

THE 16TH INTERNATIONAL CONFERENCE ON

Critical Thinking & Educational Reform

**SPONSORED BY THE CENTER FOR CRITICAL THINKING AND
MORAL CRITIQUE
SONOMA STATE UNIVERSITY**



PROCEEDINGS OF

**THE
SIXTEENTH ANNUAL
INTERNATIONAL CONFERENCE
ON
CRITICAL THINKING AND
EDUCATIONAL REFORM**

Creating Communities
of Thinkers

JULY 28-31, 1996



SPONSORED BY THE

Center for Critical Thinking and Moral Critique

SONOMA STATE UNIVERSITY

(707) 664-2940



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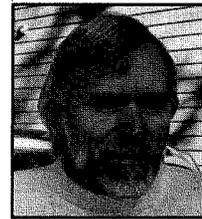
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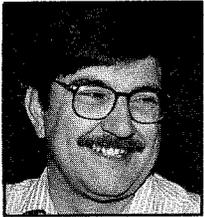
KEYNOTES



RICHARD W. PAUL, Director of the Center for Critical Thinking, is an internationally recognized authority on critical thinking, with five books and over 100 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 20 years. His workshops have been attended by thousands of educators, both K-12 and university.

Critical Thinking and Intellectual Discipline

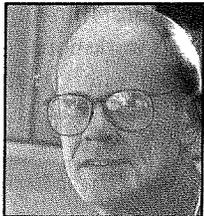
Presentation time and location:
July 28, Sunday, 9:00 A.M. - 10:15 A.M.
Evert Person Theatre



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.

Critical Thinking and a Scientific World View

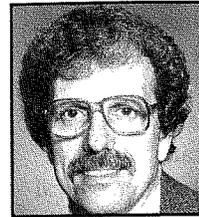
Presentation time and location:
July 28, Sunday, 7:00 P.M. - 8:15 P.M.
Evert Person Theatre



RALPH JOHNSON is one of the distinguished and respected leaders in the field of informal logic and critical thinking. He is the co-founder of *Informal Logic*, one of the oldest and best established journals in the field. He has many publications in the field including: *Logical Self-Defense* and *The Rise of Informal Logic*. He has been a regular presenter at the critical thinking conference for the last 15 years.

Critical Thinking and Command of Language

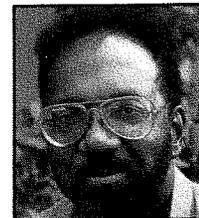
Presentation time and location:
July 29, Monday, 9:00 A.M. - 10:15 A.M.
Evert Person Theatre



WILLIAM A. DORMAN is a nationally known political communication scholar whose work has appeared in periodicals ranging from *Columbia Journalism Review* to *World Policy Journal*. He is co-author of *U.S. Press and Iran: Foreign Policy and Journalism of Deference*. For almost a decade he has taught a critical thinking and mass media course in Sacramento, and has given workshops of the subject throughout the U.S. and abroad. He has appeared regularly at the Sonoma conference since 1987.

Mass Media and Critical Thinking: Reasoning for a Second-Hand World

Presentation time and location:
July 29, Monday, 7:00 P.M. - 8:15 P.M.
Evert Person Theatre



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 is the author of *The Racialization of America*.

Critical Thinking and Racial Identity

Presentation time and location:
July 30, Tuesday, 9:00 A.M. - 10:15 A.M.
Evert Person Theatre



LINDA ELDER, an educational psychologist, has extensive experience in designing and executing instructional curricula for a wide variety of groups from elementary to higher education. She has led numerous critical thinking workshops for educators in topics such as the affective dimension of thinking, critical thinking and instruction, and Socratic questioning. She has written an original stage theory of critical thinking development and co-authors a column on critical thinking in the *Journal of Developmental Education*

Critical Thinking and Emotional Intelligence

Presentation time and location:
July 30, Tuesday, 7:00 P.M. - 8:15 P.M.
Evert Person Theatre

NEW CONFERENCE STRAND: HOT TOPICS SERIES

In addition to the multiplicity of conference sessions characteristic of the Sonoma conference tradition, the 16th International has a new strand devoted exclusively to "hot" issues. Distinguished critical thinkers will take up positions with respect to a variety of issues. The discussions will, we hope, model the key intellectual traits that underlie high level critical thinking: intellectual humility, intellectual perseverance, fairmindedness, and intellectual responsibility. The discussants will not strive to score "debater's points" on each other, but rather will attempt to develop a line of reasoning which fully respects the insights of the "other" side. Intellectual challenge will be separated from emotional acrimony and manipulative rhetoric.

The Audience Enters the Debate

After the invited debaters discuss the issue, the audience, in small groups, will hold their own discussions. Following these small group discussions there will be a whole group discussion in which the audience can respond directly to the original debaters and to each other. Both the issue and the manner in which the issue was approached will be discussed.

The Audience Evaluates the Debate

In the final five minutes, the audience will then score the intellectual quality of the original discussion (on individual assessment forms), evaluating the extent to which each discussant was clear, stuck to the question, dealt with the complexity of the issue, reasoned validly and fairly, etc.

Hot Topics

1. **RELIGION AND CRITICAL THINKING:**
 "Is critical thinking incompatible with religious belief?"
 (Sunday 1:30, STEV 1002, Philip Clayton and Richard Paul)
2. **CRITICAL THINKING AND ROMANTIC RELATIONSHIPS:**
 "Should critical thinking be used in romantic relationships?"
 (Sunday 3:15, STEV 1002, Linda Elder and Yehudi Webster)
3. **FEMINISM AND CRITICAL THINKING:**
 "Has feminism made a contribution to critical thinking?"
 (Monday 10:30, STEV 1002, Ralph Johnson and Dianne Romain)
4. **PHILOSOPHY AND CRITICAL THINKING:**
 "Does critical thinking vary according to the philosophy of the thinker?"
 (Monday 1:30, STEV 1002, Philip Clayton and Richard Paul)
5. **PASSION VS. REASON:**
 "Is there a role for passion in reason?"
 (Monday 3:15, STEV 1002, Linda Elder and Dianne Romain)
6. **POLITICS AND CRITICAL THINKING:**
 "Does critical thinking presuppose a political standpoint?"
 (Tuesday 10:30, STEV 1002, T. Edward Damer and William Dorman)
7. **MORALITY AND CRITICAL THINKING:**
 "Can one be a good critical thinker and an immoral person?"
 (Tuesday 1:30, STEV 1002, Gerald Nosich and Ian Wright)
8. **BUREAUCRACY AND CRITICAL THINKING:**
 "Is critical thinking compatible with bureaucracy?"
 (Tuesday 3:15, STEV 1002, George Hanford and Yehudi Webster)

CONFERENCE MISSION & HISTORY

The 1996 Conference on Critical Thinking and Educational Reform reflects the development implicit in the fifteen 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 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 Commons.) This year, over 150 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 can we 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 provides 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 on 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, 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 by classifying all presentations with a label that indicates possible special interest concerns (see audience code chart on page 18), and by setting up a meeting time on Tuesday evening (8:15 P.M.) for groups to organize themselves into networks (see Special Interest Groups, page 10, for more information).

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!

SPECIAL EVENTS

EVENING THINKFESTS

The evening Thinkfests are designed as an integral part of the conference. These socials provide an opportunity for presenters and participants to interact and explore multiple possibilities and lines of thought. These interactions are essential for thinking to develop. Those giving Keynote addresses, as well as session presenters, are encouraged to attend and be available for discussion regarding their session topics. Please come and share your thinking with others.

SPECIAL INTEREST GROUPS

TUESDAY, 8:15 PM

In order to facilitate networking between colleagues with similar interests, special interest group meetings will be combined with the Tuesday night ThinkFest held in the Dining 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 networking list with addresses and phone numbers.

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 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 the Affective dimension
 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
 Graduate Schools in Critical Thinking

EXHIBITORS

The Foundation for Critical Thinking

In the Dining Commons, Sunday through Wednesday

The Foundation for Critical Thinking, sister organization of the Center for Critical Thinking, will have an extensive exhibit of resources available for participants during the International Conference. On display will be books, video tapes, micro-publications, tee-shirts, sweat shirts, and book totes

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.

PUBLISHERS

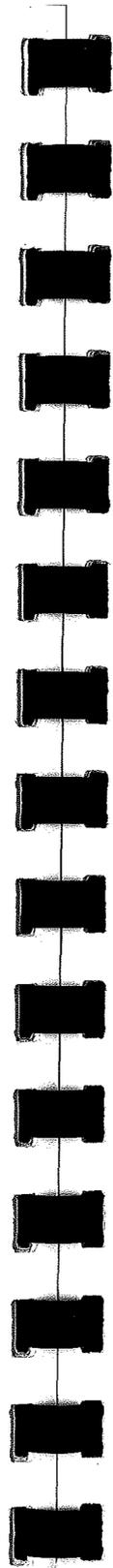
In the Dining Commons, Sunday through Wednesday

Various publishers will display educational and critical thinking products.

Sonoma State Bookstore

At Far End of Central Quad Area (past Commons)
Sunday through Wednesday

Each year, the bookstore carries books focused on critical thinking. These books either appear on the Center's bibliography or have been recommended by presenters. See book-list included in the conference handouts passed out at registration.



HOW TO FIND THE SESSIONS YOU WANT TO ATTEND

Due to the large number of sessions, we have organized the conference schedule both chronologically and by presenter name with session abstracts. The following recommendations may make planning easier.

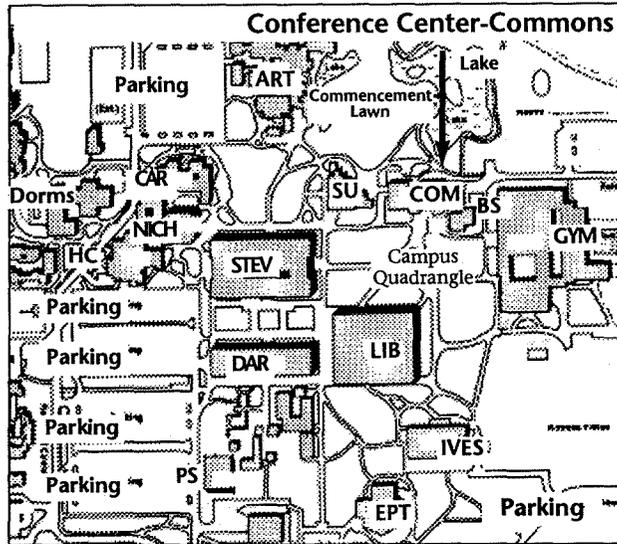
- Each session has audience codes which indicate the areas to be addressed. Most of these codes are assigned by the presenter. The key to these codes is located on page 18, as well as on the last page of the program.
- The conference schedule section is best used to view the schedule as a whole. It lists 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.
- There is a section with session abstracts which are listed alphabetically by the presenter's name. If there are some speakers you especially want to see, you can review their session abstract as well as find out when and where it will occur.
- If you are 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 what the structure of the session will be.

- For your convenience, we have included a planning guide on page 16. 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 passed out at registration) in your schedule.

INDIVIDUAL PLANNING GUIDE

	SUNDAY	MONDAY
9:00 AM to 10:15 AM	Keynote by Richard Paul (Evert Person Theater)	Keynote by Ralph Johnson (Evert Person Theater)
10:30 AM to 12:00 PM		
12:00 PM to 1:30 PM	For those not lodging on-campus, lunch is available for purchase inside the Commons at the Servery or at Pastries Plus. A barbeque is also offered outside of the Commons. For participants lodging on-campus, the Residence Dining Hall will be open from 12:00 P.M. - 1:30 P.M.	
1:30 PM to 3:00 PM		
3:15 PM to 4:45 PM		
5:00 PM		
6:00 PM		
7:00 PM	Keynote by Gerald Nosich (Evert Person Theater)	Keynote by Bill Dorman (Evert Person Theater)
8:30 PM	7:00 p.m. - 8:15 p.m.	7:00 p.m. - 8:15 p.m.
9:00 PM	ThinkFest, see page 10, (Dining Commons)	ThinkFest, see page 10, (Dining Commons)
10:00 PM	8:15 p.m. - 11:00 p.m.	8:15 p.m. - 11:00 p.m.
11:00 PM		

	TUESDAY	WEDNESDAY
9:00 AM to 10:15 AM	Keynote by Yehudi Webster (Evert Person Theater)	Sessions will start at 8:45 A.M.
10:30 AM to 12:00 PM		
12:00 PM to 1:30 PM	For those not lodging on-campus, lunch is available for purchase inside the Commons at the Servery or at Pastries Plus. A barbeque is also offered outside of the Commons. For participants lodging on-campus, the Residence Dining Hall will be open from 12:00 P.M. - 1:30 P.M.	
1:30 PM to 3:00 PM		Wrap-up session by Richard Paul (Warren Auditorium)
3:15 PM to 4:45 PM		
5:00 PM		
6:00 PM		
7:00 PM	Keynote by Linda Elder (Evert Person Theater)	
8:30 PM	7:00 p.m. - 8:15 p.m.	
9:00 PM	ThinkFest, including special interest groups, see page 10, (Dining Commons)	
10:00 PM	8:15 p.m. - 11:00 p.m.	
11:00 PM		



AUDIENCE CODES

ELEM	.....	elementary school
ELEM/MID	.....	elementary/middle school
MID	.....	middle school
COLL	.....	post-secondary education
ADV	.....	advanced session
ARTS	.....	the Arts
BEG	.....	beginners in critical thinking
BUS/ECON	.....	business/economics
COMP AID	.....	computer assisted instruction
ENV	.....	environment
FEM	.....	feminism
GEN	.....	general
HEALTH	.....	health sciences
H CON	.....	human conflicts
INF LOGIC	.....	informal logic
LANG	.....	language arts/English
MATH/SCI	.....	math/science
MEDIA	.....	media, media literacy
MUL-CULT	.....	multi-culturalism
NURS	.....	nursing
POL	.....	politics, political science
PSYCH	.....	psychology
SCIENCE	.....	science
SOC STUD	.....	social studies
SOCIOL	.....	sociology
STAFF DEV	.....	staff development
TACTIC/STRAT	.....	teaching tactics & strategies

CONFERENCE SCHEDULE

SUNDAY

9:00 AM - 10:15 AM

RICHARD PAUL **EPT**
Welcoming Address: Critical Thinking and Intellectual Discipline

10:30 AM - 12:00 PM

- LINDA ELDER **CAR 68**
Developing the Emotional Lives of Young Children
ELEM, BEG, TACTIC/STRAT
- JUDITH COLLISON **STEV 3008**
Mathematics, Science and Technology Education in the Northern Province of South Africa
GEN, TACTIC/STRAT, MUL-CULT, MATH
- MARK WEINSTEIN **STEV 2049**
Informal Logic As the Theory of Warrants *ADV, INF LOGIC*
- T. EDWARD DAMER **STEV 3046**
How to Distinguish "Good" Arguments from "Bad" Ones *MID/HIGH, COLL, BEG, INF LOGIC*
- X ROBERT H. ENNIS **ART 108**
Is Critical Thinking Culturally Biased? *ADV, COLL, INF LOGIC, PHIL*
- GERALD NOSICH **STEV 2006**
What Is Critical Thinking? Why Should I Teach for It? How Can I Teach for It? *GEN, BEG*
- IAN WRIGHT **STEV 3072**
Using the Social Studies Textbook to Teach Critical Thinking: You've Got to Be Kidding
BEG, MID/HIGH, SOC STUD, TACTIC/STRAT

SUNDAY

10:30 AM – 12:00 PM

Continued

- W*
WILLIAM B. STREAN CAR 20
How Do You Teach Critical Thinking to 200 Undergraduates (and Your Colleagues While You Are at It)? Tales from a Large Introductory Undergraduate Critical Thinking Course *COLL, TACTIC/STRAT, STAFF DEV, BEG*
- L*
LEE BROWN STEV 3036
Using Critical Thinking as a Reliable Vehicle for Promoting Intellectual Excellence in Students with Educationally Disadvantaged Backgrounds and in Students at Risk *GEN, TACTIC/STRAT, INTER DISC, MUL-CULT*
- ELEANOR VANETZIAN, BARBARA CORRIGAN** NICH 173
Improving the Critical Thinking Skills of Practicing Nurses Using Critical Incidents *NURSING, STAFF DEV, COLL, ADULT*
- URI ZOLLER** STEV 3026
Teaching, Assessment and Learning of Critical Thinking in the Service of Contemporary Science Education Reform *ASSES, GEN, SCIENCE, ENV*
- HARRIET CHAMBERLAIN**..... STEV 2065
Thinking for Life *ADULT, H CON, PHIL, PSYCH*
- JARED HAYNES** NICH 204
The Writing Strategies of College Students: Reflections of Cognitive Development *COLL, LANG, PSYCH, TACTIC/STRAT*
- SHIRLEY W. JACOB, CHRIS ELESER** STEV 3028
Service Learning in the Classroom *COLL, MID/HIGH, ASSES*
- JOHN MACKENZIE** STEV 3030
Theory of Knowledge: An International Baccalaureate Perspective on Critical Thinking
INTER DISC, PHIL, TACTIC/STRAT, HIGH, GEN
- DOUGLAS FELTER** STEV 3077
Script Doctors: Training Students to Use the Cinematic Image in Order to Foster Critical Thinking
MID/HIGH, LANG, MEDIA, ARTS
- HAROLD L. HAYES** NICH 304
Cross-Cultural Problems Motivate Critical Thinking
GEN, BEG, ENV, TACTIC/STRAT
- EVE HOMER TOLAN** CAR 10
Student Self-Assessment of Writing/Portfolios and Critical Thinking: Effective Rubrics *ASSES, LANG, HIGH, COLL*

- JOE M. STEELE** STEV 3038
The Transition from School to Work: Assessing Employability Skills *ASSES, BUS/ECON, COLL, ADULT*

12:00 PM – 1:30 PM

LUNCH

For those not lodging on-campus, lunch is available for purchase inside the Commons at the Seryery or at Pastries Plus. A barbeque is also offered outside of the Commons. For participants lodging on-campus, the Residence Dining Hall will be open from 12:00 p.m. - 1:30 p.m.

