is a program intended to create a global perspective on the current issues which face humanity at the threshold of world transformation.

*Aim:* To promote an understanding and appreciation of humanity and the diverse religions, cultures, and ideologies. *Goal:* World Peace through Education. *Method:* A curriculum that will enable people to realize: A) There is only one home: Earth. There is only one race: humanity. There is only one religion: love. B) Peace in society is dependent on an Ethical Orientation Program, Cooperative Economics, not competitive. C) Practical solutions for current problems such as militarism, environmental deterioration, economic problems, psychological addictions, increasing population, and various intolerant attitudes such as racism, sexism, nationalism, and dogmatism.

**RICH, GREGORY** MONDAY 8:45; NICH 304  
Assistant Professor of Philosophy, Fayetteville State University

**Critical Thinking at Fayetteville State University: An Initial Assessment** COLL, TEST

Critical Thinking has been taught at Fayetteville State University since the fall of 1989. What was the basis for instituting this course? How was it planned? What is the course like today? Is there evidence that the course is effective? This presentation reviews the history of the course and then checks the effectiveness of the course by analyzing pretest/post-test data from over 2000 students. The paper presented was co-authored by Dr. Akbar Aghajanian.

**RIPPY, EDWARD**

MONDAY 12:15; STEV 3046

*Student of Educational Psychology, California State University at Hayward*

**The Multiple Costs of "Defense:" Spending Money, Freedom, and Blood to Protect "Our" Vital Interests Around the Globe** PEACE, MEDIA, ECON, PSYCH

Military related spending comprises about three fourths of discretionary Federal spending, consuming approximately one half of Federal income tax revenues. Proponents claim that this bolsters our national economy, protects access to vital raw materials and energy sources, and defends freedom and democracy worldwide; opponents claim that it subverts the national economy in favor of a small power elite, precludes equitable use of raw materials and development of alternative energy, and defends totalitarianism and oligarchy worldwide. We will examine (critically, of course) these competing claims, with emphasis on the role of the press in shaping public opinion on these issues and the role of education in preparing people to make well considered decisions and influence public policy. We will also attempt to place U.S. military intervention in a context of global economic power struggles and to estimate the costs to society of "competitiveness" conceived in these terms.

**ROBB, JEAN**

TUESDAY 12:15; STEV 2083

*Director, Successful Learning Institute*

**HILARY LETTS**

*Deputy Director, Successful Learning Institute*

**Turning Critical Thinking into an Adventure for All c**

*Process Learning* is a humanistic and holistic method. It enables individuals or groups to discover successful strategies for learning and coping in their ever changing lives. Armed with these strategies, people of any age or ability feel empowered to take responsibility for their own learning. They begin to see learning as a stimulating and exciting adventure. *Process Learning* creates a safe environment where individuals are prepared to take risks, and recognize and delight in their new achievements. *Process Learning* can be used by any individual or group, in any situation; a large claim but true. In this workshop participants will be introduced to the theory and given the opportunity to see and experience it in practice. Every person i.e., managers, teachers, parents, students or employees need support to guide them when implementing an effective critical thinking program. *Process Learning* will keep them on the path of the best practice by reminding them of the theory and philosophy which created the practice.

**ROSENBERG, ERNEST**

MONDAY 10:30; STEV 1040

*Director, PEMD Education Group*

**What Are the Most Relevant Science and Social Science Curricula for the Future?** COMPUTER ASST ED, ENV, ECON, COLL, HIGH

What are the issues that will most profoundly affect our student's lives and the lives of their children? About what do they need to think critically in their household and professional lives and in the voting booth? Together

we will examine these questions and see if an answer is economics, environment, and demographics. If they are a valid answer, then it is strongly implied that our science and social science curricula need to be reorganized. Perhaps the earth, life, physical, and social sciences need to be taught within the context of economics, environment, and demographics, rather than mostly the other way around.

In addition, in order for our students to think critically in these areas, they need to have ready access to large amounts of relevant numerical data and a means for the non-numerically sophisticated students to effectively analyze and synthesize this data. Computer software (Macintosh) will be demonstrated which enables this and consequently provides tools with which to develop critical thinking skills.

**RUDERMAN, RENEE**

MONDAY 3:15; STEV 3030

*Assistant Professor of English, Metropolitan State College of Denver*

**Reading the Spaces Between Words: A Critical Inquiry into Toni Morrison's Use of Language in *The Bluest Eye*** FEM, LANG, COLL

In this interactive workshop, participants will be asked to read passages from Toni Morrison's novel, *The Bluest Eye*, after viewing a videotape featuring the author, and, through directed discussion involving critical thinking and written exercises, to discover the iconoclastic and convention-breaking properties of Morrison's prose. Morrison's intention is to subvert literary traditions, to "feminize" literature, to "break the back of words" in order to force readers from discomfort to a new celebration of language and literature.

**RUGGIERO, VINCENT RYAN**

MONDAY 3:15; DAR 112

*Author and Consultant*

**Who's to Say What's Right and Wrong?** G, H CON

Among the most interesting exercises in critical thinking are those that involve ethical issues. Unfortunately, many students regard such matters as purely relative and subjective, and as a result they are indisposed to conduct thoughtful inquiry, consider alternative views, and make careful judgments. This presentation will address the question, "How can teachers guide students beyond moral relativism without leading them to the opposite extreme, moral absolutism?" It will also present a framework for moral judgment that takes little time to teach and can be used in a wide variety of courses. Finally, it will demonstrate how to create challenging exercises in moral judgment.

**RUGGIERO, VINCENT RYAN**

TUESDAY 8:45; STEV 1002

*Author and Consultant*

**Teaching Thinking Across the Curriculum c**

Thinking instruction is too important to be confined to a single course or a single department; it should be emphasized across the curriculum. Achiev-

ing this objective necessitates transforming faculty hesitancy (or outright resistance) into enthusiastic support. This presentation will suggest how that transformation can best be accomplished. It will also outline a teaching approach that joins creative and critical thinking and incorporates a number of other educational reform ideas; notably, collaborative learning, problem-based instruction, outcome-based education, case study method, and writing across the curriculum.

**RUGGIERO, VINCENT RYAN**  
*Author and Consultant*

TUESDAY 1:30; STEV 3008

**Critical Thinking and Total Quality Management** BUS, G, STAFF DEV

In little more than a decade the "quality movement" that made Japan a leader in the world market has become a leading reform initiative both in American business and in educational administration. What is not generally recognized is that TQM and the critical thinking movement have much in common. Both reject the pessimistic view of the human mind that has dominated American culture throughout this century. And both depend on the cultivation of careful observation and logical reasoning. This presentation will explore these common elements and present a TQM model that incorporates the insights and strategies of critical (and creative) thinking.

**SANCHEZ, ADOLFO**

*Associate Professor of Education, Cayey University College*

TUESDAY 3:15; NICH 204

**LUZ E. LOPEZ**

*Professor of Education, Cayey University College*

**Making Connections** K-12

Participants will involve themselves in the development of a concept teaching technique that allows a teacher to guide students in an in-depth study of any concept, be it concrete or abstract. This instructional technique requires looking at a concept from various points of view. After discussing the essence and main attributes of the concept, the group is guided in the making of as many connections as possible to other concepts and life experiences through the use of questioning. The technique is ideal for any subject content, especially if an interdisciplinary approach is sought.

**SCHEFF, THOMAS J.**

*Professor Emeritus of Sociology, University of California, Santa Barbara*

TUESDAY 10:30; STEV 3030

**Alienation in Families and Classrooms: Repairing the Bond** ADV, H CON, SOCIOL, PSYCH

There is by now a vast literature which suggests that children can have a significant learning experience only when there is a *secure bond* with the parent or teacher. I will show a videotape and distribute transcripts which suggest the depth of alienation between children and their teachers and parents. The handouts and discussion will show how to analyze verbal and nonverbal discourse in order to assess the state of the bond. I will use this

same material to suggest how the situations portrayed might have been used to repair the bond through the use of what Satir called "leveling".

**SCHWARTZ, JUDITH**

*Director, Scarsdale Teachers Institute*

MONDAY 3:15; STEV 3077

**Developing Reflective Practitioners: How Teacher Research Leads to Improved Critical Thinking and Classroom Instruction** K-12, STAFF DEV

Throughout their careers, teachers expand their teaching horizons by asking questions about what their students are learning and by devising ways to improve student performance. In this interactive session, participants will learn about classroom research programs designed to encourage teachers to investigate significant questions of teaching and learning. Participants will learn how the program functions, examine in some detail the research projects that have been developed, and assess the impact these programs have had on school culture and student learning. Participants will learn the impact teacher research has had on improving teachers' critical thinking abilities, assessment techniques and classroom management skills.