1:30 PM – 3:00 PM

- * **PHILIP CLAYTON, RICHARD PAUL** STEV 1002
Hot Topics Series: Religion and Critical Thinking *GEN*
- YEHUDI O. WEBSTER** CAR 68
Multi-Culturalism and Critical Thinking: Compatibility or Competition? *GEN, MUL-CULT*
- WILLIAM A. DORMAN** STEV 2049
Do the Media Undermine Democracy?
HIGH, COLL, MEDIA, POL
- DOUG BRENNER** STEV 3046
On Dipping the Toes into the Pool of Experience: Lessons from/in Teaching Critical Thinking for the First Time *BEG, COLL, TACTIC STRAT, INTER DISC*
- HARRY MAYO** ART 108
Rationale for Using Critical Thinking as a Mode of Instruction in a High School or College Classroom
BEG, COLL, STAFF DEV, TACTIC/STRAT
- REBECCA SKAGGS, THOMAS HART** STEV 2006
Knowledge of Things Unseen *COLL, GEN, PHIL, INTER DISC, PSYCH*
- DIANNE ROMAIN** CAR 20
Questioning Emotion: The Heart of Choice
H CON, INTER DISC, FEM, COLL, HIGH, ADULT
- VINCENT MIHOLIC, CHRIS ELESER** NICH 173
Photography: A Metaphor and Tool for Critical Thinking and Writing *TACTIC/STRAT, BEG, LANG, COLL*
- DANIEL NOMISHAN** STEV 3026
Advanced Strategies and Approaches for Teaching Critical Thinking in the Content Areas
GEN, TACTIC STRAT, INTER DISC, STAFF DEV, MATH/SCI

SUNDAY

1:30 PM - 3:00 PM

Continued

- MARILYN A. CAIRNS NICH 204
Developing Critical Thinking Skills in Clinical Programs
 COLL, HEALTH, TACTIC/STRAT, NURS
- TOM DOYLE STEV 3030
"Humanitas" in Los Angeles: Interdisciplinary Instruction as an Emerging Third Wave Reform
 MID/HIGH, INTER DISC, TACTIC/STRAT, STAFF DEV
- NATHAN LEVY STEV 3028
Practical Ideas, Activities, Strategies, and Materials to Stimulate Integrated Thinking in the Classroom
 K-12, INF LOGIC, STAFF DEV, TACTIC/STRAT
- DEBORAH E. STINE CAR 30
Teaching Critical Thinking Through Writing Across the Disciplines INTER DISC, TACTIC/STRAT, COLL, HIGH
- VICTORIA ALLEN STEV 3076
Introduction to Socratic Seminars (Part 1)
 GEN, INTER DISC, TACTIC STRAT, STAFF DEV
- CATHARYN HATCHER-ENGLAND STEV 3077
Introduction to Socratic Seminars (Part 1)
 GEN, INTER DISC, TACTIC STRAT, STAFF DEV
- WAYNE R. MORGAN, JR. STEV 2001
Instructional Strategies and Techniques for Improving and Assessing Critical Thinking
 TACTIC/STRAT, ASSES, STAFF DEV, GEN
- MICHAEL A. GRIFFIN NICH 304
Critical Thinking: A Practical Guide (Part 1)
 HIGH, COLL, H CON, INF LOGIC
- LYNN J. LOFTHOUSE, LYNN R. CLAPHAM STEV 3038
Conflict Pattern Assessment Techniques: Training Individuals to Better Identify Underlying Structures
 GEN, H CON, TACTIC/STRAT

SUNDAY

3:15 PM - 4:45 PM

- LINDA ELDER, YEHUDI O. WEBSTER STEV 1002
Hot Topics Series: Critical Thinking and Romantic Relationships GEN
- JOHN HOAGLUND, RALPH H. JOHNSON, ROBERT H. ENNIS, T. EDWARD DAMER CAR 68
Ralph Johnson's *The Rise of Informal Logic*
 ADV, COLL, INF LOGIC, PHIL
- MARLYS MAYFIELD STEV 3008
Teaching for Emotional Intelligence
 COLL, STAFF DEV, TACTIC/STRAT, H CON
- WENDY OXMAN STEV 2049
Teachers' Conceptions of the Theory and Practice of Critical Thinking as an Educational Ideal
 GEN, BEG, TACTIC/STRAT, STAFF DEV
- NORMAN UNRAU ART 108
Talking Arguments TACTIC/STRAT, MID/HIGH, BEG, STAFF DEV
- ANDREA RENWANZ-BOYLE, KAREN WILLIAMS, SANDRA MACKAY CAR 20
Strategies to Integrate Critical Thinking into Undergraduate and Graduate Nursing Education
 ADV, COLL, NURS, TACTIC/STRAT
- DONALD L. HATCHER, LUCY PRICE STEV 3036
Some Keys to a Successful Critical Thinking Program
 COLL, ASSES, INF-LOGIC, PHIL
- JOHN R. FEARE STEV 3049
Critical Thinking Within a Theological Dimension
 GEN, H CON, TACTIC/STRAT
- CANDACE JESSE STOUT NICH 173
On Ponderings and Paintings: The Role of Critical Thinking in the Appreciation of Art
 COLL, HIGH, ARTS, TACTIC/STRAT
- PHILIPPA GERBIC, JENNY BYGRAVE STEV 3026
Critical Thinking Graduates: A Curriculum Development Case Study in Business BUS/EGON, INTER DISC, COLL, TACTIC/STRAT
- DAWN DOLAN, JOEL RUDINOW NICH 204
Moving from Textbook-Centered Learning to Student-Centered Learning COLL, TACTIC/STRAT, ASSES, LANG
- SILVIA YBARRA, JOHN HOLLINGSWORTH STEV 2065
Getting Classroom Assessment Right
 ASSES, MATH/SCI, SOC STUD, K-12

SUNDAY

3:15 PM – 4:45 PM

Continued

- RON BOHANNON..... STEV 3030
Dialectic Angst: Curriculum and the Classroom
ADV, MID/HIGH, PHIL, SOC STUD, H CON, TACTIC/STRAT
- DANIEL O'CONNELL..... STEV 3028
Critical Thinking in Politics: The Practice of Public Deliberation in National Issues Forums
COLL, ADULT, POL, SOC STUD, TACTIC/STRAT, SOCIOL
- VICTORIA ALLEN..... STEV 3076
Introduction to Socratic Seminars (Part 2)
GEN, INTER DISC, TACTIC STRAT, STAFF DEV
- CATHARYN HATCHER-ENGLAND..... STEV 3077
Introduction to Socratic Seminars (Part 2)
GEN, INTER DISC, TACTIC STRAT, STAFF DEV
- MICHAEL A. GRIFFIN..... NICH 304
Critical Thinking: A Practical Guide (Part 2)
HIGH, COLL, H CON, INF LOGIC
- JUDITH BANK..... STEV 3038
Fighting the Culture Wars: Thinking Critically in Multiculturalism—Analyzing Popular Culture
COLL, MUL-CULT, LANG, INTER DISC

7:00 PM – 8:15 PM

GERALD NOSICH..... **EPT**
Keynote: Critical Thinking and a Scientific World View

8:15 PM – 11:00 PM

EVENING SOCIAL..... DINING COMMONS
 Please see page 10 for details.

MONDAY

9:00 AM – 10:15 AM

RALPH JOHNSON..... **EPT**
Keynote: Critical Thinking and Command of Language

10:30 AM – 12:00 PM

- RALPH H. JOHNSON, DIANNE ROMAIN..... STEV 1002
Hot Topics Series: Feminism and Critical Thinking GEN
- DONALD L. HATCHER..... CAR 68
What Is the Role of Formal Logic for Critical Thinking?
COLL, ASSES, INF LOGIC, PHIL
- T. EDWARD DAMER..... STEV 3008
How to Resolve Disagreements on Controversial Issues
BEG, COLL, INF LOGIC, H CON
- YEHUDI O. WEBSTER..... STEV 2049
On Becoming a (Better?) Critical Thinking Instructor: The Elements of Thought GEN
- JOHN HOAGLUND..... STEV 3072
The College Critical Thinking Course: Options and Challenges COLL, TACTIC/STRAT
- PENNY HEASLIP..... CAR 20
Globalization of Dialogue and Debate: Critical Thinking Through Computer Interest Groups GEN, NURS, COLL
- PAUL NEWBERRY..... STEV 3049
Discussion, Journals, and Critical Thinking COLL, TACTIC/STRAT
- ROBERT KUBEY..... NICH 173
Obstacles to Critical Thinking About the Media: An International Perspective MEDIA, STAFF DEV, H CON, INTER DISC, ADV
- ROGER OCHSE..... STEV 3026
Critical Thinking: A Model for Collaborative Research
GEN, TACTIC/STRAT, INTER DISC
- DIXON WRAGG..... STEV 2052
Sex, Shame and Society BEG, GEN, FEM
- JUANITA HOLLIMAN..... STEV 2065
"Dialogical Thinking" Used as a Teaching Strategy for Topics On Health Care Reform GEN, NURS, TACTIC/STRAT, SOCIOL
- WILLIAM LOVELESS..... NICH 204
Critical Thinking as a Business Enterprise ADULT, BUS/ECON, PSYCH, STAFF DEV

MONDAY

10:30 AM - 12:00 PM

Continued

- KATHLEEN M. HERSCHELMANN STEV 3028
Using Critical Thinking in Career Decision Making
MID, INTER DISC, BUS/ECON, LANG
- C. LINCOLN JOHNSON STEV 3030
Social Psychological Principles Underlying Critical Thinking in the Classroom and in Everyday Life
GEN, INTER-DISC, PSYCH, TACTIC/STRAT
- TED M. KRAUS STEV 2001
Introducing Critical Thinking to Senior Citizens via Critical Analysis of Arts Reviews *ADULT, ARTS, MEDIA, LANG*
- DANIEL C. ABEL, ROBERT L. MCCONNELL NICH 304
Fish Kill: An Interactive Game that Promotes Critical Thinking *COLL, MID/HIGH, SCIENCE, ENV*
- * MEERA KUMAR STEV 3077
Critical Thinking in Indian and Chinese Philosophies
MUL-CULT, PHIL, GEN, INTER DISC

12:00 PM - 1:30 PM

LUNCH

For those not lodging on-campus, lunch is available for purchase inside the Commons at the Servery or at Pastries Plus. A barbeque is also offered outside of the Commons. For participants lodging on-campus, the Residence Dining Hall will be open from 12:00 p.m. - 1:30 p.m.

1:30 PM - 3:00 PM

- PHILIP CLAYTON, RICHARD PAUL STEV 1002
Hot Topics Series: Philosophy and Critical Thinking *GEN*
- LINDA ELDER CAR 68
Using the Elements and the Standards in the K-6 Classroom *ELEM, BEG, TACTIC/STRAT*
- YEHUDI O. WEBSTER STEV 2049
Are There White and Black People? Reasoning About Racial Classification *GEN, SOC STUD, MUL-CULT*
- MARK WEINSTEIN ART 108
A Comprehensive Approach of Instructional Planning
HIGH, COLL, STAFF DEV, TACTIC/STRAT

- DIXON WRAGG STEV 2006
Critical Thinking and Social Responsibility
BEG, GEN, POL, H CON
- MARSHA E. FONTEYN CAR 20
Thinking in Clinical Practice *COLL, ADV, HEALTH, NURS*
- RICHARD B. LEWIS STEV 3036
Infusing Critical Thinking into Every Classroom Activity
TACTIC/STRAT, MATH/SCI, ADV, COLL
- 7 JOHN R. FEARE STEV 3049
Beyond Speechmaking and the Marketplace of Ideas: A Radical Transformation in Communication
GEN, H CON, TACTIC/STRAT *Get into the book*
- PIERRE LAROCHE, STEVE LUDINGTON NICH 173
Writing: Learning to Think Critically, Rhetorically and Conventionally *COLL, LANG, TACTIC/STRAT, INTER DISC*
- WILLIAM LESLIE STEV 3026
Who Killed T-Rex? *SCIENCE, PHIL, TACTIC/STRAT*
- BRUCE W. DAVIDSON STEV 2065
Assessing Japanese Student Progress in Critical Thinking with the Ennis-Weir Critical Thinking Essay Test
COLL, ASSES, INTER DISC
- NATHAN LEVY NICH 204
Teaching Gifted Children in the Regular Classroom
K-12, INF LOGIC, STAFF DEV, TACTIC/STRAT
- CHRISTOPHER GILBERT STEV 3028
The Poem As Identity: Act, and Act. . .
ARTS, PHIL, MUL-CULT, GEN
- GAIL HUGHES, HEIDI GOAR, SUE SORHEIM, ROBERT ENNIS STEV 3030
Using Framework Questions to Teach and Assess Critical Thinking *INF LOGIC, ASSES, TACTIC/STRAT, STAFF DEV*
- LES GOTTESMAN STEV 2001
Hermeneutics: What Is It? Is It Critical?
TACTIC/STRAT, PHIL, ADULT, COLL
- GLENDA W. BEAMON NICH 304
Are Your Classrooms "Safe" for Thinking?
TACTIC/STRAT, GEN, INTER DISC, STAFF DEV
- CAROL J. CALELLA CAR 10
Knowledge and Application of Brain-Based Learning Theory: Segue to Critical Thinking
GEN, TACTIC/STRAT, STAFF DEV, BEG
- 7 K. HELMUT REICH STEV 2050
From Either-Or to Both-And: Stimulation of Relational and Contextual Reasoning
GEN, INF LOGIC, INTER DISC, H CON, TACTIC/STRAT

MONDAY

3:15 PM - 4:45 PM

- LINDA ELDER, DIANNE ROMAIN STEV 1002
Hot Topics Series: Passion vs. Reason GEN
- GERALD NOSICH CAR 68
Thinking About the Logic of a Field or Discipline
MID/HIGH, COLL
- GORDON BRUMM STEV 2006
Reasoning, Its Low Estate in American Life, and How Its
Friends May Help ADULT, MEDIA, INF LOGIC, POL, H CON
- WEBSTER E. COTTON ART 108
Thinking and Being Human: The Radical Perspective of
Hannah Arendt GEN, PHIL, POL, PSYCH
- PAUL TRUMMEL STEV 3072
Socrates and Kinetography: Secondary Orality and the
Rebus Principle GEN, INTER DISC, TECH, LANG
- PHILLIP W. PAYTON CAR 20
Socratic Questioning and Critical Thinking: Mergers,
Layoffs, Downsizings—or New Business Policies?
COLL, ADULT, SOC STUD, TACTIC/STRAT, BUS/ECON
- JERRY HERMAN STEV 3036
The Critical Thinking Group Project From Hell, or, "This
was the most valuable lesson I have ever learned in my
whole entire life." COLL, TACTIC STRAT, MEDIA, LANG
- MAUREEN NILAND STEV 3049
Critical Thinking: Using Clinical Simulation for
Assessment and for Teaching Reasoning Process
COLL, NURS, ASSES, TACTIC/STRAT
- TOM DOYLE STEV 3040
Critical Thinking in High School History Courses:
Enabling Students to Become Historical Thinkers
MID/HIGH, INTER DISC, TACTIC/STRAT, STAFF DEV
- KRISTAN CAVINA STEV 3026
Using Discovery Techniques to Build Student
Understanding of Writing Concepts LANG, TACTIC/STRAT, COLL
- DON RICE STEV 2052
Critical Thinking: Another Way of Teaching
LANG, TACTIC/STRAT, ASSES, STAFF DEV
- FRANK HUGHES NICH 204
The Master's Thesis: A Practicum in Critical Thinking
and Argumentation for National Security Estimates
COLL, ADV, INF LOGIC, TACTIC/STRAT

- RON BOHANNON STEV 3030
Collective Individualism: In Christ and Socrates
ADV, MID/HIGH, PHIL, SOC STUD, H CON, TACTIC STRAT
- WAYNE R. MORGAN, JR., EMMETT L. WRIGHT STEV 3028
Assessing the Critical Thinking of Students: The
Relationship Between Instruction and Thinking
ASSES, TACTIC/STRAT, SCIENCE, K-12
- SHIRLEY W. JACOB, CHRIS ELESER CAR 10
Empowering Students in the Learning Process Through
Their Presence COLL, MID/HIGH, ASSES
- MAURICIA DE OLIVEIRA, CELINA T. VIEIRA NICH 304
Critical Thinking in Science Education: Proposal of a
Work Instrument to Develop Activities that Infuse
Critical Thinking into Science Contents GEN, BEG, SCIENCE, ENV
- WILLIAM L. HOOPER STEV 3077
Assignments That Require Thinking COLL, TACTIC/STRAT, ARTS
- CHRIS KUCHURIS STEV 3038
Imagination and Critical Thinking
TACTIC/STRAT, BEG, SOCIOL, GEN

7:00 PM - 8:15 PM

- WILLIAM A. DORMAN EPT
Keynote: Mass Media and Critical
Thinking: Reasoning for a Second-Hand
World

8:15 PM - 11:00 PM

- EVENING SOCIAL DINING COMMONS

TUESDAY

9:00 AM - 10:15 AM

- YEHUDI O. WEBSTER EPT
Keynote: Critical Thinking and Racial
Identity

TUESDAY

10:30 AM – 12:00 PM

- T. EDWARD DAMER, WILLIAM A. DORMAN STEV 1002
Hot Topics Series: Politics and Critical Thinking GEN
- RICHARD PAUL SU 100
Introduction to Assessment GEN, TACTIC/STRAT, STAFF DEV
- GERALD NOSICH CAR 68
Thinking Realistically About Anger GEN
- CANDACE JESSE STOUT, SAM D. STOUT STEV 2049
Multicultural Reasoning Through the Visual Arts
 COLL, ADV, ARTS, MUL-CULT
- A. EARL MCCAIN STEV 2006
The Case Study: A Base for Analytical Operations
Components of Critical Thinking BEG, GEN, TACTIC/STRAT
- ANN KERWIN, CHARLES L. WITTE *get into* STEV 3072
 MARLYS H. WITTE
Q-Value (Power to Generate Earnings) and the Value of
Q (Questioning) GEN, TACTIC/STRAT, STAFF DEV
- PENNY HEASLIP CAR 20
Microthemes: The Reading, Writing, Thinking
Connection GEN, NURS, COLL, HIGH
- DAN BURRITT STEV 3036
Using Reciprocity with Learning Disabled Students in
the Elementary Grades - A Step Towards Becoming a
Critical Thinker K-12, TACTIC/STRAT, LANG, MATH
- GORDON LEON BLACK STEV 3049
Emotion and Critical Thinking GEN, TACTIC/STRAT, LANG, INF LOGIC
- GARY DRAPER NICH 173
Learning to Teach Young Children (K-8) the Creative
Process K-12, ARTS
- COLEMAN J. GOIN STEV 3026
They Said It: Using Quotes to Teach Historical Thinking
 SOC STUD, TACTIC/STRAT, H CON, MUL-CULT, GEN
- RON BOHANNON STEV 3030
The Dialectic/Pragmatic Paradox
 ADV, MID/HIGH, PHIL, SOC STUD, H CON, TACTIC-STRAT
- * JOEL RUDINOW, DAWN DOLAN LIB 1106
A Critical Thinking Course for the Computer Age
 COLL, COMP AID, TACTIC STRAT, TECH

- JENNIE S. CONN STEV 3038
The Necessity of Moral Critique in Education From the
Viewpoint of John Dewey and Paulo Friere and Its
Relation to the Education of the African American Male
 GEN, PHIL, MUL-CULT
- MAURICIA DE OLIVEIRA, RUI M. VIEIRA STEV 2050
The Courseware Development to Enhancing Critical
Thinking Skills ELEM/MID, BEG, COMP AID, SCIENCE, TECH, HEALTH
- MELVIN POAGE CAR 10
A Critical Thinking Approach to Developmental Math
 HIGH, COLL, ADULT, MATH
- ADRIAN ADAMSON STEV 2055
Integrating Critical Thinking into a Multi-Media CBT
Program COLL, ADULT, BUS/ECON, COMP AID

12:00 PM – 1:30 PM

LUNCH

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1:30 PM – 3:00 PM

- GERALD NOSICH, IAN WRIGHT STEV 1002
Hot Topics Series: Morality and Critical Thinking GEN
- * RICHARD PAUL SU 100
Critical Thinking Tests: Their Strengths and Weaknesses
 GEN, TACTIC/STRAT, STAFF DEV
- LINDA ELDER CAR 68
The Role of Non Egocentric Thinking in Developing a
Rational Mind GEN
- RALPH H. JOHNSON STEV 2049
The Need for a Dialectical Tier in Arguments
 ADV, COLL, INF LOGIC, PHIL
- * GEORGE HAMMERBACHER STEV 2006
Faculty Development in Thinking Across the Curriculum
 COLL, STAFF DEV, INTER DISC, TACTIC/STRAT
- EDNA MAYE LOVELESS ART 108
A Rhetoric of Integrity: Women of Note Who Have
Exhibited Critical Thinking Skills Worthy of Examination
 LANG, FEM, MID/HIGH, COLL

TUESDAY

1:30 PM – 3:00 PM

Continued

- PENNY HEASLIP CAR 20
Classroom Assessment of Critical Thinking Learning Activities *GEN, NURS, COLL, HIGH*
- JOHN G. STUTTS, MICHAEL R. EMERSON, STEV 3036
 JEFF JOHNSTON
Integrating Critical Thinking into the Curriculum: The United States Air Force Academy Example
COLL, STAFF DEV, TACTIC/STRAT, BEG
- LYN FREEMAN NICH 173
Critical Thinking and Health Care Management: The Incorporation of Intellectual Strategies in a Research Based Intervention for Adult Asthmatics
COLL, HEALTH, ASSES, TACTIC/STRAT, PSYCH
- JUDITH COLLISON STEV 3049
Assessing Science Curriculum Materials in Light of the AAAS Benchmarks and the NRC National Science Education Standards *GEN, ASSES, SCIENCE*
- BUNNY JONES STEV 3026
Identifying Biases and Broadening Perspectives
TACTIC/STRAT, COLL, HIGH, BEG
- JEFFREY DONNELL, KRISTEN KANN NICH 204
From Lab to Laptop: Critical Thinking, Scientific Method and Technical Writing *COLL, TACTIC/STRAT, MATH/SCI, TECH*
- JAMES ROSENBERGER STEV 2065
Thinking About Reform in Teacher Evaluation and Professional Development *K-12, STAFF DEV, TACTIC/STRAT, ASSES*
- JOAN LIVINGSTON PROUTY STEV 3028
Becoming Literate: Complexities at the Close of the Twentieth Century *K-12, ADV, LANG, ASSES*
- CHRISTOPHER GILBERT NICH 304
Writing in the Scaffolding: Acquiring Disciplinary Concepts/Enactments as Reflective Practitioner
PSYCH, COLL, HEALTH, ASSES
- JUDY DOWNS-LOMBARDI STEV 2050
Society's Child: A Mini-Workshop in Critical and Creative Thinking *GEN, BEG, INTER-DISC, TACTIC/STRAT*
- LYNN J. LOFTHOUSE, LYNN R. CLAPHAM STEV 3038
Techniques to Inspire Critical Thought When Teaching Kindness to Animals: An Interactive Approach
ELEM, ENV, SOC STUD, TACTIC/STRAT

3:15 PM – 4:45 PM

- GEORGE H. HANFORD, YEHUDI O. WEBSTER STEV 1002
Hot Topics Series: Bureaucracy and Critical Thinking *GEN*
- RICHARD PAUL SU 100
How to Teach Students to Assess Their Own Work
GEN, TACTIC/STRAT, STAFF DEV
- THOMAS HART STEV 2006
Riding the Third Wave To Develop Critical Thinking and Writing Assessment *COLL, ASSES, LANG, TACTIC/STRAT, INF LOGIC*
- THERESA M. BECKIE, ROSEMARY KELLER CAR 20
Implementation of Critical Thinking into a New Undergraduate Nursing Curriculum: The Agony and Ecstasy One Year Later *BEG, NURS, TACTIC/STRAT, HEALTH*
- NORMAN BETZ STEV 3049
Critical Thinking and the Assessment Ideas of Grant Wiggins *COLL, ASSES, TACTIC/STRAT, PHIL*
- ROBERT L. MCCONNELL, DANIEL C. ABEL NICH 173
Countering Misrepresentation of Environmental Issues Using Critical Thinking and Simple Math
COLL, MID/HIGH, ENV, MATH/SCI
- DON FAWKES STEV 3026
Applying Critical Thinking to Administrative Practice
GEN, INTER DISC, BUS/ECON, H CON
- DIXON WRAGG STEV 2052
Nonrational Determinants of Thinking: The Real Reasons We Believe What We Believe
BEG, GEN, SOCIOL, MUL-CULT
- JOHN H. BRYANT NICH 204
Critical Thought Frames a Value-Rich Education
HIGH, COLL, TACTIC/STRAT, STAFF DEV
- BARBARA T. WARD STEV 2065
Teaching Work Related Report Writing as an Introductory Exercise in Critical Thinking
TACTIC/STRAT, INF LOGIC, HIGH, COLL
- LAUREN COODLEY, CLARENCE KENT, ROBERT WRIGHT. STEV 3028
Teaching Upton Sinclair: A Case Study in Critical Thinking *COLL, GEN, INTER DISC, POL, ARTS, PHIL*
- GEORGE M. LUCKEY, JR. STEV 3030
Fostering Dispositions *GEN, BEG, TACTIC/STRAT*

TUESDAY

3:15 PM – 4:45 PM

Continued

- CAROL KOEHLER STEV 2001
**An Investigation of Variables that Define Collaborative
 Critical Thinking** *COLL, ASSES, INF LOGIC, PSYCH*
- HELEN E.R. DITZHAZY NICH 304
**Charter Schools a 90's Phenomenon: Impetus for School
 Reform, Passing Fancy, or Right Wing Attempt to Get
 Aid for Private and Religious Schools**
H CON, PHIL, POL, MUL-CULT, GEN
- NATHAN LEVY STEV 3077
Using Stories With Holes and Other Thinking Skills
K-12, INF LOGIC, STAFF DEV, TACTIC/STRAT
- DARRELL E. COSTA CAR 10
**Diagnosing the "D.ogue Virus": Self-Therapy in a World
 of Demagoguery and Language Disease (from the
 Declaration of Independence to the Unabomber's
 Manifesto!)** *COLL, LANG, POL, INF LOGIC*
- BARBARA ANN ROSS, SARAH H. BECKMAN STEV 2055
**Workshop on Teaching Undergraduate Research from a
 Critical Thinking Perspective** *COLL, INTER DISC, TACTIC/STRAT, NURS*
- JAMES QUINA STEV 3008
World Views as a Basis for Curriculum Development
TACTIC/STRAT, MID/HIGH, LANG, PHIL

7:00 PM – 8:15 PM

- LINDA ELDER EPT
**Keynote: Critical Thinking and Emotional
 Intelligence**

8:00 PM – 11:00 PM

**SPECIAL INTEREST GROUPS AT
 EVENING SOCIAL DINING COMMONS**
 Please see page 10 for details.

WEDNESDAY

8:45 AM – 10:15 AM

- RICHARD PAUL STEV 1002
Critical Thinking and Informal Logic *GEN, ADV, INF LOG*
- LINDA ELDER CAR 68
**The Emotional Lives of Students: Understanding the
 Link Between Students' Desires and Feelings, and Their
 Classroom Experiences** *GEN*
- CHARLES V. BLATZ STEV 2049
**Can There Be a Comprehensive Theory of Critical
 Thinking?: Relating Universal and Particular Elements of
 Critical Thought** *ADV, PHIL, MUL-CULT, INTER DISC*
- DAVID LAKE ART 108
**Problem-Based Learning (PBL) as a Critical Thinking
 Teaching Methodology** *HEALTH, TACTIC/STRAT, COLL, BEG*
- MARY ANNE PHELAN STEV 3072
**Helping Adult Learners Overcome Alienation: What Role
 for Critical Thinking?** *ADULT, PHIL, TACTIC/STRAT*
- BRUCE W. DAVIDSON NICH 173
**Does Religious Faith Mean Uncritical Thinking?:
 Exploration of a False Dilemma** *PHIL, GEN*
- JAMES A. JOHNSON, BILL W. SANDERSON STEV 2065
**The Use of Critical Thinking to Enhance Health
 Professions Career Choices in Adolescents** *MID/HIGH, ADV,
 HEALTH, INTER DISC*
- RENÉE RUDERMAN STEV 2001
**Feverish and Fiery Discussions — An Experiential
 Demonstration Leading to Critical Thinking**
TACTIC/STRAT, INTER DISC, H CON, COLL
- WILLIA L. NWA NICH 304
**Thinking Critically About Cultural Diversity: How Should
 Educators Do It?** *COLL, MID/HIGH, H CON, MUL-CULT*
- LINDA Q. SMITH STEV 3077
The Thinking Machine: Chess in the School
MID, TACTIC/STRAT, ELEM/MID, INTER DISC
- VELMA HEPBURN-THURMOND STEV 3038
Homeless Youth: Thinking for Tomorrow
TACTIC/STRAT, H CON, MUL-CULT, STAFF DEV
- YUN JA LASSEK CAR 10
**New Tools for Education: Using Computer Power to
 Promote Critical Thinking** *COLL, K-12, COMP AID, TACTIC/STRAT*

WEDNESDAY

10:30 AM - 12:00 PM

- RICHARD PAUL STEV 1002
Strategies for Long-Term Staff Development in Critical Thinking *GEN, TACTIC/STRAT, STAFF DEV*
- SUE Y. LUCKEY CAR 68
Project Roller Coaster: A Model to Produce Problem Solvers and Critical Thinkers
HIGH, INTER DISC, TACTIC/STRAT, STAFF DEV, BUS/ECON
- LYNN P. DIETER ART 108
A Model to Teach Critical Thinking and Ethical Decision Making *GEN, TACTIC/STRAT, LANG, INTER DISC*
- WILLIAM DRUMIN NICH 173
Using Critical Thinking to Combat Deceptive Practices in Mail Offerings, Promotions, and Advertisements
INF LOGIC, MEDIA, LANG ART, PSYCH
- SALLY BRYANT STEV 3026
Critical Theory and Hermeneutics: The Role of Language *COLL, ADV, BUS/ECON, H CON*
- MARSHA E. FONTEYN STEV 2052
Strategies for Improving Students' Critical Thinking Skills *COLL, ASSES, HEALTH, TACTIC/STRAT*
- MARY ANNE HEDRICH NICH 204
The Challenge to Prepare Discipline-Focused Students in Professional Education Programs to Incorporate Critical Thinking into Their Teaching Methodology
COLL, HEALTH, INTER DISC
- LLOYD PEAKE, JOHN SEALANDER STEV 2065
Affirmative Action —The Anomaly of Inequality
COLL, H CON, MUL-CULT, BUS/ECON, POL
- HELEN E.R. DITZHAZY STEV 3028
Transcendent Thinking about the Conflicts: The Question Is Not Whose, but What, to Include the Religious Right *GEN, H CON, PHIL, POL*
- F. BRYAN COOPER STEV 3077
Improving on Benjamin Franklin: Can One Use Critical Thinking to Make Better Decisions? *COLL, ADULT, BUS/ECON, TECH*
- JAVIER PINEDO STEV 3038
Hands & Minds On: Chess and 3D Puzzles in the Classroom *GEN, INTER DISC, MATH, INF LOGIC*

12:00 PM - 1:30 PM

LUNCH

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1:30 PM - 3:00 PM

WRAP-UP SESSION WITH RICHARD PAUL WARREN AUDITORIUM
Back to Reality: Bringing the Conference Insights into the Everyday Classroom (this will be an interactive session)

CONFERENCE ABSTRACTS

ABEL, DANIEL C. MON 10:30; NICH 304
Instructor of Marine Science, Coastal Carolina University

ROBERT L. MCCONNELL
Professor, Environmental Science and Geology, Mary Washington College
Fish Kill: An Interactive Game that Promotes Critical Thinking
COLL, MID/HIGH, SCIENCE, ENV

Science is often taught through memorization of disjointed facts and the use of sterile, make-work exercises. As an alternative, we have devised a game in which students develop critical thinking skills while independently or collaboratively determining the likely cause of a hypothetical fish die-off. The game is designed to promote: analysis, insight, evaluation, awareness of assumptions, accuracy and precision in communication, and handling of multiple working hypotheses. Participants will play an abbreviated version of the game. No specialized knowledge of fish kills is required.