This program, one of many in a broad based teacher led staff development organization, supports inquiry as central to the school and district. Also, participants will have an opportunity to analyze the staff development structures that develop and support high expectations for teachers and students.

**SECCO, THOMAS**

*Professor of English and Philosophy, Triton College*

TUESDAY 10:30; STEV 3040

**The Formation of Knowledge and the Mission of Intelligence** ADV

The acquisition of knowledge is a form-giving activity. It is a process of structuration. What is the role of tradition and innovation in the formation of knowledge? What is the influence of language? What is the function of reason, of imagination, of conscious experience and of empathy? How does one incorporate the constraints of diversity both internationally and intranationally within the discussion of how knowledge is formed? Finally, how does a human being form knowledge in the age of the information "explosion"? Can we remain "knowers" in a convention of "users"?

The presentation will be one in which my remarks will be heuristic, and I will actively seek the participation of the audience in order to engage in dialogue. I would like an audience of diverse background, for I would like the discussion informed not only by theory and structured observation but by practice and institutional considerations as well. I believe that this is one of the most crucial questions that confronts us as a species and a people.

**SHELLEDA, LEAH**

*Instructor of Humanities and Philosophy, College of Marin*

SUNDAY 1:30; DAR 137

**Does Logic Teach Critical Thinking?** COLL, TEST, LANG, ADV

Ever since Aristotle, educators have believed that logic was not only the means of philosophical argumentation and proof, but the "method of

choice" to teach critical thinking. (The State of California still defines critical thinking in terms of the language and content of a logic course.) Leah Shelleda decided to test this assumption by using Classroom Assessment Techniques (CATS) to evaluate what her community college students were actually learning in her logic courses. In this workshop, she will create a discussion of what critical thinking is, and present the results of her two-year study and the impact that the study has had on her teaching and her relationship with her students. She will then work with participants in the workshop to consider problem areas in their own classrooms (regardless of subject matter), and how to devise Classroom Assessment Techniques to evaluate, refine and modify their approach in the classroom.

**SILVERMAN, JANIS L.** TUESDAY 8:45; STEV 2065  
*Enrichment Coordinator, Lincolnshire-Prairie View S.D. 103, Sprague School*

**Economics for Kids** ECON, K-12, SOC STUD

Children today are facing a challenging international market place. To prepare them for these challenges, Janis Silverman has developed techniques for integrating economics into the existing social studies, science, math, and language arts curricula by taking students through the developing markets in history. Her workshop begins with a multi-media presentation, a journey through markets of the world, followed by a seminar including interactive discussion and workshop time. Participants will develop models and ideas using critical and creative thinking to develop creative enrichment experiences for children. Workshop participants are recommended to bring their social studies and language arts curricula and read *Forums, Fairs, and Futures* by Janis Silverman.

**SKEWES-COX, ROBIN** TUESDAY 8:45; STEV 3046  
*Lecturer, Academy of World Studies*

**BENNET SKEWES-COX**  
*President, Academy of World Studies*

**How to Think About War and Peace, Part I** H CON, PEACE, G

War: Definitions and examples. What is the problem? "There have always been wars." What are the "causes"? A highly critical look at one of these. Ethology. Biology. Psychology. Are we as individuals "warlike"? We are animals, animals are "aggressive", therefore we are aggressive. Konrad Lorenz's "On Aggression". Freud. If we are "peaceful" it is because we are "repressed"? Other "causes": language barriers, nationalism, trade competition, cultural misunderstanding. Differences resulting in lack of "community". Defining "community". How much community is necessary to make us "peaceful"?

What is the context in which we look at the various facets of the problem "war"? War as an institution. The planning for and organization of war as a rational occupation. Sovereignty. The psychology of war. Belief in its inevitability. Reluctance to be optimists. The mistake that "realism" dictates pessimism. The last 50 years: A case for optimism *and* realism. Why not abolish the institution of war?

**SKEWES-COX, BENNET** TUESDAY 10:30; STEV 3046  
*President, Academy of World Studies*

**ROBIN SKEWES-COX**  
*Lecturer, Academy of World Studies*

**How to Think About War and Peace, Part II** H CON, PEACE, G

Peace: Connection between 1) the goal of abolishing war as a previously acceptable human institution and 2) creation of the new structural machinery required to achieve that goal. Why "war" is an integral part of the United Nations. What other approaches are there than voluntary pacifism or military might? Difference between "truce" and "peace": unenforceability and enforceability. Types of "truce" mistakenly called "peace": tribe, city, city-state, nation state. World? International anarchy. Minimal requirements for *enforceable* world peace: how to achieve disarmament with safety? International law vs. enforceable world laws, powers of government. The indispensable key: *Individual Accountability*. Enforcement: police action vs. military action. 180 + nations. What is a nation? What can "it" do? How to "try" or to "punish" a nation? World laws: Separating the guilty from the innocent. Federalism. "Sovereignty". "Subsidiarity". Global institutions for global issues. What next? Practical plans for the short and long term.

**SKOOG, KIM** MONDAY 3:15; STEV 2083  
*Associate Professor of Philosophy, University of Guam*

**DOMININA K. CALLAGHAN**  
*Associate Professor of Nursing, University of Guam*

**Ways to Encourage Critical Thinking in Medical Ethics Classes** HEALTH, ETHICS

This workshop will share experiences and class projects and activities that have proved to be useful in getting students to think critically about health related ethical issues. The emphasis will be placed on sharing experiences (good and bad) between the workshop coordinators and those attending the workshop. Workshop participants will be asked to actually partake in some of these activities and then comment on their experiences regarding the kinds of critical thinking skills they utilized. The projects described in the workshop are designed to make participants discover the root moral factors and corresponding moral intuitions applicable to such issues as euthanasia, suicide, and patient care. When utilized in the classroom, these activities will force students to identify, develop, and support their particular positions and challenge alternative positions generated during class discussions.

**SKOOG, KIM** TUESDAY 1:30; STEV 3072  
*Associate Professor of Philosophy, University of Guam*

**A Cross-Cultural Study of the Interplay Between Reason, Revelation, and Realization** MUL-CULT

In many minds, the Western tradition is most associated with the faculty of reason and its resultant industrialization and economic wealth. In contrast,

the Eastern traditions are viewed as consumed with meditation and spiritual introspection, and its ensuing third world poverty and underdeveloped economy. Yet even the casual observer of Asia, and in particular the Pacific Rim, should be aware of the inaccuracy of this stereotype given the strong presence of Japan, Korea, Hong Kong, Taiwan, and Singapore in world economics. Furthermore, in spite of the identification of materialism and economic liberalism associated with Western culture, its spiritual, intuitive, and artistic tendencies are central to its identity and strength. In this paper, I will make a departure from the usual East-West comparative approach and propose to analyze jointly the varied modalities of inquiry found in assorted intellectual traditions around the world. It will be the thesis of this study that all great traditions share common epistemic modalities in the quest for truth and understanding.

**SLADE, CHRISTINA**

**MONDAY 10:30; IVES 45**

*Senior Lecturer, Faculty of Communication, University of Canberra*

**Critical Thinking in Groups** COLL, MEDIA, LANG, TEST

Our society requires not just competent critical and creative thinkers: it requires thinkers capable of team work. However, our paradigmatic images of thinkers are of isolated individuals. This paper both proposes an account of critical thinking as a group activity, and reports on a study of the teaching of critical thinking in group at levels ranging from the elementary classroom to graduate school.

If critical thinking is essentially a group activity, then the teaching of critical thinking is essentially, not incidentally, through discourse. The study examines a range of classroom discussions dealing with a range of topics, including information science, communication and critical thinking skills themselves. The discourse of these activities is analyzed using techniques derived from systematic linguistics. The video presentation gives an example of such an analysis. The workshop session will be a discussion of a brief text, in which the structures of a critical discourse might be manifested.

**SMITH, KATHERINE Z.**

**SUNDAY 3:15; STEV 3046**

*Instructor of Psychology, Chapman University*

**HARRIET CHAMBERLAIN**

*Educational Consultant, Thinking Possibilities*

**Global Peace Games: A Role-Play Using Lawrence Kolberg's Stages of Moral Development** PEACE, POL, PSYCH, H CON

This is a participatory workshop to stimulate verbal wrestling about conflict resolution between countries. Players will be heads of state who will practice ethical stages of moral development. They will define world problems, role play solutions and analyze outcomes. Knowledge about the world is useful but not as important as the emotional ability to exercise intellectual virtues. And, players are asked to check their weapons at the door.