ADAMSON, ADRIAN TUES 10:30; STEV 2055
Professor, Economics-Liberal Arts Division, Humber College

Integrating Critical Thinking into A Multi-Media CBT Program
COLL, ADULT, BUS/ECON, COMP AID

Educational funding cuts have increased pressure to replace traditional teaching with commercial computer-based training (CBT) methods. Often such methods concentrate on data-recall and lower levels of understanding, while ignoring critical thinking. In an effort to protect quality education and higher-order learning many teachers question and resist such innovations.

This session will illustrate that there is room for both and demonstrate one teacher's success at integrating critical thinking into an economics course that involves interactive computer-based technology as well as small class seminars, using Asymetrix ToolBox 4.0. Advantages and drawbacks will be described with hands-on experience provided for participants.

ALLEN, VICTORIA SUN 1:30; STEV 3076
Facilitator/Trainer, Bay Area Socratic Seminars SUN 3:15; STEV 3076

HATCHER-ENGLAND, CATHARYN SUN 1:30; STEV 3077
Facilitator/Trainer, Bay Area Socratic Seminars SUN 3:15; STEV 3077

Introduction to Socratic Seminars (Part 1 & 2)
GEN, INTER DISC, TACTIC STRAT, STAFF DEV

The Socratic seminar leader assumes that knowledge and understanding are better achieved when actively constructed rather than passively received. Thus, learning is the new creation of cooperative action rather than the product of a teacher's or student's solo effort. The seminar leader must draw out multiple perspectives on texts, insist that all interpretations be supported by textual evidence and clear reasoning and help participants think about substantive agreements and disagreements.

In this session participants will have the opportunity to engage in and critique Socratic dialogue. The facilitators will offer exercises and tools which can help to develop the "seminar attitude" and effective dialogue skills. This will be a "minds on" experience in learning how to learn. (This is a two-part session in two rooms.)

BANK, JUDITH SUN 3:15; STEV 3038
Language Arts Department, Los Medanos College

Fighting the Culture Wars: Thinking Critically in Multiculturalism—Analyzing Popular Culture *COLL, MUL-CULT, LANG, INTER DISC*

Any course on multiculturalism or ethnic studies comes with a core issue which must be analyzed: assimilation vs. cultural pluralism as national goal; melting pot vs. salad bowl as vision; individualism vs. group identity as personal identity; i.e. the culture wars. Lack of critical thinking skills limits students' ability to little more than generalizing from personal experiences and recreating or reinforcing stereotypes. In my "Reflections" course I teach students how to analyze and critique the nuances of identity in selected popular films and novels, which also teaches them the source of many of their cultural assumptions about each other and themselves. I will show selections from my film course and hand out the structured discussion and critique questions which relate back to the core issue. My course satisfies the U.C. American Cultures requirement.

BEAMON, GLENDA W. MON 1:30; NICH 304
Chair, Department of Education, Elon College

Are Your Classrooms "Safe" for Thinking?
TACTIC/STRAT, GEN, INTER DISC, STAFF DEV

What makes a classroom "safe" for thinking? Much of the answer lies in current cognitive research that emphasizes the importance of an interactive, challenging and dynamic learning environment. The interactive session proposes a "safe-for-thinking" framework based on brain-compatible cogni-

tive instruction, strategic inquiry-oriented questioning techniques and process-based assessment models for teacher practices and student thinking articulation. Participants will learn to construct questioning sequences that help students process information more meaningfully and to respond on an increasingly complex level. Authentic classroom scenarios are profiled across a range of content areas to illustrate cognitive theory-into-practice.

BECKIE, THERESA M.

Assistant Professor, University of South Florida

TUES 3:15; CAR 20

ROSEMARY KELLER

Education Specialist, St. Joseph's Hospital

Implementation of Critical Thinking into a New Undergraduate Nursing Curriculum: The Agony and Ecstasy One Year Later

BEG, NURS, TACTIC/STRAT, HEALTH

This session will describe the process of planning and implementing critical thinking into a new college nursing curriculum from the creation of course syllabi to assignments and appropriate classroom behavior and clinical judgment. Teaching strategies utilizing case studies, case scenarios, news media critique, and questioning will be shared with participants. The efforts were based on Paul's model of critical thinking including elements, standards, dispositions and skills. The obstacles to implementing critical thinking for the first time including student resistance, faculty ambivalence, and time constraints will be discussed; participants will be asked to share their anti-resistance strategies and solution. Strategies to assist students to move from a Stage II challenged thinker to a Stage III beginning thinker will be explored.

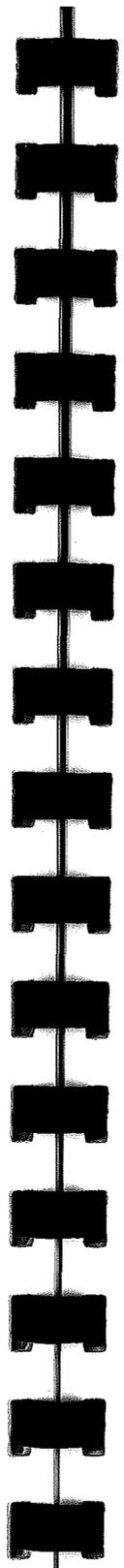
BETZ, NORMAN

Associate Professor of English and Philosophy, Central Missouri State University

TUES 3:15; STEV 3049

Critical Thinking and the Assessment Ideas of Grant Wiggins *COLL, ASSES, TACTIC/STRAT, PHIL*

This will be an interactive session based on the assessment of great notions of Grant Wiggins. First the participants will respond to a handout of Wiggins's assessment principles. Then the participants will discuss the assumptions and values present in Wiggins and ways to implement his notions in the classroom—assuming that his ideas do create the “condition of possibility” for critical thinking. At the end the presenter will offer materials showing his own attempts to incorporate the Grant Wiggins approach by changes in teacher behavior, student assignments, student tests, and class evaluations.



BLACK, GORDON LEON

Philosophy Department, Santa Rosa Junior College

TUES 10:30; STEV 3049

Emotion and Critical Thinking *GEN, TACTIC/STRAT, LANG, INF LOGIC*

Objective discussion of emotion in language is enabled by a simple technique, assigning tags of “approval” or “disapproval” — thumbs up, thumbs down. Student exercises will be displayed and discussed, demonstrating the method, which is applicable at any grade level, and can clearly describe simple or complex positions and interpersonal disputes.

The late Charles L. Stevenson was doing third wave critical thinking research fifty years ago. His method for objective description of emotion in ethical reasoning enables clarity in an orderly discussion of facts and values.

BLATZ, CHARLES V.

Professor, Philosophy Department, University of Toledo

WED 8:45; STEV 2049

Can There Be A Comprehensive Theory of Critical Thinking?: Relating Universal and Particular Elements of Critical Thought

ADV, PHIL, MUL-CULT, INTER-DISC

Richard Paul has urged that critical thinking research should enter a third phase aimed at “a comprehensive theory of . . . critical thinking” with “a clear set intellectual standards.” This theory will have to separate the psychology of critical thought and the rules, processes, and standards according to which such thought is preferable to uncritical thought. According to Paul, some of these processes and standards are universal and some are context-bound. The desired understanding of critical thinking will have to include both these universals and these particulars. But the question remains just what such “universals” might be and how they are related to the “particulars” of good thought in context. This session will consist of a discussion in which I explore how processes and standards of critical thought might be both very general (or universal), and particular to varying contexts. For purposes of discussion I will sketch a suggestion of: 1) an understanding of the sort of comprehensive theory of critical thinking which Paul might have in mind; 2) how universals and particulars of critical thinking might be related through different levels and types of the justification of critical thinking standards; 3) how universals and particulars of critical thought might be related psychologically; 4) a partial picture of some of the instructional implications of such a comprehensive view of critical thinking; and finally, 5) what are the appropriate elements of a college level course designed to cultivate and nurture critical thinkers. (I will make available some copies of the paper on which this discussion is based, the overheads from the discussion, and the syllabus for my college-level critical thinking course.)

BOHANNON, RON

Teacher, Heritage Center

SUN 3:15; STEV 3030

Dialectic Angst: Curriculum and the Classroom

ADV, MID/HIGH, PHIL, SOC STUD, H CON, TACTIC STRAT

If you are struggling, you are in touch. So much of the energy, anxiety, and ideas of the younger generation are manifest in its outlaws. The children who get on your nerves provide the potent moment; learn from it.

Kids, generally, are receptive to such Socratic style discussion and dialogue. Kids will struggle to read and understand texts they believe essential to their growth and development. Thus dialectic angst urges them toward class participation.

The central key is to recognize the inherent dignity of individual diamonic or the spiritual dimension. Dialectic angst gets everyone learning. Dialectic inquiry, trust, respect and relevant issues foster a community of learning.

BOHANNON, RON

Teacher, Heritage Center

MON 3:15; STEV 3030

Collective Individualism: In Christ and Socrates

ADV, MID/HIGH, PHIL, SOC STUD, H CON, TACTIC STRAT

Vaclav Havel, in *The Journal of Democracy* (1995) said Westerners are blind to phenomenal aspects, he calls, "The Forgotten Dimension" of the democratic heritage and that the hope of peace in a culturally diverse world is in jeopardy.

Classically, Alexis de Tocqueville called Democracy in America (1776) a "great experiment." The hope of communal, world peace is typified by American's love of freedom; it will not work without critical ethics.

The ontologic principles in Christ and Socrates provide parallel insights for the perennial problem of the individual/community polemic. Both Socratic/Christian paradigms require submission to higher standards of super personal ethics.

BOHANNON, RON

Teacher, Heritage Center

TUES 10:30; STEV 3030

The Dialectic/Pragmatic Paradox

ADV, MID/HIGH, PHIL, SOC STUD, H CON, TACTIC STRAT

Controversy in modern philosophy argues the merits of two apparently polemic philosophical perspectives—dialectic and pragmatic—one in favor of action and the other in favor of reflection (Rorty; Habermas). This unhealthy rift split philosophy into compartmental thinking degenerated classic criticism. Pragmatism (James; Dewey; Pierce) dispensed with thinking beyond pragmatic prejudice.

Dialectic thinking, in the popular spirit of the times was considered obscure, inconvenient (Veblen).

Paradoxically, in Socrates, pragmatism is the action component to dialectic, moral inquiry and the classic basis of Western enlightenment (Robinson; Vlastos).

BRENNER, DOUG

Associate Professor, Speech Communication, University of South Dakota

SUN 1:30; STEV 3046

On Dipping the Toes into the Pool of Experience: Lessons from/in Teaching Critical Thinking for the First Time

BEG, COLL, TACTIC STRAT, INTER DISC

This session seeks to share practical teaching tips and strategies gained from a semester of teaching an honors seminar in critical thinking for undergraduate students. Items discussed will range from working with writing assignments and portfolios, to using team/peer projects and video tapes. It primarily aims to help beginners and others understand ways of working with Richard Paul's approach, that is, with the elements, standards, traits and abilities involved in critical thinking. A hands-on (or, toe-dipping) approach will be emphasized by drawing from the pool of experience—both from the point of view of the presenter and those who attend the program. Exercises and handouts will be used to reinforce an understanding of critical thinking and approaches to engaging students in the process of critical thinking.

BROWN, LEE

Professor, Philosophy Department, Howard University

SUN 10:30; STEV 3036

Using Critical Thinking as a Reliable Vehicle for Promoting Intellectual Excellence in Students with Educationally Disadvantaged Backgrounds and in Students at Risk

GEN, TACTIC/STRAT, INTER DISC; MUL-CULT

This interactive workshop provides materials, methods, and strategies for teaching critical thinking and critical writing to students with educationally disadvantaged backgrounds. By "educational disadvantaged" backgrounds, I refer to backgrounds that have not included the sorts of sustained educational experiences that foster a functional understanding of logic and a functional appreciation of approaches, methods, skills, strategies, or tools that are essential for competency at critical thinking and critical writing. I propose teaching materials, methods, strategies, and techniques that are effective for motivating learning and for instilling critical thinking skills and critical writing skills in educationally disadvantaged students and students at risk. The workshop should be fruitful for teachers of high school and college, and for teachers who work in multi-cultural and multi-ethnic environments.

BRUMM, GORDON
Former Philosophy Instructor

MON 3:15; STEV 2006

Reasoning, Its Low Estate in American Life, and How Its Friends May Help ADULT, MEDIA, INF LOGIC, POL, H CON

My concern is reasoning about practical questions, in particular among citizens in a democracy. My lines of argument are: 1) Reasoning is a (loosely) structured process (giving arguments, identifying issues, etc.). Adequate reasoning is almost totally absent from American social/political life; indeed, lack of reasoning is society-wide and self-reinforcing. 2) We should think of ourselves primarily as citizens or human beings, not professionals. To promote reason, therefore, we should not only think critically about the goals and methods of our professions but also work in society at large; promotion of reasoning is an appropriate goal of community organizing.

BRYANT, SALLY
Degree Completion Program, Patten College

WED 10:30; STEV 3026

Critical Theory and Hermeneutics: The Role of Language
 COLL, ADV, BUS/ECON, H CON

This session will use interpretative analysis based in critical hermeneutics to explore the role of language. We will explore the means by which language, or dialogue, allows us to come to an understanding and how our language reveals our underlying ideology. The works of Gadamer, Habermas, Heidegger, Ricoeur, and Bellah will provide the theoretical framework to explore language. Using this framework, we will examine a series of texts for underlying assumptions, key concepts, belief systems, and implications. The models presented will allow us to appropriate the power of language and the text in such a way that we can gain a new understanding of the purposes and assumptions inherent in our language, whether we work in a classroom or an office.

BRYANT, JOHN H. TUES 3:15; NICH 204

Critical Thought Frames a Value-Rich Education
 HIGH, COLL, TACTIC/STRAT, STAFF DEV

Human intelligence as discovered provides a rational ground for critical thought expressed as moral and ethical inquiry in education. Applying principles of epistemology to educational pedagogy yields a method of value analysis free of religious specification. Conscious moral responsibility follows easily for a person so educated. Making goodness an expression of what it means to be human and how humans develop; making ethics and morality intellectual matters permit a correctability unavailable by any other method of discovery. Critical thinking applied to ethics and morals, education, training, happiness, and finally to literary examples from Benjamin Franklin and Shakespeare conclude the essay.

BURRITT, DAN TUES 10:30; STEV 3036
Teacher/Co-director C.A.R.E., Children at Risk in Education

Using Reciprocity with Learning Disabled Students in the Elementary Grades - A Step Towards Becoming a Critical Thinker
 K-12, TACTIC/STRAT, LANG, MATH

Some students only attempt to solve problems or tasks that appear cognitively safe or familiar and evade problems/tasks that appear difficult. The use of Reciprocity (the mutual exchange of information) allows students to recognize their power in thinking critically. Students can recognize that inquiry and developing strategies will aid learning. Students can recognize that what is not known can aid in successful and thoughtful solutions. It is ok and appropriate not to arrive at an immediate solution. This particular presentation shares the experiences of using critical thinking practices with students in a RST program.

CAIRNS, MARILYN A. SUN 1:30; NICH 204
Associate Professor of Cardiopulmonary Science, Northeastern University

Developing Critical Thinking Skills in Clinical Programs
 COLL, HEALTH, TACTIC/STRAT, NURS

Allied health professionals must be able to effectively apply and integrate anatomical and physiological knowledge in their clinical practice. This session will focus on the development of critical thinking across an allied health curriculum. This ongoing curriculum project includes departmental and curricular goals and outcomes, faculty development, instructional re-design, and curricular assessment. To illustrate instructional re-design, teaching strategies and examples from a series of basic and advanced anatomy and physiology courses will be presented. These examples will include model assignments, teaching strategies, and assessment techniques used to develop accurate, precise and logical thinking as well as clear and effective communication. Participants will also have an opportunity to discuss other methods and strategies used to develop effective critical and clinical thinking.

CALELLA, CAROL J.

Principal, Rockaway Township School District

MON 1:30; CAR 10

Knowledge and Application of Brain-Based Learning Theory: Segue to Critical Thinking *GEN, TACTIC/STRAT, STAFF DEV, BEG*

Advancements in scientific technologies have given neuroscience researchers access to extensive new information about the structures and functions of the human brain, and consequently, the relationship to the learning process. This new framework for understanding human learning processes is based on the human evolutionary development of the species and the individual as detailed in the Triune Brain and Proster Theories.

Theory is a fundamental tool for the utilization of knowledge, and it provides a base from which techniques can be developed. Brain-based learning techniques that promote the development of critical thinking include metacognition, spatial memory, patterning, hemispheric lateralization and multiple intelligences.

CAVINA, KRISTAN

Professor, English/ESL Department, University of La Verne

MON 3:15; STEV 3026

Using Discovery Techniques to Build Student Understanding of Writing Concepts *LANG, TACTIC/STRAT, COLL*

Students who have a clear understanding of the logic of language are able to make substantial improvement in their writing. They can gain that understanding when writing instruction is based on principles of critical thinking. Participants in this workshop will have an opportunity to follow the development of student awareness, generated through appropriate discovery materials and strategies, of the language concepts involved in writing. The exercises presented in this workshop enable students to discover both what they need to know about writing and why they need to understand and be able to apply each concept. Discussion will be encouraged throughout the workshop.

CHAMBERLAIN, HARRIET

Principal and Founder of Thinking Possibilities

SUN 10:30; STEV 2065

Thinking For Life *ADULT, H CON, PHIL, PSYCH*

The urgent need for critical thinking transcends all boundaries of thought and action. Developing quality life that nurtures survival, promotes humanistic endeavors and engenders life with dignity will depend largely on individuals who understand and willingly apply "strong" critical thinking to personal, community, national and global issues.

Session examines recent research in brain functions and how they support and/or hinder critical thinking. We will focus on: sharpening personal awareness of both tendencies; weakening obstacles while strengthening support for critical thinking; applying critical thinking to improve quality of life (workbook provided).



CLAYTON, PHILIP

Philosophy Department, Sonoma State University

SUN 1:30; STEV 1002

RICHARD PAUL

Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Hot Topics Series: Religion and Critical Thinking *GEN*

This session is one of the Hot Topics series and will feature Richard Paul and Phil Clayton discussing the question, "Is critical thinking incompatible with religious belief?" See page 5 for further details.

CLAYTON, PHILIP

Philosophy Department, Sonoma State University

MON 1:30; STEV 1002

RICHARD PAUL

Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Hot Topics Series: Philosophy and Critical Thinking *GEN*

This session is one of the Hot Topics series and will feature Richard Paul and Phil Clayton discussing the question, "Does critical thinking vary according to the philosophy of the thinker?" See page 5 for further details.

COLLISON, JUDITH

Assistant Professor, Critical & Creative Thinking Program, University of Massachusetts, Boston

SUN 10:30; STEV 3008

Mathematics, Science and Technology Education in the Northern Province of South Africa *GEN, TACTIC/STRAT, MUL-CULT, MATH*

Reforming education is a central goal of the Mandela government. One of the most insidious results of many years of apartheid in South Africa is the state of education—especially math, science and technology education—for black South Africans. The Bantu Educational Act virtually forbade the teaching of math and science to blacks. As a consequence, these areas were excluded at all levels of the education system (including teachers colleges) in black provinces. On the positive side, the reforms present an exciting opportunity for updating mathematics, science and technology learning for all teachers and students without making the mistakes that characterized teaching in these areas for many years in the U.S. The new Ministries of education in the various provinces are looking for ways of "leap-frogging" over the mistakes of the west to the best available practice. In the course of a recent trip to the Northern Province of South Africa I ran some professional development workshops for teachers and curriculum directors of the area. The focus of the workshops was the teaching of critical and creative thinking skills and using collaborative group work in the context of learning and teaching mathematical problem solving. The presentation will be accompanied by video and slides.

COLLISON, JUDITH

TUES 1:30; STEV 3049

Assistant Professor, Critical & Creative Thinking Program, University of Massachusetts, Boston

Assessing Science Curriculum Materials in Light of the AAAS Benchmarks and the NRC National Science Education Standards

GEN, ASSES, SCIENCE

Critical thinking figures prominently in science education reform. The major documents articulating the need for scientific literacy, including AAAS' Science for all Americans, Benchmarks for Scientific Literacy and the NRC's National Science Education Standards, all place a strong emphasis on understanding scientific concepts, developing skills of inquiry and problem solving, using project-based approaches, fostering collaboration among students, and making connections within science, as well as between the disciplines. Many new textbooks, curriculum modules, and a variety of materials claim to help teachers accomplish the goals of 'scientific literacy'. This presentation explores ways that curriculum materials and claims made by their developers can be evaluated in light of these reform documents.

CONN, JENNIE S.

TUES 10:30; STEV 3038

Associate Professor Business Law/Ethics, Clark Atlanta University

The Necessity of Moral Critique in Education From the Viewpoint of John Dewey and Paulo Friere and It's Relation to the Education of the African American Male *GEN, PHIL, MUL-CULT*

A large part of the continuation of a society centers around moral laded education. For good or evil, education as we know it, has always and continues to consist largely of facts to be memorized, presented in a way that is designed to perpetuate the status quo. Education thus staid is unrelated to the lives of many of the socio-economic classes that make up a student population from kindergarten. One class that is particularly isolated with respect to the moral imperatives perpetuated by education is the African American male. It may not be possible to shift/adjust the morality code of education to relate to the lives and values of the African American male whose environment is shaped by low income. However, the introduction of critical thinking into the classroom beginning with kindergarten might allow them to develop the ability to create their own bridge between their realities and education. ".....let me control their music, and I won't care who makes the laws..."

COODLEY, LAUREN

TUES 3:15; STEV 3028

Professor, Social Sciences Department, Napa Valley College

CLARENCE KENT

Instructor, Social Sciences Department, Napa Valley College

ROBERT WRIGHT

Professor, Fine and Performing Arts, Napa Valley College

Teaching Upton Sinclair: A Case Study in Critical Thinking

COLL, GEN, INTER DISC, POL, ARTS, PHIL

We have been working on Upton Sinclair, using a multi-disciplinary perspective (literature, political science, music, history, economics). As community college instructors, we find that the study of Sinclair offers not only a cross-disciplinary challenge, but the challenge of thinking critically about biography, popular fiction, art as propaganda, and the use of advertising in political campaigns. Using slides, music, and video, we will pose several assignments in critical thinking to an audience as ways of exploring the value of using such a multi-talented author/activist as a stimulus to critical thinking.

COOPER, F. BRYAN

WED 10:30; STEV 3077

Decision Point Software

Improving on Benjamin Franklin: Can One Use Critical Thinking to Make Better Decisions? *COLL, ADULT, BUS/ECON, TECH*

Benjamin Franklin proposed that one use a pad of paper and put a line down the middle. Put a Plus on one side and Minus on the other. Then write down as many things as necessary on each side of the paper that you believe about the situation. That's all you need to do to make a decision.

Does this approach still work? A Decision Model workshop is held to discuss whether we can improve Ben's 250 year old model. The workshop will use Critical Thinking concepts to critique and improve upon a Decision model, and possibly create an alternative decision making approach.

Decision Making is a skill that some people learn well. What can we learn about Decisions? A computer program is shown during the workshop, which is designed to help one decide about buying and selling a home. The workshop will be used to critique the software and its implementation of the decision model using Critical Thinking elements of reasoning, intellectual standards, and its functional usefulness. The goal of the software is to help one "think like an experienced homeowner".

COSTA, DARRELL E.

TUES 3:15; CAR 10

Professor of General Education, DeVry Institute of Technology, Pomona

Diagnosing the "D.ogue Virus": Self-Therapy in a World of Demagoguery and Language Disease (from the Declaration of Independence to the Unabomber's Manifesto!) *COLL, LANG, POL, INF LOGIC*

Demagoguery as it is carried by the "D.ogue Virus" (the infectious leadership agent of: populist appeals; exaggeration; loaded terms; truisms, tautologies, testimonials; illogic; name calling and generalities) will be examined from the disease's origins to its mutant forms in the world of politics, culture and everyday language. Critical thinking therapy will be applied to inoculate "followers" against the epidemic of language disease. Discussion of the 'Best and Brightest' propaganda will include our Founding Fathers, Clinton, Gingrich, Dole, Buchanan, Jackson, Farrakhan, Kahane, to viral spreads in Limbaugh, The Nation, Pacifica and National Public Radio, and the Unabomber Manifesto. D.ogue virus detectors and inoculation kits will be provided.

COTTON, WEBSTER E.

MON 3:15; ART 108

Professor of Educational Foundations, California State University, Los Angeles

Thinking and Being Human: The Radical Perspective of Hannah Arendt *GEN, PHIL, POL, PSYCH*

In 1961, Hannah Arendt, a distinguished political philosopher, covered the trial of Adolph Eichman in Jerusalem for The New Yorker. Her account of the trial was later published as *Eichman in Jerusalem: A Report on the Banality of Evil* (1961). A central thesis in the book is that attempts to picture Eichman in purely "moralistic" terms is to miss something much more fundamental - his sheer thoughtlessness about the choices he was making, the acts he was committing.

In her last book, *The Life of the Mind* (1971), she engages in a profound analysis of the interdependence of thinking, willing, and judging (which is at the heart of the humanizing process). Her perspective is challenging us to re-think the meaning/significance of thinking in the unfolding of the human project. The session, which will be in seminar format, will explore the issues raised by Ms. Arendt.

DAMER, T. EDWARD

SUN 10:30; STEV 3046

Professor/Author, Department of Philosophy, Emory and Henry College

How to Distinguish "Good" Arguments from "Bad" Ones *MID/HIGH, COLL, BEG, INF LOGIC*

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. Special attention will be given to moral arguments. Sample arguments that deal with current issues will be evaluated as a part of the workshop. Ideally, this workshop would be a good background for the other workshop offered by the leader on "How to Resolve Disagreements on Controversial Issues."

DAMER, T. EDWARD

MON 10:30; STEV 3008

Professor/Author, Department of Philosophy, Emory and Henry College

How to Resolve Disagreements on Controversial Issues

BEG, COLL, INF LOGIC, H CON

This session will focus upon the rules of intellectual behavior that critical thinkers would be expected to follow in a serious discussion of a controversial issue. These rules clearly take on an ethical dimension, since fairness demands that all parties to a dispute be committed to the same kind of intellectual behavior which works—which actually resolves conflicts. A handout of a "Code of Conduct" from the workshop leader's *Attacking Faulty Reasoning* will be distributed to workshop participants. Part of the workshop may be devoted to demonstrating the effectiveness of the principles by attempting to "resolve" a political or moral conflict found between workshop participants. A good but not necessary background for this workshop would be the leader's workshop on "How to Distinguish "Good" Arguments from "Bad" Ones."

DAMER, T. EDWARD

TUES 10:30; STEV 1002

Professor/Author, Department of Philosophy, Emory and Henry College

WILLIAM A. DORMAN

Professor of Government, C.S.U., Sacramento

Hot Topics Series: Politics and Critical Thinking *GEN*

This session is one of the Hot Topics series and will feature Bill Dorman and Edward Damer discussing the question "Does critical thinking presuppose a political standpoint?" See page 5 for further details

DAVIDSON, BRUCE W.

MON 1:30; STEV 2065

Assistant Professor, Department of Social Welfare, Hokusei Gakuen University

Assessing Japanese Student Progress in Critical Thinking with the Ennis-Weir Critical Thinking Essay Test *COLL, ASSES, INTER DISC*

This study made use of the Ennis-Weir Critical Thinking Essay Test to compare two groups of Japanese students after a year of intensive academic English instruction. One received only content-based intensive English instruction, and the other received training in critical thinking. The results manifested a clear gap between the two groups, though both manifested general weaknesses in critical thinking ability. The authors conclude that critical thinking skills can indeed be taught as part of academic English language instruction and also that content-based English instruction alone may not do much toward developing critical thinking skills.

DAVIDSON, BRUCE W.

WED 8:45; NICH 173

Assistant Professor, Department of Social Welfare, Hokusei Gakuen University

Does Religious Faith Mean Uncritical Thinking?: Exploration of a False Dilemma PHIL, GEN

Many conclude that since religious ideas and practices abound that are basically irrational, religion is incompatible with critical thinking. Some religions, such as Zen Buddhism and neo-orthodox Christianity, define belief in irrational terms, and other religious groups have relied on irrational means of persuasion, such as brainwashing or military force. However, if faith is defined not as belief in the unreasonable but as belief in the unseen, then religious belief may not go against the grain of critical thinking. In fact, critical thinkers have existed in the religious world, a good example being the American theologian Jonathan Edwards.

DE OLIVEIRA, MAURICIA

MON 3:15; NICH 304

Professor, Center for Educational Research, University of Lisbon

CELINA T. VIEIRA

Center for Educational Research, University of Lisbon

Critical Thinking in Science Education: Proposal of a Work Instrument to Develop Activities that Infuse Critical Thinking into Science Contents GEN, BEG, SCIENCE, ENV

Assuming that the promotion of critical thinking is indispensable to science education and to citizenship, and that the computer requires people to have the ability to deal with the information resulting from its utilization, the purpose of this research was to verify whether courseware development based on Ennis' taxonomy promotes students critical thinking skills. A courseware named "Human Reproduction" was produced.

We adopted a quasi-experimental design with a sample formed from 92 sixth grades. To measure the critical thinking level we used the "Cornell Critical Thinking Test, Level X". Results indicate a clear enhancing of students critical thinking skills.

DE OLIVEIRA, MAURICIA

TUES 10:30; STEV 2050

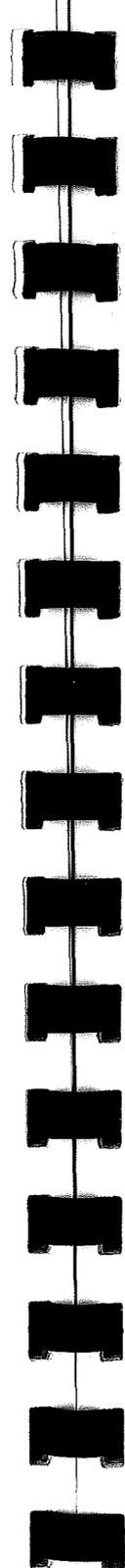
Professor, Center for Educational Research, University of Lisbon

RUI M. VIEIRA

Center for Educational Research, University of Lisbon

The Courseware Development to Enhancing Critical Thinking Skills ELEM/MID, BEG, COMP AID, SCIENCE, TECH, HEALTH

Assuming that the promotion of critical thinking is indispensable to science education and to life in a democratic society, and that the computer requires people to have the ability to deal with the information resulting from its utilization, we conceived a study research. The purpose was to verify whether courseware development based on Ennis' (1985a, 1985b, 1987)



taxonomy, promotes student's critical thinking skills. A courseware named "Human Reproduction" was produced.

We adopted the quasi-experimental model nonrandomized control-group pretest-posttest design. The study sample was formed from 92 students (aged 10-14 years), of four sixth grade classes. To measure the level and critical thinking aspects of these students we used the "Cornell Critical Thinking Test, Level X" (Ennis and Millman, 1985).

For the experimental group, the results indicated a clear enhancing of students' critical thinking skills. For the control group (n=45) statistically significant gains were not revealed.

DIETER, LYNN P.

WED 10:30; ART 108

English Department, Maine Township High School East

A Model to Teach Critical Thinking and Ethical Decision Making

GEN, TACTIC/STRAT, LANG, INTER DISC

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 thinking model, its application to value-laden issues, and provide time for the participants to apply the model to their own disciplines and sample lessons.

DITZHAZY, HELEN E.R.

TUES 3:15; NICH 304

Professor of Educational Leadership, Eastern Michigan University

Charter Schools a 90's Phenomenon: Impetus for School Reform, Passing Fancy, or Right Wing Attempt to Get Aid for Private and Religious Schools H CON, PHIL, POL, MUL-CULT, GEN

The 90's: decade of the Charter school movement. This worldwide activity, involving many countries, has also swept across the nation. Laws and policies which will impact education for the foreseeable future are currently being formulated and implemented. After a presentation of background information and a critical analysis of the status of the movement in Michigan and Arizona, participants will be involved in an activity of examining their own justified, true beliefs about the issue. Finally, there will be a discussion about why the time for involvement in policy making in their home state may be nigh.

DITZHAZY, HELEN E.R.

WED 10:30; STEV 3028

Professor of Educational Leadership, Eastern Michigan University

Transcendent Thinking about the Conflicts: The Question Is Not Whose, but What, to Include the Religious Right GEN, H CON, PHIL, POL

Sporadically articles appear in magazine or journals about concerns, antics, and tactics of the Religious Right. Most center on conflicting values about evolution vs. creation, self-esteem, critical thinking, problem-solving, safe-sex or multi-culturalism. At the next level are public interest vs private right and intellectual freedom vs specific group values. Finally, school control becomes an issue. Should it be national/professional or local/parental. This session will examine core values we can agree upon (here and now) to use as a basis for transcending some of the conflict.