**SMITH, LISA**

**TUESDAY 3:15; IVES 35**

*Public Policy Consultant*

**JERALDINE C. DAY**

*Project Director, Amador County Health Department*

**U.S. Tobacco in the World Market: A Global Economic and Social Dilemma** HEALTH, ECON, BUS, MEDIA, POL

The strength of the tobacco industry in the U.S. and its expansion into the world market poses a serious dilemma between an industry's economic viability and the social consequences to the health and welfare of the society. Are our children and policy makers equipped with the skills necessary for thinking through the social and economic costs to nations as U.S. tobacco companies blanket the globe with cigarettes? Should our government regulate, subsidize, provide tax incentives and enhancements for an industry whose addictive product is both legal and lethal? Are the economic, ethical and human costs of global expansion of the tobacco industry worth the high performance stocks, jobs created by the industry, revenues received from taxes, and the sponsorship that the arts, sports, minority and youth groups receive? This workshop presents an important opportunity to: 1) apply critical thinking skills to this economic and social dilemma; 2) examine what our responsibilities are; and 3) begin deliberative dialogue toward creating a solution.

**SMITH, R. SCOTT**

**WEDNESDAY 8:45; STEV 3072**

*Assistant Professor of Psychology, Utica College of Syracuse University*

**A Framework for Applying Critical Thinking to Inter-Cultural Encounters** MUL-CULT, H CON

A critical thinking perspective will be essential to managing problems of cultural diversity, which is a central challenge to business and education in the 21<sup>st</sup> Century. This workshop will include the following: 1) Cultural constraints on models of critical thinking and their use; 2) How specific critical thinking strategies can be used to compensate for such constraints; 3) Introduce the concept of *behavioral ecology* as an analytic model and guide for constructive intercultural communication; and 4) Engaging the participants in an exercise which will require them to analyze scenarios and devise specific strategies and messages based on the preceding discussion. The purpose of this exercise will be to enable participants to enhance their ability to apply critical thinking strategies to solving problems in intercultural communication.

**SMOCK, DAVID**

**TUESDAY 12:15; DAR 139**

*Chair of History and Politics, Charles Wright Academy*

**Thinking Critically About Nature: Using Critical Theory** ENV, SOCIO, SOC STUD

If one wants to explicate the relationship between human society and nature, one of the most lucrative intellectual traditions is that of Critical Theory (also known as the Frankfurt School). At the core of this philosophi-

cal tradition we find that a critical theory of nature is a sine qua non of a critical theory of society. Since the purpose of critical theory is to explore and propose a resolution to the dialectic of domination, a component of that project is to introduce the idea of a reconciliation with nature. This paper will introduce the thought of Theodor Adorno, Max Horkheimer, Herbert Marcuse, and Jurgen Habermas and their critique of modernity, enlightenment, and reason. In doing so, this paper will create a framework for critically analyzing the relationship between nature and society which can be used as a point of departure for educators of environmental and social issues.

**SPARAPANI, ERVIN** **MONDAY 1:30; STEV 2065**  
Associate Professor of Teacher Education, Saginaw Valley State University

**The Thinking/Learning System: A Strategy for Independent Thinking and Learning** C

This session will introduce participants to the Thinking/Learning System. Thinking/Learning System is an instructional plan appropriate for all educational levels (elementary through adult and university) that couples brain-compatible learning with selected levels of Bloom's taxonomy (knowledge, analysis, evaluation, application) and four reasoning strategies (information gathering, critical thinking, decision-making, creative thinking). Participants will be presented information about the system and its application in an open discussion format. Also, in small groups, participants will have the opportunity to analyze examples of the System as designed and used by teachers. Additionally, participants will have the opportunity to develop a model of the Thinking/Learning System for their own use.

**STEEDMAN, CARROL** **MONDAY 3:15; STEV 3026**  
Director of Continuing Education, University of Nevada, Las Vegas

**Critical Thinking at the Work Site, in Developmental English Classes, and in Continuing Professional Education: Argument and the Case Study** COLL, LANG, BUS, H CON

The teaching of critical thinking in work-site "training" classes has long been problematic — as it has been in developmental English classes, or in short Continuing Professional Education classes. The "wisdom" has it (or had it) that "workers" didn't need critical thinking; developmental English students needed literacy skills "first"; and that Continuing Professional Education didn't have "time" to teach it. However, this workshop will illustrate the succinct teaching of inductive argument within an inquiry, decision making framework. A case study also is used. From the case study students invent their inquiry, create lines of argument, and together deliberate choices for action. They also develop contingency plans — in the form of arguments. They can also write their own case studies and from these practice inquiry and dialectical reasoning within the class.

We will see if this "new" wisdom holds.

**STONER, MARK R.** **WEDNESDAY 8:45; STEV 2083**  
Associate Professor of Communication Studies, Cal State University, Sacramento

**LINDA MARTIN**  
Lecturer of Communication Studies, California State University, Sacramento

**Teaching as Therapy: Conveying Thinkers to Holonomy** ADV, G, PSYCH

According to Carl Rogers, "therapy is a learning process." We believe that effective teaching and therapy are different but overlap in that they produce, at least, the following outcomes:

- 1) *Knowledge of the self in context* whereby the learner develops internal criteria for judging the learner's own behavior;
- 2) *Increased precision of thinking and reasoning* which facilitates the learner's control over the learner's phenomenal experience, and
- 3) *Increased consciousness of paradoxes, anomalies and questions about reality providing natural motivation for learning and change.*

This participatory workshop will provide opportunity for participants, via case analysis and case creation, to explore the conditions, outcomes, methods and difficulties of viewing teaching as therapy.

**STOUT, CANDACE JESSE** **MONDAY 10:30; STEV 2083**  
Professor of Art Education, Buffalo State University College

**Writing for Critical Thinking in the Arts** C, ART

This presentation discusses the use of writing as a tool to generate critical thinking in the fine arts content areas. Participants will explore why the arts provide an optimal environment for teaching and nurturing critical thinking and will examine a variety of approaches to developing writing exercises that promote higher order thinking about the fundamental issues in aesthetics, art history, and art criticism.

**SWARTZ, ROBERT** **SUNDAY 1:30; DAR 112**  
Co-Director, The National Center for Teaching Thinking

**SANDRA PARKS**  
Co-Director, The National Center for Teaching Thinking

**Infusing Critical and Creative Thinking into Content Instruction** C

This presentation will focus on lesson design and instructional strategies for infusing direct instruction in critical and creative thinking into the content areas. This approach to teaching thinking can yield both improvements in the quality of student thinking and enhanced content learning. Lessons designed for this purpose from K-12 instruction will be demonstrated and analyzed. A framework for constructing such lessons will be provided. Emphasis will be put on how to employ effective questioning techniques, strategies that promote students' reflection on their thinking, and techniques for the transfer and internalization of specific thinking skills. Special strategies that enhance the effectiveness of such lessons, like



the use of graphic organizers and collaborative learning, will be demonstrated. Participants will be provided with samples of the lessons and materials used in the presentation.

**SWARTZ, ROBERT** MONDAY 8:45; STEV 2049  
*Co-Director, The National Center for Teaching Thinking*

**Assessing the Quality of Student Thinking: Techniques for Classroom Teachers** TEST, G

The recognition that there are alternatives to multiple choice testing in assessing how well students understand what they are learning as well as the thinking they engage in is a dominant theme in many new national and statewide testing programs. Assessment needs in the thinking classroom to diagnose and monitor the quality of student thinking can likewise be served by utilizing various alternative modes of assessment. This workshop will demonstrate how to construct a variety of such classroom level assessment tasks for students that reveal their thinking as they demonstrate their understanding of the content being taught. Included will be open-ended assessment items designed for both written and oral responses and performance tasks for students in which they apply and use what they are learning. Strategies for constructing scoring rubrics for such assessment tasks will be presented. Participants will be provided with samples of these two modes of assessment, along with model scoring rubrics.

**TAYLOR, WILLIAM** SUNDAY 1:30; STEV 3049  
*Professor of Political Science, Oakton Community College*

**Helping Students Acquire the Knowledge About Which We Want Them to Think Critically** COLL, MID/HIGH, SOC STUD

It's not uncommon for students to be able to learn quite well in one discipline but not in another. Often, such students have a limited set of learning strategies, strategies that happen to work in some disciplines but not in others. In this interactive workshop, participants will learn how to talk with students about learning strategies, and how to respond when students complain about their grades and say, "But I studied so hard, and I knew the material."