DOLAN, DAWN

SUN 3:15; NICH 204

School of Education, Sonoma State University

JOEL RUDINOW

Lecturer, Philosophy Department, Sonoma State University

Moving from Textbook-Centered Learning to Student-Centered Learning COLL, TACTIC/STRAT, ASSES, LANG

We will be sharing our teacher action research experiences in a college level introductory critical thinking class. Our focus was on targeting an area of student performance which we felt needed improvement, determining specific criteria by which to assess this performance, choosing the learning strategies to implement, and assessing the effectiveness of this process. We were most interested in promoting the critical thinking ability of intellectual autonomy, especially as it relates to self-assessment, and the intellectual standards of clarity, coherence, accuracy and thoroughness. We chose to make a change in only one unit of a class syllabus which has been in use and evolving over the past several years. A how-to section will be included for those interested in trying something similar in their own classrooms.

DONNELL, JEFFREY

TUES 1:30; NICH 204

Training Specialist, Mechanical Engineering Department, Georgia Institute of Technology

KRISTEN KANN

Program Specialist, Chemical Engineering Department, Georgia Institute of Technology

From Lab to Laptop: Critical Thinking, Scientific Method and Technical Writing COLL, TACTIC/STRAT, MATH/SCI, TECH

This session considers writing instruction for undergraduate and graduate-level engineering students, arguing that an in-house writing program can integrate technical content with writing and critical thinking. We review the status quo in American colleges and universities, whose engineering departments require students to take technical writing through an English department. Such generic instruction cannot build students' thinking skills,

while internal writing programs focused on critical thinking can build such skills, because they link writing with fundamental questions of scientific method. We offer case studies of two such programs at the Georgia Institute of Technology, and we outline a "model" course in Chemical Engineering.

DORMAN, WILLIAM A.

SUN 1:30; STEV 2049

Professor of Government, C.S.U., Sacramento

Do the Media Undermine Democracy? HIGH, COLL, MEDIA, POL

For the teacher of critical thinking, a presidential election year offers an excellent opening to examine the question posed by this presentation, particularly in terms of the effects mass media may have on political reasoning. This session will focus on how the perspective and method of critical thinking can be applied to political communication in general and the media's effects on political debate and thinking during campaigns in particular. Attention will be paid both to news and political advertising.

DOWNES-LOMBARDI, JUDY

TUES 1:30; STEV 2050

Assistant Professor, Department of Education, University of Tampa

Society's Child: A Mini-Workshop in Critical and Creative Thinking GEN, BEG, INTER-DISC, TACTIC/STRAT

What do we mean by critical and creative thinking? Where have we been as a community of thinkers, teachers, and learners? This participatory workshop gives a context and background for many of the ideas presented at the conference, while exploring some of the personal and professional challenges we face as thinkers. Newcomers and beginning practitioners are especially encouraged to attend, as we explore together the rich tapestry of ideas in the critical thinking community, movement—and beyond.

DOYLE, TOM

SUN 1:30; STEV 3030

Teacher, Granada Hills/CSUN Magnet H.S.

"Humanitas" in Los Angeles: Interdisciplinary Instruction as an Emerging Third Wave Reform MID/HIGH, INTER DISC, TACTIC/STRAT, STAFF DEV

For the past eleven years, Los Angeles Unified School District has promoted an interdisciplinary program called "Humanitas." Recognized by the US Department of Education and the Kennedy School of Public Policy at Harvard University, Humanitas has been at the forefront of critical thinking education in LA high schools. After having spent the last six years in Humanitas, I have found that it has met in practice some of the third wave concerns as expressed by Richard Paul. This session seeks to present the Humanitas model as a way of practically addressing third wave concerns.

DOYLE, TOM

Teacher, Granada Hills/CSUN Magnet H.S.

MON 3:15; STEV 3040

Critical Thinking in High School History Courses: Enabling Students to Become Historical Thinkers MID/HIGH, INTER DISC, TACTIC/STRAT, STAFF DEV

This session argues that secondary students can become collegiate-level historical thinkers beyond most educator's expectations by means of simulation, textual analysis and Socratic dialogue. Interweaving all three strategies, students can and have experienced increasing success in critical thinking, and in the process teachers have begun to address in practice some of the third wave concerns as expressed by Richard Paul. This session will begin with the presentation of the theory, followed by an activity and discussion, with a view to begin a discussion between secondary teachers and university educators on how to unify their efforts towards higher quality critical thinking instruction.

DRAPER, GARY

Artistic Director, Performing Arts Workshop

TUES 10:30; NICH 173

Learning to Teach Young Children (K-8) the Creative Process K-12, ARTS

Through the performing arts, teachers explore the creative process and ways to use elements of critical thinking when teaching children. Activities include participating in group problem-solving exercises, evaluating results and experiencing model lesson plans taught by the instructor, Gary Draper (Artistic Director, Performing Arts Workshop).

The workshop will demonstrate how to focus student energy, excite the imagination and free the body while linking fantasy to creative problem-solving. The workshop will also include a Performing Arts Workshop manual, *Moving Beyond the Desk* and handout excerpts from Gloria Unti's text, *On Stage in the Classroom: Performance Art from K-8*.

DRUMIN, WILLIAM

Associate Professor, Philosophy Department, Kings College

WED 10:30; NICH 173

Using Critical Thinking to Combat Deceptive Practices in Mail Offerings, Promotions, and Advertisements INF LOGIC, MEDIA, LANG ART, PSYCH

Deceptive mail ads and offerings are proliferating like a plague on our society. The presentation will employ relevant Critical Thinking Criteria to expose their manipulative methodologies. A number of actual scam offerings will be examined in light especially of informal fallacies grounded on the irrelevant appeal to emotion. The aim is twofold: (1) to illustrate and illuminate the criteria; (2) to counteract the influence of the deceptive techniques upon the judgment. As time permits, we will also examine the social and ethical implications of these widespread practices for our society, such as cheapening the currency of language and breeding public cynicism and disillusion.

ELDER, LINDA

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

SUN 10:30; CAR 68

Developing the Emotional Lives of Young Children ELEM, BEG, TACTIC/STRAT

To develop the rational capacities of young children we must have a clear understanding of their natural affective tendencies. In this session, Dr. Elder will focus on the role of both feelings and desires in the mind of the child, and how understanding that role is crucial to helping children develop into rational adults. This session, designed for both teachers and parents of young children, will provide useful strategies for helping children become intellectually disciplined, compassionate individuals.

ELDER, LINDA

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

SUN 3:15; STEV 1002

YEHUDI O. WEBSTER

Professor of Pan-African Studies, California State University, Los Angeles

Hot Topics Series: Critical Thinking and Romantic Relationships GEN

This session is one of the Hot Topics series and will feature Linda Elder and Yehudi Webster discussing the question "Should critical thinking be used in romantic relationships?" See page 5 for further details.

ELDER, LINDA

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

MON 1:30; CAR 68

Using the Elements and the Standards in the K-6 Classroom

ELEM, BEG, TACTIC/STRAT

For young children to become disciplined thinkers, they must learn how to take their thinking apart, to figure out the quality of their thinking, to find the flaws in their thinking, and to improve their thinking using intellectual standards. Therefore, it is important for young children to begin to learn and to use critical thinking vocabulary at an early age. In this engaging session, Dr. Elder will focus on how to bring genuine critical thinking into the elementary classroom and to keep it alive on a daily basis.

ELDER, LINDA

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

MON 3:15; STEV 1002

DIANNE ROMAIN

Professor of Philosophy, Sonoma State University

Hot Topics Series: Passion vs. Reason GEN

This session is one of the Hot Topics series and will feature Linda Elder and Dianne Romaine discussing the question "Is there a role for passion in reason?" See page 5 for further details.

ELDER, LINDA

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

TUES 1:30; CAR 68

The Role of Non Egocentric Thinking in Developing a Rational Mind GEN

Developing a highly rational mind presupposes understanding the sometimes unlimited power of egocentric thinking. While learning the skills involved in good reasoning is crucial to developing as a critical thinker, these skills may be used for good or for ill. The real challenge of critical thinking development lies in overcoming our natural tendencies toward egocentric thinking. In this session, Dr. Elder will focus on the distinction between egocentric and non egocentric thinking, and will provide strategies for diminishing the power of egocentric thinking in pursuit of the highest forms of rationality.

ELDER, LINDA

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

WED 8:45; CAR 68

The Emotional Lives of Students: Understanding the Link Between Students' Desires and Feelings, and Their Classroom Experiences GEN

To effectively teach students we must understand the role that their feelings and desires play in their classroom experiences. Students, like all humans, will not learn that which they are unmotivated to learn, that which they are uninterested in. And they are motivated toward ideas which relate directly to something important in their lives. Therefore, if we are to have a positive impact on the lives of our students, we must find ways to connect academic modes of thinking to the personal lives of students. In this interactive session, Dr. Elder will help participants develop methods for linking their content to student values.

ENNIS, ROBERT H.

Professor Emeritus, University of Illinois

SUN 10:30; ART 108

Is Critical Thinking Culturally Biased? ADV, COLL, INF LOGIC, PHIL

Ennis examines several suggestions that critical thinking is culturally biased, and also reports the results of a systematic examination (looking for cultural bias) of one conception of critical thinking. He tentatively concludes that the constitutive features of critical thinking are not culturally biased, though there could be bias in some auxiliary features for some groups. He suggests that critical thinking, in contrast to being biased against the disadvantaged, is empowering for them. He also urges that, in dealing with the bias charge, we look at the specifics of the concern and the situation in which it arises, and invite elaboration and exploration of the charge.

FAWKES, DON

Assistant Professor of Philosophy, Fayetteville State University

TUES 3:15; STEV 3026

Applying Critical Thinking to Administrative Practice GEN, INTER DISC, BUS/ECON, H CON

This session considers applications of skills, elements, and standards of critical thinking to administrative practice. Elements, skills, and standards are applied to concrete circumstances. Though educational settings are primarily considered, interpretations generally suitable for a range of organizations are sought. Participants will role-play and discuss concepts and applications. VCR and overhead slides will be used. The session is suitable for advanced participants, but it is also designed to be easily accessible for beginners.

FEARE, JOHN R.

Fellow, Center For Critical Thinking and Moral Critique

SUN 3:15; STEV 3049

Critical Thinking Within a Theological Dimension GEN, H CON, TACTIC/STRAT

The argument will be presented that human life exists for the noble purpose of "helping out the birth throes of creation and the continuation of life... furthering the life pulse of the universe itself" (E. Becker). This purpose, the ultimate referent against which all human behavior is evaluated, originates in the creative spirit (God, life force . . .), the source of all life and meaning. Implementation of this 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., by critical thinking.

FEARE, JOHN R.

Fellow, Center For Critical Thinking and Moral Critique

MON 1:30; STEV 3049

Beyond Speechmaking and the Marketplace of Ideas: A Radical Transformation in Communication GEN, H CON, TACTIC/STRAT

Much communication, public and private, amounts to little more than people making speeches at each other. In whatever setting (e.g., classrooms, offices, media) and in whatever form (meetings, forums, hearings) participants take turns proclaiming what they think and the encounter ends without any meeting of hearts and minds.

Based on the principles and practices of critical thinking, a method will be demonstrated which substantially improves the quality of discussions of all kinds, thus enhancing the pursuit of truth, the fundamental purpose of critical thinking. The argument will be presented also that the presumption that individuals can formulate informed opinions and judgements and make intelligent decisions after assessing information, claims, and ideas in the "marketplace of ideas" is faulty.

FELTER, DOUGLAS

SUN 10:30; STEV 3077

District Supervisor of English, Union County Regional High School #1

Script Doctors: Training Students to Use the Cinematic Image in Order to Foster Critical Thinking MID/HIGH, LANG, MEDIA, ARTS

This session explores methods for employing higher-order thinking skills in the English classroom (middle school to college) through the use of cinema studies. Using a variety of clips from film texts, I will discuss how the cinematic image can be a conduit for exploration and heightened understanding of many literary texts if the lesson is structured on a foundation of critical thinking. As a culminating activity, participants will construct storyboards of a literary scene to that effect. Though the presentation focuses on the teaching of Shakespeare, I will demonstrate how this approach is easily applicable to diverse lessons in the field of Language Arts as well as other disciplines.

FONTEYN, MARSHA E.

MON 1:30; CAR 20

Assistant Professor, School of Nursing, University of San Francisco

Thinking in Clinical Practice COLL, ADV, HEALTH, NURS

Think aloud technique was used to identify and describe the cognitive skills experienced nurses used while reasoning about clinical dilemmas in their area of expertise. Content analysis of the verbal data was facilitated by the use of the computer program NUDIST (Non-Numerical Unstructured Data: Indexing, Searching, and Theorizing). Preliminary results indicate that experienced nurses' thinking in practice is contextually-based, and predominated by such cognitive skills as: recognizing a pattern, searching, questioning, relating, hypothesizing, prioritizing, stating a proposition, evaluating, and concluding. Findings suggest that these cognitive skills are common across subjects and areas of practice.

FONTEYN, MARSHA E.

WED 10:30; STEV 2052

Assistant Professor, University of San Francisco

Strategies for Improving Students' Critical Thinking Skills

COLL, ASSES, HEALTH, TACTIC/STRAT

This session will describe teaching strategies that are designed to improve students' critical thinking skills. Teaching strategies that will be discussed focus on improving students' thinking in the following areas: metacognition, consideration of context, ability to recognize patterns and identify relationships, and reflection. Teaching strategies include: critical thinking exercises, critical analysis of literature, analysis and critique of literature, reflective writing, mind mapping, and construction of multiple-choice questions the require rationale for the answer chosen providing a rationale for solutions to problems.

FREEMAN, LYN

TUES 1:30; NICH 173

Owner, Mind Matters

Critical Thinking and Health Care Management: The Incorporation of Intellectual Strategies in a Research Based Intervention for Adult Asthmatics COLL, HEALTH, ASSES, TACTIC/STRAT, PSYCH

Health education alone is inadequate to bring about effective health care management. Systematic evaluation of information, generation of health care alternatives, problem solving, perceptual shifts in health attributions, decision making and self-efficacious action must take place for health to improve. These dimensions of thinking must be evaluated within a context of specific standards.

Critical thinking strategies were used in two, six week intervention programs intended to improve breathing patterns and reduce asthma symptoms and attacks in adult asthmatics. Outcomes from these studies are presented and suggestions for the use of critical thinking as intervention with chronic illness is discussed.

GERBIC, PHILIPPA

SUN 3:15; STEV 3026

Program Leader BBus, Faculty of Commerce, Auckland Institute of Technology

JENNY BYGRAVE

Head of Programs: Commerce Faculty, Auckland Institute of Technology

Critical Thinking Graduates: A Curriculum Development Case Study in Business BUS/ECON, INTER DISC, COLL, TACTIC/STRAT

One of the greatest challenges for teachers is that of developing and enacting a curriculum which encourages critical thinking in students. This presentation seeks to illustrate and describe our approach in New Zealand in respect of a critical thinking curriculum for a 4 year degree in business - its aims and philosophy, the thinking behind it and how it is enacted.

We address selected program design issues at a broad level, particularly the use of graduate profiles/outcomes and their achievement through teaching learning and assessment strategies. Detail is added through a series of mini-case studies where we illustrate a sequenced program of interdisciplinary study, capability development in critical thinking in the context of domains or program specializations and co-operative education (theory in practice in the workplace).

Our practice in the program will be discussed in the light of current critical thinking issues including general and contextual critical thinking, developing a metacognitive approach and encouraging critical thinking dispositions.

GILBERT, CHRISTOPHER

Associate Professor, Bristol Community College

MON 1:30; STEV 3028

The Poem As Identity: Act, and Act. . . ARTS, PHIL, MUL-CULT, GEN

This presentation provides tools for critically examining contemporary poems, especially poems written out of the African American oral tradition and/or the jazz idiom. Poetry is a largely ignored art form. The common complaint is that contemporary literature—not to mention poetry—is irrelevant and obscure. The critical thinking movement argues that students need tools for evaluating arguments, for solving problems, and for evaluating consumer services and everyday situations. But there has been no like minded attempt about critical thinking in the arts. This presentation provides root metaphors for evaluating poems, and it contrasts those metaphors.

The presentation will use recordings of poems by several well known poets (Langston Hughes, Amiri Baraka, Michael Harper, Wanda Coleman, etc.). Musical recording will provide the base for the critique of a few of the pieces.

GILBERT, CHRISTOPHER

Associate Professor, Bristol Community College

TUES 1:30; NICH 304

Writing in the Scaffolding: Acquiring Disciplinary Concepts/Enactments as Reflective Practitioner PSYCH, COLL, HEALTH, ASSES

This presentation's focus is on the results of using critical thinking exercises to help college students refine their understanding of Attention Deficit/Hyperactivity Disorder (AD/HD). Embedded in the exercise is the necessity that students construct disciplinary boundaries as they adopt the persona of "Expert Columnist" giving written advice to a distraught parent. The exercise highlights the decision making, problem solving, and writing employed by different mental health practitioners (psychiatrist, psychologist, etc.); it uncovers the way different disciplines frame problems, make assumptions, consider context and relevance, etc. The exercise involves a dialectical stage procedure using notions from Lev Vygotsky (scaffolding) and Erving Goffman (frame analysis).