**TAYLOR, WILLIAM** MONDAY 8:45; STEV 3049  
*Professor of Political Science, Oakton Community College*

**Leading Classroom Discussions to Promote Critical Thinking** COLL, MID/HIGH, SOC STUD

In order to develop critical thinking skills, students need to be able to practice those skills in the supportive environment of the classroom. Class discussion is one way to provide students with that opportunity. This workshop will begin with the participants engaging in a "class discussion." This will be followed by a consideration of strategies for leading successful discussions.

**TAYLOR, WILLIAM** MONDAY 3:15; DAR 137  
*Professor of Political Science, Oakton Community College*

**Strategies for Teaching Critical Reading** COLL, MID/HIGH, SOC STUD

There are two primary ways in which students encounter the materials about which we wish them to think critically: reading assigned materials and listening to lectures and class discussions. This workshop will describe some very practical strategies teachers can use to increase the ability of their students to comprehend the reading materials we assign, all with an eye toward helping them become critical instead of passive and uncritical readers. A hands-on, interactive workshop.

**TOMINAGA, THOMAS** MONDAY 10:30; STEV 3026  
*Associate Professor of Philosophy, University of Nevada, Las Vegas*

**Agenda of the "Middle-Way" Logic of Buddhist Economics for Economic Realities and their Implications** ECON, CONF THEME, MUL-CULT

If there is a conceivable alternative to capitalist and materialist economics, concerned strong-sense critical thinkers should make explicit and evaluate some significant implications of realities related to our economic system such as rising unemployment, job-related violence and crime, lack of job satisfaction, and preoccupation with educating our students only for jobs at any cost. Given the apparent inability of capitalist and materialist economics to deal effectively with such realities, we may have to envision and consider an option suggested by the "Middle-Way" logic of Buddhist economics. Buddhist economics presents the following agenda: refine human character through disciplined work; eliminate egocenteredness, attachment to accumulation of wealth, and craving for endless wants; work together with other people in a common task so that everyone can have full employment with dignity and responsibility; and minimize the production and consumption of goods made from non-renewable resources.

**TOMLINSON, LARRY** TUESDAY 1:30; IVES 45  
*Professor of Government, Philosophical and Regional Studies, Community College of Southern Nevada*

**Critical Thinking and Cultural Bashing** POL, SOC STUD, MEDIA

In her book, *The March of Folly* (1984), historian Barbara W. Tuchman called the Japanese decision to attack Pearl Harbor December 7, 1941 a "strange miscalculation." The sneak attack, which Tuchman blames on cultural arrogance, provoked Hollywood to launch a vicious propaganda war against Japan. This propaganda war ended efforts in the U.S. to require propaganda analysis as a part of the high school curriculum. It also left a legacy of hate. More than fifty years after Pearl Harbor, political leaders on both sides were still using stereotypes to describe their economic rivals. In this session, we'll examine the logical fallacies, manipulation techniques, and mass psychology that prevent the world's two great capitalistic superpowers from achieving a truly rational global economy.

**TOOMEY, FRAN**

*Associate Professor of Education, St. Michaels College*

SUNDAY 3:15; STEV 3036

**Community Centered Learning: A Model for Creating a Thinking Community** COLL, PSYCH, SOCIOL, HIGH

This participatory workshop session will be conducted in three roughly equivalent thirty minute parts. Part one will introduce participants to a model for creating a thinking community at the college level, focusing on teacher preparation students but applicable to other disciplines. The model is built on a three dimensional concept of community: roles, rules, and rewards. In part two, participants will work in "thinking" teams, each assuming a critical, complementary role in the process of problem solving. Team members will experience several techniques that have been developed to help college students learn to think in the context of working as a team: "rainbow thinking," "balancing dialogue and discussion," "progressive problem solving," and reflection. In part three, I will report on the utilization of the model in three courses: one sophomore level class, one junior level class, and one graduate class.

**TROW, RUBY**

*Professor of Food and Nutrition/Home Economics, California State Polytechnic University*

TUESDAY 10:30; DAR 137

**MARILYNN FILBECK**

*Associate Professor, Family Environmental Sciences, California State University, Northridge*

**Involving Students in Assessing Academic Performance** TEST, G

This workshop focuses on student assessment and how to involve students in the evaluative process. Assessment targets and its purposes and benefits will be discussed. How to involve students in identifying criteria for various assignments, in the form of grading rubrics, and how to use the established criteria for student self-assessment, as well as teacher assessment, will be demonstrated in small groups. An analysis of the thinking skills used by students in this evaluative process will be analyzed.

**TRUJILLO, JR, RENÉ**

*Assistant Professor of Philosophy, San Jose State University*

WEDNESDAY 8:45; STEV 3046

**The Debate Over Human Rights and Social Justice After the Spanish Discovery of the "New" World** MUL-CULT, POL, H RIGHTS, LANG

This highly interactive workshop will critically assess the university curriculum on issues of human rights and social justice. We will concentrate on the central role which Spanish and Latin American materials can play in opening up the discourse in a manner which is attentive to the increasing diversity in student populations. Some suggestions will be explored in the area of African American sources and the literature of South Africa. Our goal will be to work on ways to utilize the range and richness of pluralistic sources that are relevant to our students. We will make sample references to how the economic realities of the XVI century "drove" the Spanish to their policies in

the Americas. We will also relate this experience to the current economic forces shaping our educational environment. The XXI century is at our doorstep and to meet it successfully we must address our basic understanding of "humanity" and "justice" and how our commitments in these areas are intertwined with the social, political, and economic realities of our times.

**TURNER, MARGARET N.**

*Interim Chair of Education, Davis & Elkins College*

WEDNESDAY 8:45; DAR 137

**CLAUDETTE FRANKLIN**

*Assistant Professor of Education, Davis & Elkins College*

**JUDITH B. SMITH**

*Assistant Professor of Education and Psychology, Davis & Elkins College*

**Restructuring and Reform of Teacher Education: A Liberal Arts College Perspective** COLL, EDUC

With the increased awareness of the interdependent problems of today's society, it has become apparent that the typical Teacher Education Model is no longer appropriate. As a result, Davis & Elkins College has developed a new Teacher Education Model of universal application using critical thinking as the underpinning. This model takes advantage of the liberal arts education already required at Davis & Elkins College. By using critical thinking techniques to teach teachers they will become well prepared themselves to think critically and to teach their students to do so.

This workshop/demonstration will show the process of the model and how course syllabi can be developed across disciplines and domains using critical thinking methods. The participants will actively work through this process.

**UNRAU, NORMAN J.**

*Associate Professor, Division of Curriculum & Instruction, California State University, Los Angeles*

TUESDAY 12:15; IVES 78

**Critical Thinking in the Narrative Mode: The Force of Stories** LANG, SOC STUD, G

A vivid story can have far more persuasive power than the tightest of rational arguments. What is the essence of a narrative's appeal? This presentation and workshop will focus on thinking in what Jerome Bruner calls the "narrative mode", in contrast to the "paradigmatic mode", which is the discourse of science and formal logic. We will first define and illustrate the two modes of thought and then explore through examples the power of stories to persuade and to provide their own form of truth and "proof". Participants in the workshop will be asked to collaborate in teams and to contribute examples of stories that might influence what people will believe or do. We will then focus our inquiry on criteria that might be used to evaluate the persuasive appeal of stories and on considering whether and how we should attempt to inoculate ourselves against that appeal. What do or should we ask of stories before we generalize from them? This workshop has implications for understanding a range of transactions from everyday reasoning to qualitative or ethnographic research.

**VALIGA, TERRY**

*Director of Graduate Nursing Program, Villanova University*

TUESDAY 3:15; STEV 2049

**The Effect of Planned Teaching and Evaluation Strategies on Nursing Students' Cognitive Growth and Critical Thinking: Pursuing Reform Within Nursing Education** HEALTH, NURSING

This session is designed for nurse educators teaching at the college or university level. The results of an on-going study of the effect of planned teaching and evaluation strategies on the cognitive/intellectual growth and critical thinking of one university's baccalaureate nursing students will be reported. In particular, the relationship between cognitive/intellectual development and critical thinking will be explored. After an opportunity to discuss the study reported, participants will work in small groups to design teaching and evaluation strategies relevant to their areas of teaching responsibility, discuss ways to implement such strategies in team-taught courses, and discuss ways to address the content or process dilemma that they experience. It is hoped that at the end of this session, participants will have reflected on the effects of traditional approaches to teaching nursing, considered the educational reforms needed in nursing, and created specific teaching and evaluation strategies they can use.