GOIN, COLEMAN J.

Teacher, Ganado High School

TUES 10:30; STEV 3026

"They Said It: Using Quotes to Teach Historical Thinking."

SOC STUD, TACTIC/STRAT, H CON, MUL-CULT, GEN

This presentation will demonstrate a strategy for teaching historical thinking by the use of selected quotes. Quotes from different periods of American history will be used in conjunction with cooperative learning and Socratic questioning. The presentation will demonstrate how intellectual standards, traits, and abilities are introduced in the lessons.

GOTTESMAN, LES

Dean of Arts and Sciences, Golden Gate University

MON 1:30; STEV 2001

Hermeneutics: What Is It? Is It Critical? TACTIC/STRAT, PHIL, ADULT, COLL

Hermeneutics tries to answer the question, what does it mean to "understand?" Once an arcane sub-specialty of Biblical studies and philology, hermeneutics in the last 30 years has quietly influenced theories and practices in history, sociology, anthropology, literary studies, science, politics, and even business. For teachers, hermeneutics usefully describes processes of learning. As a prescriptive model, hermeneutics can be used to guide students' encounters with texts and other objects of study, and to orchestrate a critical dialogue which exposes and tests prejudices, ideology, and misunderstanding. Out of these encounters, students come to greater self knowledge and realize possibilities for choice and change. This presentation illustrates hermeneutic concepts and processes with classroom examples and student testimony.

GRIFFIN, MICHAEL A.

Associate Professor of Communication, University of Guam

SUN 1:30; NICH 304

SUN 3:15; NICH 304

Critical Thinking: A Practical Guide (Part 1 & 2) HIGH, COLL, H CON, INF LOGIC

This participatory workshop will offer a systematic guide for conceptualizing problematic situations, based on Dewey's Reflective Thinking Sequence. Lead by the presenter through the guide, the participants will be asked to critically assess a given problem and both generate and evaluate reasonable solutions. The guide emphasizes the notion that a problem needs to be accurately defined if a solution is to be reached that solves the problematic situation. (This is a two-part workshop.)

HAMMERBACHER, GEORGE

Professor of English, King's College

TUES 1:30; STEV 2006

Faculty Development in Thinking Across the Curriculum COLL, STAFF DEV, INTER DISC, TACTIC STRAT

This session will describe a successful, ten-year program of faculty development in Thinking Across the Curriculum. Its philosophy is that critical thinking courses can better achieve their objectives if the entire faculty of an institution is aware of them, committed to continuing their development in all disciplines, and experienced in doing so. The presentation will include a workshop format to involve participants in the kinds of activities used in this program.

HANFORD, GEORGE H.
President Emeritus, The College Board

TUES 3:15; STEV 1002

YEHUDI O. WEBSTER
Professor of Pan-African Studies, California State University, Los Angeles

Hot Topics Series: Bureaucracy and Critical Thinking GEN

This session is one of the Hot Topics series and will feature Yehudi Webster and George Hanford discussing the question "Is critical thinking compatible with bureaucracy?" See page 5 for further details.

HART, THOMAS
Chairman of General Studies, Patten College

TUES 3:15; STEV 2006

Riding the Third Wave To Develop Critical Thinking and Writing Assessment COLL, ASSES, LANG, TACTIC/STRAT, INF LOGIC

This presentation will show how a traditional writing proficiency test—which mainly assess writing skills such as formulating a central controlling idea, organizing paragraphs and sentence writing for producing an impromptu essay—can be revised and developed as a critical thinking assessment both of writing and critical thinking skills for undergraduates. Adapted from the materials and criteria provided by Richard Paul at an in-service workshop, the test is called the Writing And Thinking Test (WATT). Participants examine writing samples that show how well students can read, respond to and evaluate an editorial in order to write the essay. Besides creating an institutional assessment tool, the test may help create more significant awareness of critical thinking among students and faculty.

HATCHER, DONALD L.
Professor, Director-Center for Critical Thinking, Baker University

SUN 3:15; STEV 3036

LUCY PRICE
English Department Chair, Baker University

Some Keys to a Successful Critical Thinking Program COLL, ASSES, INF. LOGIC, PHIL

This discussion will analyze the data gathered from a six-year study comparing a two-semester sequence that integrates critical thinking and composition requirements with stand-alone, one-semester courses. The assessment results should be of interest to anyone designing a critical thinking program. Time, simplicity, and continuity may be the keys to student success.

HATCHER, DONALD L.
Professor, Director-Center for Critical Thinking, Baker University

MON 10:30; CAR 68

What Is the Role of Formal Logic for Critical Thinking?
COLL, ASSES, INF. LOGIC, PHIL

The presentation will examine the importance a basic understanding of formal logic can play in explaining to students the standards of rational criticism used in the typical critical thinking course. In addition, the presentation will include exercises in the application of formal logic in constructing arguments for positions.

HAYES, HAROLD L.
Professor, Psychology Department, Walters State Community College

SUN 10:30; NICH 304

Cross-Cultural Problems Motivate Critical Thinking
GEN, BEG, ENV, TACTIC/STRAT

This workshop will model design techniques in cross cultural exercises that have proven highly motivational and effective for students from the elementary grades through college and penal level education. Teachers will see how such problems are designed and presented on different levels of abstraction in terms of critical thinking standards.

Working in small groups, with assistance from the workshop leader, each exercise will be completed and evaluated by each group. During group reports participants will present their critiques of each exercise. Groups will be encouraged to give examples of approaches that supplement or go beyond the models developed in this workshop.

HAYNES, JARED
Lecturer, English Department, University of California, Davis

SUN 10:30; NICH 204

The Writing Strategies of College Students: Reflections of Cognitive Development COLL, LANG, PSYCH, TACTIC/STRAT

Research has shown that college students move through recognizable stages in their thinking strategies from the time they enter the university to the time they graduate. This session will first present three major studies that help sum up how the research on students' cognitive development has developed: Perry's study in the 1960s on male college students, Belenky and her colleagues' study in the early 1980s on women college students, and Baxter Magolda's study in the late 1980s on a mixed population. The strong similarities and increasing sophistication of these studies will be emphasized. Then participants will be asked for input on what they have observed in their students' writing strategies and attitudes and we will discuss how these attitudes may reflect particular stages in the development of students' thinking abilities. Finally, we will look at teaching strategies that should encourage the improvement of both their thinking and writing.

HEASLIP, PENNY
Instructor, Nursing Department, University College of the Cariboo

MON 10:30; CAR 20

Globalization of Dialogue and Debate: Critical Thinking Through Computer Interest Groups GEN, NURS, COLL

Student learning is no longer limited to a specific geographic location, rather the world is the classroom. As educators, committed to the goal of producing critical thinking nurses, it is imperative that we provide opportunities for students to think critically about current nursing issues related to our course offerings. Computer based interest groups offer the means by

which students can access nurses' views on a global scale. The ability to pose effective questions and develop reasoned judgments is enhanced when dialogue and debate occurs within the context of the global arena. This session addresses what it means to reason effectively as a critical thinking nurse; that is, how to structure and analyze arguments based on the application of intellectual standards. Suggestions are made for teaching strategies and assignments that can be designed to promote student development as critical thinkers through the use of dialogue and debate in global discussion groups.

HEASLIP, PENNY

TUES 10:30; CAR 20

Instructor, Nursing Department, University College of the Cariboo

Microthemes: The Reading, Writing, Thinking Connection

GEN, NURS, COLL, HIGH

The use of microthemes in an introductory professional course can successfully develop a student's ability to reason critically about what to believe or how to act in a practice discipline. This session examines how frequent writing, critical reading of professional literature, self and peer critique enhance the student's ability to develop a reasoned view of practice disciplines. Through the application of the elements of reasoning and critical analysis students come to know the discipline not through a process of socialization and indoctrination but rather as an ethically held stance of reasoned views. The construction of professional values and examination of personal beliefs develop an ethical way of knowing the field which becomes the practitioner's basis of practice.

HEASLIP, PENNY

TUES 1:30; CAR 20

Instructor, Nursing Department, University College of the Cariboo

Classroom Assessment of Critical Thinking Learning Activities *GEN, NURS, COLL, HIGH*

The ability to stimulate the development of critical thinking in student interactions rests on rigorous evaluation of the quality of the assigned learning activity. This session addresses the necessary criteria that classroom learning activities must reflect if they are to promote critical thinking. The session examines the difference between interactive learning that is simply enjoyable classroom interaction and activities that promote depth of thinking, adherence to intellectual standards and rigorous scholarship in the discipline. Continuous assessment of the quality of thinking occurring in the classroom is the central focus of exemplary classroom; the classroom infused with critical thought.

HEDRICH, MARY ANNE

WED 10:30; NICH 204

Assistant Professor, Dept. of Health, P.E., Recreation, and Coaching, University of Wisconsin-Whitewater

The Challenge to Prepare Discipline-Focused Students in Professional Education Programs to Incorporate Critical Thinking into Their Teaching Methodology *COLL, HEALTH, INTER DISC*

College students can come to professional education with little understanding of, or experience with, critical thinking. Introducing the concept and promoting it as necessary and integral to their subject areas often first involves overcoming resistance. One approach is the utilization of strategies that enable students to recognize and value critical thinking as central to learning and "knowing," and to apply its tenets to health and other disciplines with which they may be involved.

One university's experience with health education is described and participants will have opportunity to integrate critical thinking concepts into their discipline areas in professional teacher education.

HEPBURN-THURMOND, VELMA

WED 8:45; STEV 3038

Coordinator of Children Services, New Life Family Center and Florida Memorial College

Homeless Youth: Thinking for Tomorrow

TACTIC/STRAT, H CON, MUL-CULT, STAFF DEV

This presentation will focus on how the unfortunate situation of homeless school age students can be transformed into an in-depth thinking and learning process.

A video has been developed depicting four (4) homeless school aged students discussing how their present family circumstances have sharpened their thinking process in their school, home and community activities.

Post video discussion will include how the plight of homeless youth can be recognized as a critical thinking opportunity for non-homeless students, parents, and educators.

HERMAN, JERRY

MON 3:15; STEV 3036

English Department, Laney College

The Critical Thinking Group Project From Hell, or, "This was the most valuable lesson I have ever learned in my whole entire life."

COLL, TACTIC STRAT, MEDIA, LANG

This session will be an interactive lecture about how to organize successful group projects in critical thinking classes of diverse, urban college students. The presentation will show how to motivate students to combine skills they have developed such as observation, fact finding, inferential thinking and evaluation. The presentation will cover how students learn to think collaboratively and to observe and appreciate the thinking skills and strategies of others. Project topics include media subjects such as analysis of the news, and social subjects such as crime and ballot issues. Many students begin the project dreading it, but most come away believing it was one of their most valuable lessons in thinking.

HERSCHELMANN, KATHLEEN M. **MON 10:30; STEV 3028**
Associate Professor of Management, School of Business, Madonna University

Using Critical Thinking in Career Decision Making
MID, INTER DISC, BUS/ECON, LANG

Participants in this session will share what the Wayne County, Michigan School-to-Work Partnership is piloting as the Job Shadowing portion of its Career Kit for students in grades 8-12. Job Shadowing guidelines are given for students; employers; parents; administrators, counselors, and teachers. Richard Paul's elements of reasoning are used as the foundation by which the student determines; e.g., What is the purpose of this Job Shadowing experience for me? What information do I need to decide what courses to take; what other experiences to have? All parties involved share the critical thinking experiences thereby assisting the student's thinking through career

HOAGLUND, JOHN **SUN 3:15; CAR 68**
Center for Critical Thinking, Christopher Newport University

RALPH H. JOHNSON
Professor of Philosophy, University of Windsor

ROBERT H. ENNIS
Professor Emeritus, University of Illinois

T. EDWARD DAMER
Professor/Author, Department of Philosophy, Emory and Henry College

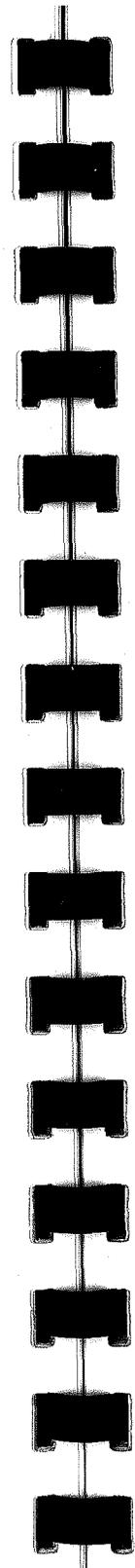
Ralph Johnson's *The Rise of Informal Logic* *ADV, COLL, INF LOGIC, PHIL*

This first book gathering research papers, including several hitherto unpublished by Johnson, one of the leaders of informal logic, will be analyzed and critiqued. Hoaglund will comment on the rise of informal logic and critiques of other writers. Damer will comment on informal logic, critical thinking, and reasoning. Johnson will respond to the comments.

HOAGLUND, JOHN **MON 10:30; STEV 3072**
Center for Critical Thinking, Christopher Newport University

The College Critical Thinking Course: Options and Challenges
COLL, TACTIC/STRAT

The course you teach should be influenced by the goals set by your institution and yourself, the preparation of the students, and the availability of teaching material. Options for beginning and advanced undergraduate courses, emphasis of the course, level of student preparation are explored, and assessment possibilities are looked at.



HOLLIMAN, JUANITA **MON 10:30; STEV 2065**
Assistant Professor, Liberal Arts and Humanities, DePaul University

"Dialogical Thinking" Used as a Teaching Strategy for Topics on Health Care Reform *GEN, NURS, TACTIC/STRAT, SOCIOL*

The presenter will demonstrate the use of a teaching strategy devised to propel students to discuss issues from a myriad of perspectives, ideas and beliefs, and to apply "higher order thinking" and reasoning to classroom discussions. In search of the truth of critical thinking, the teacher chose Paul's (1992) concept of "Dialogical Thinking" as a framework to develop an archetype for a class on "Reasoning the Issues of Health Care Reform." The strategy consisted of identifying critical objectives, and deciding the appropriate "Socratic start-up" to set in motion, dialogical and dialectical student activities. The outcome was successful.

HOMER TOLAN, EVE **SUN 10:30; CAR 10**
Editor/Research Specialist, Assessment Resource Ctr., University of Missouri-Columbia

Student Self-Assessment of Writing/Portfolios and Critical Thinking: Effective Rubrics *ASSES, LANG, HIGH, COLL*

Recent literature reveals that writing teachers value student self-assessment as a learning tool when used with individual essays or portfolios. However, suggestions for self-reflections impel students to opine impressionistically; e.g., "Tell me what you like about your writing"

We will review principles of effective rubrics, examine a critical-thinking writing rubric and interactively apply it to student self-reflections, demonstrating that rubrics constructed from the critical thinking armamentarium help students focus on whether communication is worth making, made effectively, and, over time, whether learning has occurred. Such rubrics promise student comprehension of how to think and write better.

HOOPER, WILLIAM L. **MON 3:15; STEV 3077**
Professor of Music, Southwest Baptist University

Assignments That Require Thinking *COLL, TACTIC/STRAT, ARTS*

Most college and university students are required to complete out-of-class assignments. This session is a workshop in designing assignments that require students to use the modes of thinking essential to the subject under study. Starting with the logic of the course, participants will devise course objectives, develop assignments that require students to use the modes of thinking to attain course objectives, and assess student achievement using intellectual standards.

HUGHES, FRANK MON 3:15; NICH 204
Department Chair of Intelligence Production, Defense Intelligence Agency

The Master's Thesis: A Practicum in Critical Thinking and Argumentation for National Security Estimates *COLL, ADV, INF LOGIC, TACTIC/STRAT*

This presentation will examine how the model of argument advanced by S. Toulmin in *The Uses of Argument* is employed as a teaching tool to assist students in defending their hypotheses directly and efficiently. Model utilization places the emphasis on argument as process, in contrast to the traditional approach of model utilization for the purpose of argument evaluation. Argument evaluation skills are developed in a more realistic setting. Using "Toulmin diagrams," students present their arguments, which then are assessed by their peers in a dialectical situation. Selected "Toulmin diagrams" of student arguments will constitute a part of the presentation.

HUGHES, GAIL MON 1:30; STEV 3030
Coordinator of Program Evaluation, MN State Colleges & Universities

HEIDI GOAR
Instructor, Sociology Department, Inver Hills Community College

SUE SORHEIM
Instructor, German/Problem Solving, North Hennepin Community College

ROBERT H. ENNIS
Professor Emeritus, University of Illinois

Using Framework Questions to Teach and Assess Critical Thinking
INF LOGIC, ASSES, TACTIC/STRAT, STAFF DEV

In this "demonstration and application" session, faculty from a Critical Thinking Interview project will present scripted role-plays to illustrate how to frame questions and assess student responses which relate to three levels of reasoning proficiency: Low - provides reasons, evidence, and sources of information for their position; Medium - supports the strength of their reasons and evidence and the quality of their sources; and High - describes and responds to challenges and alternative perspectives. Session participants will learn how to adapt the framework questions to different topics and will practice using the questions by working in pairs to interview each other.