**VASTA, SEBASTIAN J.**

*Professor of English, Camden County Community College*

TUESDAY 10:30; NICH 204

**MIRIAM K. MLYNARSKI**

*Coordinator of Reference Services and Bibliographic Instruction, Camden County Community College*

**Information Access and Critical Thinking: Managing the Information Explosion** G, LIBRARY SCIENCE

The ongoing explosion of knowledge and the "need to know" pressure felt by citizens throughout the world have combined to propel information literacy and information access to the top of most educational agendas. Yet, due to the global dimensions of a variety of issues and problems (e.g., economic, political, environmental, and educational), there is a need not only to know how to access information, but also how to critically filter accurate meanings from the mass of available information. This participant-centered workshop will present the program of Bibliographic Instruction utilized at Camden County Community College which includes the systematic incorporation of critical thinking strategies.

By the end of the session participants will have used elements and abilities associated with critical thinking to create a personal information access strategy. Subsequently, session participants will be shown how to assess the effectiveness of their strategy.

**VOORHEES, BURTON**

*Professor of Mathematics, Athabasca University*

TUESDAY 8:45; STEV 3040

**Moral Orientation and Critical Thinking** ADV, COLL, MATH/SCI

Following a 30-40 minute paper the remainder of this session will be given over to discussion of issues raised in the paper. The thesis to be presented is

that training in critical thinking must be complimented by training in aesthetic sensitivity, and that both of these are guided by a person's moral orientation. It is suggested that the dilemma of dogmatism vs. relativism can be overcome by recognizing that there is such a thing as objective morality, but that this cannot be formalized in any set code of behavior and conduct. The Socratic dialogue is put forward as an example of a technique which can lead to the possible recognition of objective morality.

**WAXMAN, DON**

*Principal Restoration Consultant, Waxman Landscaping Environmental Consulting & Service*

TUESDAY 10:30; DAR 139

**J. THEODORE STANLEY**

*Executive Vice President and C.E.O, The Habitat Restoration Group*

**JOHN ZENTNER**

*President, Zentner and Zentner, Land Planning and Restoration*

**Restoration of the Natural Landscape: Issues and Examples** ENV

Western culture has been concerned with the apparent separateness of humanity from nature. Many authors have used this sense of separation to justify or explain the degradation of the natural environment. However, if humanity's actions have resulted in environmental degradation, then humanity should be able to undo these actions and replicate the pre-disturbance environment. Not so, state both environmentalists and scientists; nature's methods and mechanisms are far beyond our limited understanding or instrumentation. The rapidly growing field of ecological restoration, as an attempt to replicate natural landscapes or ecosystems, challenges this conclusion. We will continue to question the restorationist's ability to replicate natural landscapes until an ethical framework is developed to resolve this challenge. This panel will focus on a group discussion of the issues surrounding restoration. Individual presenters will provide introductory statements, drawing on their experience to review specific restoration projects.

**WEBSTER, YEHUDI O.**

*Professor of Sociology, California State University, Los Angeles*

SUNDAY 3:15; IVES (WARREN)

**DAN WEIL**

*Director of Multi-Cultural Education, Center for Critical Thinking*

**WILLIAM ZEIGER**

*Assistant Professor of English, Slippery Rock University*

**HILDA CABANEL-EVANS**

*Professor of Philosophy, Humanities, and Foreign Languages, Rio Hondo College*

**SUSAN M. AWBREY**

*Associate Professor of Education, Oakland University*

**Panel Discussion on Multi-Culturalism** MUL-CULT

Why has multi-culturalism aroused considerable support and resistance from educators, politicians, and administrators? Why does it comprise divergent and even antagonistic schools of thought? This panel will argue

over various viewpoints concerning multi-culturalism and critical thinking, and how we can construct a more inclusive educational agenda. Audience participation will be strongly encouraged.

**WEBSTER, YEHUDI O.** MONDAY 8:45; IVES (WARREN)  
*Professor of Sociology, California State University, Los Angeles*

**Multi-Culturalism and Critical Thinking: Compatibility or Competition?**  
 G, MUL-CULT

Multi-culturalism has been proposed as a solution to some educational and social problems. It promises to reduce stereotyping and prejudice, increase sensitivity to America's cultural diversity, and combat the legacies of racism and ethnocentrism which permeate education and society. Advocates of critical thinking make similar promises. I argue that a critical examination of the dominant conception of multi-culturalism would discover that it is incompatible with critical thinking and cannot deliver on its promises. To mention three incompatibilities: 1) Multi-culturalism downplays the role of reasoning in human behavior. 2) Cultures cannot be taught or cultivated in schools, but conceptions of culture used in anthropology can be analyzed, (this would not be called Multi-culturalism). 3) Multi-culturalism affirms relativism: each individual or group has its own "perspective"; all perspectives are relatively right. The alternative to multi-culturalism is to foster critical thinking about racial and cultural theories of society.

**WEBSTER, YEHUDI O.** MONDAY 3:15; STEV 1002  
*Professor of Sociology, California State University, Los Angeles*

**Are There White and Black People? Reasoning About Racial Classification**  
 G, SOC STUD, MUL-CULT

Description: Criticisms of racial classification have come from every discipline except philosophy. Yet racial classifications exhibit a multitude of logical flaws, as in the syllogism: "I have white skin. Therefore, I am a white." "People regard themselves as black. Therefore, race is a reality." "Only black people have been enslaved. Therefore, white people cannot appreciate the black experience." This presentation will outline the theoretical-educational source of these and other fallacies, and indicate how critical thinking skills must be integrated with courses on racial and ethnic relations. It will therefore also address hidden (realist and relativist) philosophical inputs in the training of teachers and social scientists.

**WEBSTER, YEHUDI O.** TUESDAY 10:30; IVES 76  
*Professor of Sociology, California State University, Los Angeles*

**On Becoming a (Better?) Critical Thinking Instructor: The Elements of Thought**  
 G, VIDEO

This presentation will address some processes of infusing critical thinking in the classroom setting, specifically, conveying the ramifications of the elements of thought — the foundation of critical thinking instruction and crit-

ical thinking as a competency. Beliefs and propositions are the end-product of an infinite series of related assumptions, points of view (theory, paradigm, world view), premises, and inferences; they have implications, policy and behavioral consequences. All these elements are integrated by reasoning, and critical thinking is the conscious grasping of these elements and subjecting them to intellectual standards. Thinking about the elements of thought requires a commitment to learning, to educability, and this commitment should be infused in every student, whether in the natural sciences, social sciences, or humanities. Grasping the elements of thought is a first step in intellectual adventures, in the construction of a critical thinking classroom, and in becoming a teacher in the Socratic sense.

**WEIL, DAN** MONDAY 10:30; SUMPR  
*Inservice Specialist, Multi-Cultural Education, Research Assistant, Center for Critical Thinking*

**Critical Thinking, Critical Writing, and Literature-Based Whole Language Instruction**  
 ELEM

In early primary grades, too much stress is placed on developing skills outside the realm of thinking. Helping a young child learn the skills of sequencing, identifying the title of a book, recognizing how a book proceeds, and identifying characters and plot, should take place within the realm of thinking — not divorced from it. This session will focus on how we can use literature and language experience to develop a critical thinking language arts curriculum for early primary children.

**WEIL, DAN** MONDAY 3:15; SUMPR  
*Inservice Specialist, Multi-Cultural Education, Research Assistant, Center for Critical Thinking*

**Reasoning Within Different Cultural Points of View: Using Language Instruction for Early Childhood Social Studies**  
 ELEM

Learning to see the commonalities in the struggle for human dignity between cultures and the logic of oppression that threatens that struggle, is essential for a true appreciation of diversity. This session will address how we can use literature-based whole language instruction with young children to stimulate thinking about diversity. The session will include a discussion of underlying principles and present a demonstration using children's literature.

**WEIL, DAN** TUESDAY 10:30; SUMPR  
*Inservice Specialist, Multi-Cultural Education, Research Assistant, Center for Critical Thinking*

**Critical Thinking and Elementary School Mathematics**  
 ELEM

Early primary school students' comments, such as, "I hate math!", or "Math is too hard!", derive their origins from inadequate mathematical instruction. Rather than focusing on thinking critically about mathematics, students

learn that mathematics is little more than rote memorization. This session will share critical thinking approaches to mathematics instruction for children in kindergarten, first, and second grades.

**WEIL, DAN**

*Inservice Specialist, Multi-Cultural Education, Research Assistant, Center for Critical Thinking*

**TUESDAY 1:30; IVES 76**

**Constructing a Critical Multi-Cultural Curriculum** ELEM, VIDEO

The premise of this workshop is that education should be linked and interpreted not relative to the needs of the so-called Free-Market, but relative to the needs of the social democracy, personal freedom, equality, and human dignity. In the words of W.E.B. DuBois, "The object of education was not to make men (sic) carpenters, but to make carpenters men (sic)." Developing a multi-cultural curriculum based on *reasoning* rather than simply *exposure*, will be the focus of this workshop. A defensible approach to multi-cultural education that seeks to build personal and social character should address 1) educational equity, 2) the necessity of providing critical reasoning opportunities within multiple perspectives and points of view informed by social class, gender, culture, and race, and 3) historical and contemporary reality in an attempt to understand the common struggle for human dignity and the logic of oppression.

**WEINSTEIN, LAWRENCE**

*Director, Writing Center, Bentley College*

**MONDAY 10:30; STEV 3036**

**Papers Can Wait: A Freshman Composition Course in Which Practice in Inquiry Comes First** COLL, LANG

An experimental version of the freshman composition course at Bentley College is based on the premise that students' intelligence far exceeds the level of thought which their course papers normally reflect, and that significant improvement in the work of students would occur if a "moratorium on paper-writing" were imposed, during which students were to practice only pure (messy) inquiry, excluding all consideration of the needs and demands of the readers. To date, the results of the course — in which most of the traditional concerns of freshman composition (such as organization, transition, diction, grammar, and punctuation) are deferred to the second half — have been quite promising. This session will include a description of the course and a report of results to date, as well as one or two hands-on exercises drawn from the course.

**WEINSTEIN, MARK**

*Associate Director, Institute for Critical Thinking, Montclair State College*

**MONDAY 8:45; CAR 68**

**Critical Thinking and the Goals of Science Education** SCI, COLL, HIGH

The traditional purpose of science education, especially at the post-secondary level, is to identify and train those few students with the natural ability and motivation to become science professionals. More recently criti-

cal thinking, construed as the method to help students to "think as scientists do" has been included as a progressive agenda. We will argue that this is only progressive if the way scientists think is appropriate to the goals for which science should be taught. In this presentation, we will offer an expanded model for general science literacy that goes beyond both traditional and recent practices, and a model of critical thinking that supports it.

**WEINSTEIN, MARK**

*Associate Director, Institute for Critical Thinking, Montclair State College*

**MONDAY 12:15; STEV 1002**

**Educating for Development: Critical Thinking Across the Disciplines** ENV, ECON, H RIGHTS, STAFF DEV

If people of all classes are to play a central role in determining the future of the planet and its various sub-systems, an intelligent appreciation of the problems facing humankind and possible solution strategies must be increasingly available to all those whose knowledge of the world results from their participation in mass education. This requires a reconceptualization of the social role of education and a reconsideration of practices appropriate to mass education. We will examine the social and political basis for critical thinking and explore its component parts. A program of educational reform which includes the renewal of teacher education and an ongoing collaboration between schools and universities will be described.

**WEINSTEIN, MARK**

*Associate Director, Institute for Critical Thinking, Montclair State College*

**TUESDAY 10:30; CAR 68**

**How to Get from Ought to Is: Post-Modern Epistemology and Social Justice** H RIGHTS, THEORY

The recent critique of enlightenment rationalism evident in post-modernism has brought into question standard notions of objective and value free epistemology. In this paper, an attempt will be made to integrate perspectives of social justice into the standard account of epistemologically governed practices. This integration will have significant consequences for education and particularly for recent models of critical thinking. We will argue that such an integration is both justifiable and needed if educational reform, in the interest of increasing access to political, social, and economic power, is to be possible.

**WEINSTEIN, MARK**

*Associate Director, Institute for Critical Thinking, Montclair State College*

**TUESDAY 3:15; STEV 1002**

**Critical Thinking Across the College Curriculum: What Faculty Wants and Needs** STAFF DEV, COLL

The disciplinary commitments of college faculty do not have a clear and compelling relation to typical arrays of general thinking skills or informal logic concepts. Thus, much of the available literature in critical thinking is not helpful to faculty who, nevertheless, accept the critical thinking ideal of autonomous, thoughtful, and reflective students. Faculty development at

Montclair State College has, however, pointed to a number of general issues that seem relevant to critical thinking across the disciplines. These include concern with the epistemological assumptions of the various fields, argumentation within the discipline, the construction of appropriate academic tasks, educational objectives within particular fields, issues of the canon, and the motivational aspects of learning that inhibit students' accepting critical thinking as an appropriate educational objective. We hope to suggest by this presentation, that critical thinking advocates should focus more on these sorts of concerns and less on the standard fare extrapolated from introductory logic courses.

**WILCOX, MARK A.** TUESDAY 3:15; ART 108  
*Co-Founder of the Center for Whole Brain Thinking, BrainWorks*

**The Brain: A Model for the Effective Formation and Utilization of Teams** PSYCH, HIGH, BUS

The vast majority of teaming being practiced in both schools and industry is artificial and ineffective; and that's the good news. In a recent survey ("Traits of a World-Class Work Force") of 250 major companies in the U.S., 75% of the respondents said that "Teaming" was a key to being world-class. This session will identify the keys for forming effective learning teams. Participants will understand the importance of thinking preferences and experience several "team" activities to demonstrate the points of the program.

**WILCOX, MARK A.** WEDNESDAY 10:30; ART 108  
*Co-Founder of the Center for Whole Brain Thinking, BrainWorks*

**Did You Ever Have to Make Up Your Mind? Using Whole-Brain Thinking to Make Good Decisions** BUS, HIGH, PSYCH

What are the three keys to making good decisions? Does your thinking get in the way of your creating or identifying great alternative choices? In this program, Mark will present answers to these questions, review the Six Steps to Decision Making, and then focus on developing skills for identifying great alternative solutions. He will discuss TLC, forced association, whole-brain storming, inverse thinking, and other techniques for ideating. Participants will be introduced to a technique for selecting the very best alternative.

**WILD, JENNIFER** TUESDAY 8:45; STEV 3026  
*Director of Development, NOVA Research Company*

**Action Science: The Skills Needed to Critically Reflect on Practice** BUS, H CON, PSYCH, ADV

Action Science is a theory of Interpersonal and Organizational Intervention, and a methodology for data gathering and analysis. Developed by Chris Argyris and others over the past two decades, it is most useful as a technique for examination and reflection of incongruity between the values and beliefs that are espoused by an individual or organization and those actions/behaviors that actually occur. It is particularly effective when used

as a skill for helping in the discovery of errors in reasoning by ourselves and others. This session will introduce the theory of Action Science, will provide a briefing and demonstration on the skill set that can be developed, and will address some potential individual or organizational applications of the theory in practice.

**WILLIAMS, GRADY E., III** SUNDAY 3:15; DAR 139  
*Professor of Biology and Environmental Science, Delta State University*

**A Role-Playing Model for Introducing Critical Thinking and Creative Concept Structuring in Environmental Science** ENV, SCI, G

This participatory workshop is for high school and college teachers who address environmental issues in their classes. The model is directly relevant to introductory environmental science courses and adaptable to any discipline which explores environmental and economic connections to public and social issues. My goal is to demonstrate how role-playing facilitates critical thinking in: 1) environmental concept structuring and 2) development of creative approaches to resolution of complex environmental problems. Participants will adopt roles of diverse interest groups in example issues. They will first identify major concerns and develop solutions relevant to assigned roles. After presentation of interest group results, participants will regroup to develop and present integrated, balanced solutions to the issues. The model forces students to develop a more informed, balanced, appropriate concept, which can be desirable in negotiating solutions to complex, multi-polar problems. Materials will be distributed to participants and observers.

**WILLIAMSON, JANET L.** MONDAY 10:30; STEV 3008  
*Program Specialist, Greensboro Public Schools*

**Portfolios: Monitoring Student Thinking** K-12

This participatory workshop provides guidance in developing portfolios in classrooms in all disciplines and grade levels. Specific examples from Greensboro teachers and students demonstrate how portfolios have helped students to increase their responsibility, reflect upon and assess their own work, define and internalize specified criteria for evaluation, and demonstrate to themselves and others their growth over time. A series of activities and questions lead participants to make decisions about why and how to use portfolios in their classroom instruction.

**WILLSSEN, JANE** SUNDAY 1:30; SUMPR  
*Director of Research and Publications, Center for Critical Thinking and Moral Critique*

**Critical Thinking and Parenting: Expanding Your Critical Thinking Community to Include Parents** K-12, STAFF DEV

We have all heard that the parent is the child's first teacher, and yet we have made few strides toward building parenting skills that support the child's critical thinking. Most parents have not heard of critical thinking, though some intuitively support it, but few appreciate its significance for

their child's future. With parent support and education also comes the opportunity to bring parent pressure for more critical thinking curriculum and staff development in schools. How can we improve our parenting techniques and parent involvement at school and home so as to support the critical thinking of our children?

This session addresses this issue and focuses on four areas: 1) "How to do it," 2) "Practical Suggestions," 3) "Sample Materials for Parents Explaining Critical Thinking and its Role in Their Child's Future," and 4) "Parent Evenings" that enables parents to be a resource in their school community or business.

**WILLSSEN, JANE**

**MONDAY 8:45; SUMPR**

*Director of Research and Publications, Center for Critical Thinking and Moral Critique*

**Critical Thinking: The Magic Wand That Integrates Curriculum** ELEM, MID, STAFF DEV

It is difficult to reach an integrated curriculum when texts are not thematically related, or when fourteen subjects are required to be taught in the elementary classroom. Advisory documents like the California State Frameworks are not much help in bridging from past practices and current materials to accomplishing an integrated curriculum.

Critical Thinking is a magic wand when it is conceived of in its comprehensive and substantial sense: we can identify intellectual standards for all assignments and learning; we can identify elements of thought and the abilities that derive from them, to be taught in every subject area; we can organize our curriculum and shop textbooks and materials for examples to teach these abilities in exciting and interesting ways. The curriculum then spins around a core of critical thinking standards, elements, and abilities. An overriding goal of developing students' intellectual traits of fairmindedness, perseverance, empathy and integrity are natural binding agents, as well. Strategies and materials will be provided in this interactive session.

**WILLSSEN, JANE**

**MONDAY 1:30; CAR 68**

*Director of Research and Publications, Center for Critical Thinking and Moral Critique*

**Teaching High School Students How to Assess Their Own Thinking** HIGH, TEST, BEG

High School students are keen to assess and judge what they see and hear, what they recognize as inconsistencies in their world. They have some ideas about how to assess in some areas, such as whether their clothes are appropriate or whether their parents are acting fairly.

Yet, they have little if any conception of how to assess and judge their own thinking processes. They want to be taken seriously by adults, but they do not understand the importance of "reasoned judgment" nor how to acquire it. Without a grasp of the tools of intellectual standards and elements of thought, they have no criteria, no inner structure to use as they move

toward a well-reasoned judgment, and they are not able to know when they are "hot" or "cold." They want to be empowered vis-a-vis adults, and this is a key step on the way.

This practical session provides a structure and materials for you to assist your high school students in understanding the characteristics of a well-reasoned belief or position and what it asks of us, as well as how to use intellectual standards to come to such a position.

**WILLSSEN, JANE**

**TUESDAY 8:45; IVES 76**

*Director of Research and Publications, Center for Critical Thinking and Moral Critique*

**Critical Thinking: The Magic Wand That Integrates Curriculum** ELEM, MID, STAFF DEV, VIDEO

It is difficult to reach an integrated curriculum when texts are not thematically related, or when fourteen subjects are required to be taught in the elementary classroom. Advisory documents like the California State Frameworks are not much help in bridging from past practices and current materials to accomplishing an integrated curriculum.

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**WILSON, SALLIE L.**

**WEDNESDAY 10:30; STEV 3008**

*Education Consultant, California Department of Education*

**Year 2000: Creating a Culture of Thinkers** C, ELEM, MATH

In year 2000 classroom a "culture of thinkers" are teachers that take serious the knowledge that children have when they enter school. In this approach, the teacher uses the knowledge of each child to make instructional decisions so that the child learns with understanding, learns how to solve problems, and make connections with out-of-school experiences and culture. In addition, the curriculum is reshaped to focus on complex meaningful problems, and the staff develops a new attitude toward the disadvantaged learner. This presentation examines the principles of cognitive approaches to creating a "culture of thinkers" by discussing intervention strategies that start with "what" all children know and provides explicit models of proficient thinking in areas that traditionally have been termed Critical Thinking or advanced skills. The presenter will distinguish the disadvantaged

learner in the context of conditions that contribute to under achievements, in math and other global tasks.

**WITTE, MARLYS H.**

*Professor of Surgery, University of Arizona, College of Medicine*

MONDAY 10:30; IVES 35

**ANN KERWIN**

*Philosopher-in-Residence, Department of Surgery, University of Arizona*

**CHARLES L. WITTE**

*Professor of Surgery, University of Arizona*

**It Pays to Be Ignorant: The Costs and Value of Not-Knowing** K-12, COLL, HEALTH

In this participatory workshop, Marlys and Charles Witte M.D. and Ann Kerwin Ph.D., of the innovative Curriculum on Medical Ignorance at the University of Arizona College of Medicine, explore a rich, renewable, and under-exploited resource: our ignorance. Ignorance encompasses all the things we know we don't know (*known unknowns*); all the things we don't know we don't know (*unknown unknowns*); all the things we think we know but don't (*dogma, error, misconception*); all the things we don't know we know (*tacit knowing*); and all the things we will not to know (*denial, taboo, heresy*). While our ignorance can and does harm us, it is also the source of all learning, discovery, and creativity. We enrich ourselves as teachers, students, and discoverers when we learn to use our ignorance wisely (*ignorance-based management*). Those concerned to tap this vital resource will profit from this practical, stimulating venture through *terra incognita* to dividends unknown.

**WRAGG, DIXON**

*Community Liaison Director, North Coast Treatment Center*

TUESDAY 3:15; STEV 3077

**Critical Thinking and Social Responsibility: From the Classroom to the World** H RIGHTS, SOCIOL, POL, H CON

The primary theses of this workshop are: 1) The main explicit function of an educational system (educating) and its main tacit function (indoctrinating students with prevailing societal mores) are fundamentally in conflict. 2) Most educators are in denial of this, and are content to pass off indoctrination as education. 3) Strong sense critical thinking is therefore rare. 4) Strong sense critical thinking is essential for grappling with social problems and alleviating human suffering. 5) Therefore, educators have an urgent social responsibility to eschew indoctrination in favor of true education (with critical thinking), even when that's heretical and risky. Format: approximately 1/2 hour of explicating the basic concepts (with examples), then about 1 hour of spirited discussion. Join the fun!

**YAMEEN, DEANNA L.**

*Assistant Dean, Alternative Instruction, Massachusetts Bay Community College*

MONDAY 1:30; STEV 3049

**LYNN R. CHONG**

*Learning Specialist, Massachusetts Bay Community College*

**FREDERIC M. TORZS**

*Learning Specialist, Massachusetts Bay Community College*

**PATRICIA ALLEN**

*Facilitator, Massachusetts Bay Community College*

**Thinking About Thinking: Uncovering Ideologies in Thought** COLL, MUL-CULT

This is a hands-on workshop that explore the manner in which our tacit theoretical assumptions determine our thinking process. Teaching students to think critically, in this view, means teaching students to theorize about ways in which language and knowledge are situated in the world. This includes empowering students to make sense of their position in the world by recognizing dominant interests and socializing ideologies, and helping students to uncover the theoretical frameworks that form, in Richard Paul's words, the "background logic" of their own thinking processes. This workshop, presented by four practitioners, is an abbreviated overview of a critical thinking course which is in the process of development at Massachusetts Bay Community College.

**YOUNG, MARYBETH**

*Associate Professor Maternal Child Nursing, Loyola University*

TUESDAY 10:30; STEV 2049

**Developing Critical Thinking Abilities as a Basis for Nursing Practice** HEALTH, COLL

As the health care delivery environment continues to change, new technologies demand a wide range of skills. Nurses and those to whom they provide care represent increasingly varied cultural groups. Social issues affect the health of populations in rural and urban United States. Facing these complex challenges, nurse educators prepare novices for entry into twenty-first century professional practice. This presentation, which includes reflective exercises and dialogue, will focus on some ways educators restructure learning experiences to enhance critical thinking and problem solving skill development in undergraduate nursing students.

**ZEIGER, WILLIAM**

*Assistant Professor of English, Slippery Rock University*

MONDAY 3:15; STEV 3072

**Freedom of Imagination: Stories and Critical Thinking** MUL-CULT, LANG, COLL, MID/HIGH

Storytelling is used as a means of stimulating critical thinking. Participants hear stories representing the wisdom of several cultures, told by an accomplished storyteller. Participants next review a serious contemporary eco-



conomic problem. Then a special story is told, a story of African origin, designed to both liberate and guide innovative thinking. Using clues derived from this story, each participant individually addresses the economic issue already discussed. Then they share their work on this problem in small groups; and finally each group reports its findings to the group as a whole. Because of the clues the story provides, several different approaches to the problem are likely to surface. Because the storytelling atmosphere helps to free the imagination, these approaches may be surprisingly innovative.

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## THE NATIONAL COUNCIL FOR EXCELLENCE IN CRITICAL THINKING

With a solid core membership of 700 leading educators as a foundation, the National Council for Excellence in Critical Thinking (NCECT) is working hard to expand its outreach and impact. The strategy is twofold: to staff research-reporting committees with bona-fide experts in 75 domains and to establish regional and state centers for critical thinking.

The goal is for each committee to update yearly the state of research in 75 categories with respect to critical thinking. These annual reports will serve to inform interested educators and public citizens of what we presently know about the nature of standards for the assessment of critical thinking in each.

The hopes of the National Council leadership are ambitious, no less than the establishment of NCECT representatives in every school district, college, and university. "Only with wide outreach can the message of the National Council transform classrooms at all educational levels," says Richard Paul, NCECT chair.

Unless educators come to understand the importance of intellectual criteria, they will not make the basic changes in teaching and assessment fundamental to sound educational reform. You can learn more about the NCECT by attending the informational meeting on Monday at 8:00 pm held in the Student Union Multi-Purpose room. There are also informational meetings held around the country. Contact any of the affiliated Centers (see next page) for a brochure and information on locations and dates for the meetings.



Checks payable to: National Council (NCECT)  
4655 Sonoma Mountain Rd.  
Santa Rosa, CA 95404  
phone (707) 546-0629, fax (707) 546-4718

### MEMBERSHIP APPLICATION

Name \_\_\_\_\_

Title \_\_\_\_\_

Dept \_\_\_\_\_

Institution \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State/Zip \_\_\_\_\_

Work Phone \_\_\_\_\_

Home Phone \_\_\_\_\_

I would like to join NCECT as a:

- Regular Member (\$25.00)
- Associate Member (\$10.00, K-12 & Student)
- Institutional Member (\$100.00)  
(Membership dues are annual.)
- Supporter (\$200)
- Sustainer (\$500)
- Benefactor (\$1000 or more gift)
- My check is enclosed.

I am interested in Council work on:

- Forming Alliances with Associations
- Establishing State and Regional Offices
- Regional Newsletters
- Regional and Local Networks
- Research Committees
- Liaison with State Depts of Education
- Council Representation
- Dissemination of Council Goals

#### AFFILIATED CENTERS OF THE NCECT

Center for Critical Thinking and Language Learning (La Guardia, NY)  
(718) 482-5699

Wisconsin Center for Critical Thinking  
(715) 639-2002

Carolina Center for Critical Thinking  
(919) 370-8985

Monterey Center for Critical Thinking  
(408) 753-4267

Texas Center for Critical Thinking  
(512) 416-5828

Center for Critical Thinking  
(707) 664-2940

Metropolitan Center for Critical Thinking  
(303) 556-2978

Institute for Critical Thinking (Montclair, NJ)  
(201) 893-5184

Oklahoma Center for Critical Thinking  
(405) 581-2364

Georgia and Alabama Center for Critical Thinking  
(912) 333-5621

Mississippi Center for Critical Thinking  
(601) 846-4247

Nebraska Center for Critical Thinking  
(402) 554-2628

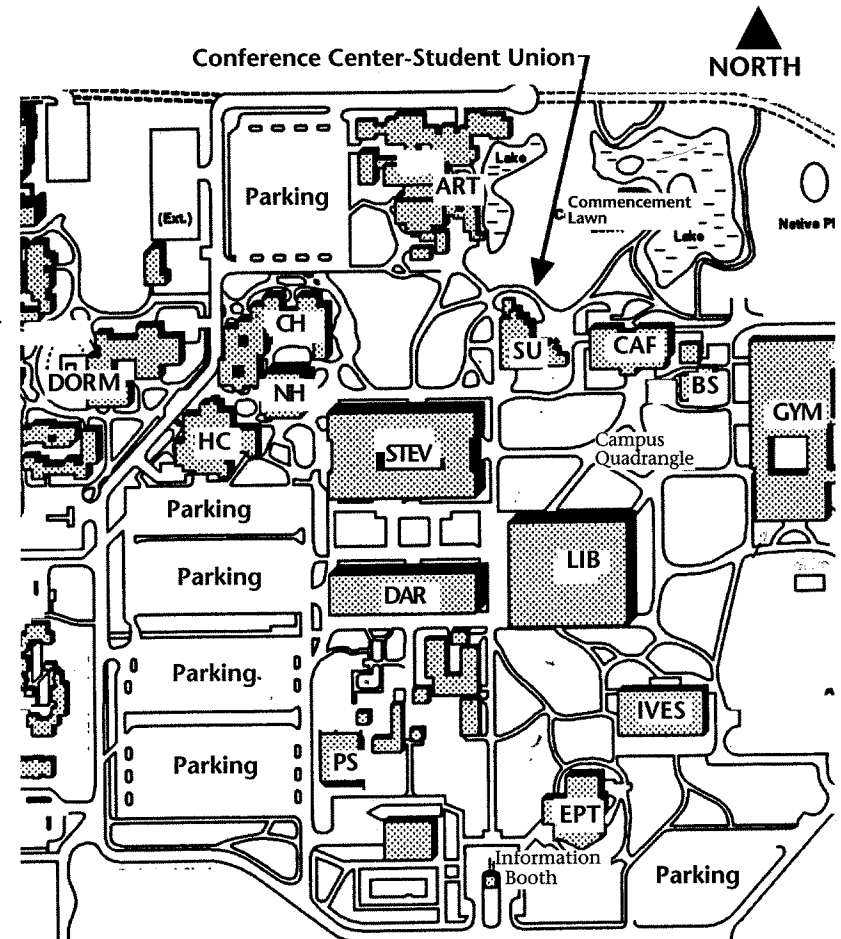
## Session Audience Codes

ELEM.....	elementary school
MID/HIGH.....	middle/high school
K-12.....	kindergarten-12th grade
COLL.....	post-secondary education
ADV.....	advance session
BEG.....	beginners in critical thinking
BUS.....	business
CONF THEME.....	related to conference theme
COMPUTER ASST ED.....	computer assisted instruction
ECON.....	economics
ENV.....	environment
FEM.....	feminism
G.....	general
HEALTH.....	health sciences
H CON.....	human conflicts
H RIGHTS.....	human rights
LANG.....	language arts/English
MATH/SCI.....	math/science
MEDIA.....	media, media literacy
MUL-CULT.....	multi-culturalism
PEACE.....	peace studies
POL.....	politics, political science
PSYCH.....	psychology
SOC STUD.....	social studies
SOCIOL.....	sociology
STAFF DEV.....	staff development
TEST.....	testing and assessment
THEORY.....	theoretical orientation

## Important Phone Numbers and Locations

Specially-marked on-campus phones are available throughout campus. When calling on campus from one of them, dial the last four digits only.

Campus Operator (Information, Activities).....	664-2880	
Conference Info Center.....	664-4156	Student Union, Downstairs
Shuttle Information.....	664-3140	Student Union
Housing Service Desk.....	644-2530	Zinfandel
Public Safety (Campus Police).....	664-2143	Foundation Center Buildings
Lost & Found.....	664-2317	
Parking Information.....	664-2143	
Emergency Only.....	664-2911	
Academic Credit: Office of Extended Education.....	664-2394	Stevenson 1012



## Sonoma State University Central Area Legend

ART	Art Complex	IVES	Ives Hall; Warren Auditorium
BS	Bookstore	LIB	Ruben Salazar Library
CAF	Commons (Cafeteria)	PS	Public Safety
CH	Rachel Carson Hall	NH	Nichols Hall
DAR	Darwin Hall	HC	Health Center
DORM	Residence Halls	STEV	Stevenson Hall
EPT	Evert B. Person Theatre	SU	Student Union
GYM	Gymnasium		

# Preparing for a Rapidly Changing World

The Center for Critical Thinking  
and Moral Critique  
Sonoma State University  
1801 East Cotati  
Rohnert Park, CA 94928

The Foundation for Critical Thinking  
A Non-Profit Educational Foundation  
4655 Sonoma Mountain Road  
Santa Rosa, CA 95404  
(800) 833-3645

The National Council for Excellence  
in Critical Thinking  
(707) 546-0629