JACOB, SHIRLEY W. SUN 10:30; STEV 3028
Assistant Professor, Southeastern Louisiana University

CHRIS ELESER
Assistant Professor, Developmental Education, Southeastern Louisiana University

Service Learning in the Classroom *COLL, MID/HIGH, ASSES*

The purposes of the presentation "Service Learning in the Classroom" are to describe a service learning project used in a college classroom and analyze artifacts and comments of participants in their portfolios. The presenter will define and describe a variety of service learning projects, and a step by step

planning and implementation time line will be discussed. Portfolios and reflective self-assessment responses from students regarding their service learning experiences will be shared.

JACOB, SHIRLEY W. MON 3:15; CAR 10
Assistant Professor, Southeastern Louisiana University

CHRIS ELESER
Assistant Professor, Developmental Education, Southeastern Louisiana University

Empowering Students in the Learning Process Through Their Presence
COLL, MID/HIGH, ASSES

The purpose of this presentation is to define the role of the student in the learning process and to assist in self-assessment of their responsibilities in learning. The participants will explore student "presence" spiritually, mentally, physically, and emotionally and identify their impact on student learning. A tried program will be introduced in which students daily quantitatively measure their presence and qualitatively assess their learning presence. The presenter will share patterns of learner presence and discuss the implications this information has for the instructor and students. Assessment responses from students regarding their presence awareness will be shared.

JOHNSON, C. LINCOLN MON 10:30; STEV 3030
Professor of Philosophy, University of Notre Dame

Social Psychological Principles Underlying Critical Thinking in the Classroom and in Everyday Life *GEN, INTER-DISC, PSYCH, TACTIC/STRAT*

This workshop will draw upon a number of well established social psychological principles which affect an individual's perceptions and judgements, and consequently his or her ability to think critically. Major attention will be given to the attribution process, which is the term given to the way in which people perceive and judge others. All people are subject to attribution biases, which can affect critical thinking as it occurs in the classroom and in everyday life. Awareness of these biases is one means of enhancing critical thinking.

Participants will have the opportunity to participate in a few mini-exercises which illustrate these social psychological principles.

JOHNSON, RALPH H. MON 10:30; STEV 1002
Professor of Philosophy, University of Windsor

DIANNE ROMAIN
Professor of Philosophy, Sonoma State University

Hot Topics Series: Feminism and Critical Thinking *GEN*

This session is one of the Hot Topics series and will feature Ralph Johnson and Dianne Romain discussing the question "Has feminism made a contribution to critical thinking?" See page 5 for further details.

JOHNSON, RALPH H.

Professor of Philosophy, University of Windsor

TUES 1:30; STEV 2049

The Need for a Dialectical Tier in Arguments *ADV, COLL, INF LOGIC, PHIL*

Among the most important forms of reasoning, as far as critical thinking is concerned, is argumentation. The traditional conception of argument is that it consists of premises leading to and supporting a conclusion. In this paper, I argue for a rethinking of that conception along two lines.

First, I think any credible understanding of argumentation must take into account its various purposes and functions. I shall give special emphasis to argument as rational persuasion. Second, I argue for the need for what I call the dialectical tier, in which the arguer discharges his or her dialectical obligations.

JOHNSON, JAMES A.

Chairman and Professor, Health Administration & Policy Department, Medical University of South Carolina

WED 8:45; STEV 2065

BILL W. SANDERSON

Principal, Birney Middle School

The Use of Critical Thinking to Enhance Health Professions Career Choices in Adolescents *MID/HIGH, ADV, HEALTH, INTER DISC*

All too often students in the middle and high schools when considering career opportunities in the health professions only consider medicine and nursing as potential options. Very few have been exposed to the wide range of alternative careers such as the many allied health professions that don't require extensive advanced preparation. Thus, a program that facilitates early career decisions that create an educational pathway into these professions will be highly valued and will provide students with options that heretofore have not been maximized.

In order to maximize the early career decisions of adolescents a program that utilizes critical thinking skills is being developed to aide in their identification of high potential career opportunities in the health sciences. Specifically, students are taught to analyze their own abilities and limitations as well as interest in order to critically assess which pathway is most appropriate to ensure career success in their future.

JONES, BUNNY

Assistant Professor of Liberal Arts, Cal Maritime, CSU

TUES 1:30; STEV 3026

Identifying Biases and Broadening Perspectives *TACTIC/STRAT, COLL, HIGH, BEG*

This session focuses on exercises, a few of which will be experienced but most of which will be summarized. Some help students identify biases or assumptions. Others require students to decipher the message of a puzzle by experiencing more than one perspective. Still others show how easy it is to get locked into one viewpoint or require students to take a stand, then draw inferences about their values. In all cases, students will be learning the dif-

ference between their opinions and a broader perspective. A generous number of handouts will describe the activities, which have been used in English, humanities, and social science classes.

KERWIN, ANN

Philosopher in Residence, University of Arizona

TUES 10:30; STEV 3072

CHARLES L. WITTE

Professor of Surgery, University of Arizona

MARLYS H. WITTE

Professor of Surgery, University of Arizona

Q-Value (Power to Generate Earnings) and the Value of Q (Questioning) *GEN, TACTIC STRAT, STAFF DEV*

Education has intrinsic or Q-value: power to generate life-long learning. It has enormous social Q-value: effective, thoughtful individuals "produce" far in excess of their schooling costs. Obsession with factual regurgitation and superficial coverage leads to intellectual downsizing—and erosion of priceless capacity—building assets. Three Qs — questions, questioning, and questioners — repay investment. Answers change; facts decay, but abilities to question critically and creatively catalyze life-long learning and productivity. This participatory session re-acquaints educators at all levels with the intrinsic value (and pleasure) of QQQ: learning designed around questions, questioning, and questioners. Expect a high return on time invested in QQQ!

KOEHLER, CAROL

Assistant Professor, Communication Studies, University of Missouri-Kansas City

TUES 3:15; STEV 2001

An Investigation of Variables that Define Collaborative Critical Thinking *COLL, ASSES, INF LOGIC, PSYCH*

Collaborative critical thinking is defined as working together in a joint intellectually disciplined effort of conceptualizing, analyzing and evaluating information where the process of mutual debate is preserved by providing a forum through which disagreement is honored and problem solving is consensual - a quality that Robert Reich identifies as a necessary skill for addressing complex problems in the 21st century. This research statistically compares identifiable critical thinking skills and dispositions, with the communication variables of trait argumentativeness and argument flexibility in order to examine and identify specific variables that define collaborative critical thinking.

KRAUS, TED M.

MON 10:30; STEV 2001

Consultant, Critical Enjoyment

Introducing Critical Thinking to Senior Citizens via Critical Analysis of Arts Reviews ADULT, ARTS, MEDIA, LANG

Introducing senior citizens in adult education courses to critical thinking is very different than teaching college students. Major differences are the difficulty of assigning outside reading and the general refusal to do homework. But seniors are of a generation who do read newspapers and they do have rich life experience. Principles, concepts and techniques of critical thinking can be taught by critical analysis and critical reading of newspaper reviews of the arts—film, theatre, music, dance, visual art, books. Seminar attendees will apply critical analysis to photocopies of arts reviews from the San Francisco Chronicle of the previous week prior to the convention. The aim of the session is to show that the senior generation can be taught critical thinking material that is being taught to their grandchildren in high school and college classes.

KUBEY, ROBERT

MON 10:30; NICH 173

Associate Professor, Department of Communication, Rutgers University

Obstacles to Critical Thinking About the Media: An International Perspective MEDIA, STAFF DEV, H CON, INTER DISC, ADV

Why is it that every major English speaking country in the world is currently further along than is the United States in the mandating and formal delivery of critical thinking curricula about the media? The answer is multi-faceted and provides a window on to U.S. pedagogy generally and U.S. culture in particular. The reasons have to do with how Americans typically think about the media, politics, and entertainment; with how U.S. schools are structured bureaucratically; with the general lack of federal education policy in the U.S.; with the economics of media and education; and perhaps most importantly with an entrenched resistance to self and societal examination both culturally and educationally. This session examines common forms of resistance to implementing critical thinking pedagogy, while encouraging participants to share their own experiences.

KUCHURIS, CHRIS

MON 3:15; STEV 3038

Instructor, Department of Philosophy & Regional Studies, Community College of Southern Nevada

Imagination and Critical Thinking TACTIC/STRAT, BEG, SOCIOL, GEN

Before genuine critical thinking can take place, students must possess the ability to use their imagination in a creative and constructive dimension. All too often traditional education ignores or discourages the development of imaginative abilities. Without these skills, students often flounder and become discouraged. In this session I will demonstrate how this occurs and the crucial role the imagination plays in the critical thinking process. I will also involve participants in an exercise in rekindling the imagination which they can then implement with their students.

KUMAR, MEERA

MON 10:30; STEV 3077

Associate Professor, English Department, San Diego Mesa College

Critical Thinking in Indian and Chinese Philosophies

MUL-CULT, PHIL, GEN, INTER DISC

My presentation will focus on the aspect of critical thinking in two famous Eastern philosophies, Indian and Chinese, and show how the absence of religious dogma and instructions, or guidelines for worship, and a belief in a self-existing moral law may have contributed to the freedom of intellectual enquiry that resulted in the formation of two of the most dynamic civilizations of the ancient world. Exposure to these ideas might lead to not only a better understanding of diverse cultures, but might also show how today's strife-torn world can benefit from ancient wisdom.

LAKE, DAVID

WED 8:45; ART 108

Professor and Department Head, Physical Therapy Department, Armstrong State College

Problem-Based Learning (PBL) as a Critical Thinking Teaching Methodology HEALTH, TACTIC/STRAT, COLL, BEG

Problem-Based Learning (PBL) is an active learning methodology which is gaining wider use in health professions education. PBL is centered on critical thinking as the first step in clinical problem identification and problem solving. This approach involves the instructor as facilitator of group issue identification, group learning, plan development, and discussion of the learned material. This session will introduce the key features of PBL and allow participants to do an initial PBL session in small groups. This session will be followed by a facilitated discussion of what occurred in the small group activity and how the principles of PBL and critical thinking were applied.

LAROCHE, PIERRE

MON 1:30; NICH 173

Assistant Professor, Developmental English/General, Dona-Ana Branch Community College

STEVE LUDINGTON

Instructor, Developmental English, Dona Ana Branch Community College

Writing: Learning to Think Critically, Rhetorically and Conventionally

COLL, LANG, TACTIC/STRAT, INTER-DISC

Some educators claim that composition courses are contentless, just mechanics and style applied to a discipline. We strongly disagree. If useful education teaches students the logic of a discipline, then composition courses should teach the logic of writing.

Thinking like a writer means that student writers should learn to control texts using critical thinking, rhetorical thinking and conventional thinking. This conceptualization has transformed our courses and the kind of college-wide changes we advocate. The session includes a discussion of the content of college writing, sample assignments, and small group exercises to help participants rethink writing assignments.

LASSEK, YUN JA

WED 8:45; CAR 10

Educational Consultant, Critical Thinking and Philosophy

New Tools for Education: Using Computer Power to Promote Critical Thinking *COLL, K-12, COMP AID, TACTIC/STRAT*

This workshop will focus on the problem of how theoretical discussions regarding the latest developments in computer technology and cognitive science may be translated into classroom strategies to teach critical thinking.

In order to develop useful and constructive solutions, I will first briefly explore the power of the human mind/brain—its neural network system and in particular, its visual and perception systems. I will explore the act of seeing as a constructive cognitive process by utilizing current discoveries by neuropsychologists and the cognitive scientists. These studies provide convincing arguments for active learning and teaching methods.

I will present examples of computer aided classroom instruction, such as teaching history through computer simulation and "InterQuest," an introductory philosophy course taught through use of the World Wide Web and E-Mail Listserve.

The classroom strategies and lesson plans will be developed by the participants in the groups of three persons, to then be shared with the larger groups for the discussion and improvement.

LESLIE, WILLIAM

MON 1:30; STEV 3026

Philosophy Department, Palomar College

Who Killed T-Rex? *SCIENCE, PHIL, TACTIC/STRAT*

Upon first report, the idea that an asteroid impact with Earth may have set off a series of events leading to the extinction of most dinosaur species sounds implausible. Yet a body of coherent empirical evidence may indeed point to the "killer asteroid" hypothesis as the most credible. The Scientific Method is paradigmatic of thinking critically about the physical world, and this method is clearly and engagingly presented in the PBS documentary "The Death of the Dinosaurs" to be shown. Initial questions, hypothesis formation, field and lab experiments, confirming/disconfirming evidence and competing explanations are all presented and will be discussed.

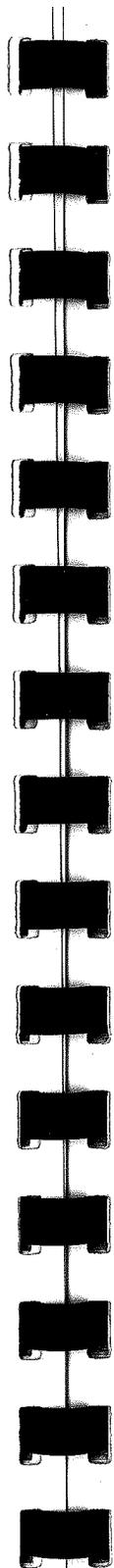
LEVY, NATHAN

SUN 1:30; STEV 3028

Principal, Monmouth Junction School

Practical Ideas, Activities, Strategies, and Materials to Stimulate Integrated Thinking in the Classroom *K-12, INF LOGIC, STAFF DEV, TACTIC/STRAT*

This workshop explores numerous ways to reach learners in creative and challenging ways. Teachers will learn to assist their students in developing fluency of thinking and writing. They will learn to differentiate between



fact and opinion. They will develop options for problem solving. Participants will leave with a plethora of new time saving strategies and abundant creative ideas for activities and specific materials for implementing several of the new methods presented.

LEVY, NATHAN

MON 1:30; NICH 204

Principal, Monmouth Junction School

Teaching Gifted Children in the Regular Classroom

K-12, INF LOGIC, STAFF DEV, TACTIC/STRAT

This workshop combines practical strategies and ideas for teaching gifted children in classrooms where you have one gifted child, or a whole classroom of gifted children. Emphasis is placed on the affective and cognitive domains. Activities are demonstrated which enable the students to create expressions that arise out of their experiences in the world. They will learn to be critical, creative and will have the skills to express themselves. Participants will leave with specific methods they can implement in their classrooms the next day.

LEVY, NATHAN

TUES 3:15; STEV 3077

Principal, Monmouth Junction School

Using Stories With Holes and Other Thinking Skills

K-12, INF LOGIC, STAFF DEV, TACTIC/STRAT

This workshop focuses on the use of logic stories to foster divergent thinking, group process, listening skills and creativity on a regular basis. The audience has the opportunity to try to solve some of the logic stories, and to learn the processes that can be used to increase children's abilities to think creatively and summarize information more adeptly. In addition to solving logic stories, the participants will be introduced to a variety of original creative and unique activities to develop divergent thinking skills that they can use immediately following the workshops.

LEWIS, RICHARD B.

MON 1:30; STEV 3036

Associate Professor, Civil Engineering Department, Louisiana Technical University

Infusing Critical Thinking into Every Classroom Activity

TACTIC/STRAT, MATH/SCI, ADV, COLL

This participatory workshop will give concrete examples of how to change lecture methods that are teacher-oriented into exciting student-oriented challenges. This advanced session assumes all attendees have a basic understanding of the several definitions of Critical Thinking in Richard Paul's book, and understand the Elements of Thought, the Standards, and some of the Traits. From this jumping-off point, we will spend most of our time in writing, assessing, asking questions, writing, and assessing. The idea is to allow attendees to express themselves critically, then find ways to transfer those new abilities into the classroom. If this sounds like work, it will be! If it sounds like excitement, it will be!

LOFTHOUSE, LYNN J. SUN 1:30; STEV 3038
Associate Professor, Department of Speech, Wesley College

LYNN R. CLAPHAM
University of Arizona

Conflict Pattern Assessment Techniques: Training Individuals to Better Identify Underlying Structures GEN, H CON, TACTIC STRAT

This training session seeks to build CT skills which will aid conflict parties in the assessment of conflict structures. Three techniques will be taught: Metamorphic/Dramatic Approach, Triangular Analysis, and Choreographing. For each technique, a definition of the technique will be followed by a visually-based, participatory, interactive format for training trainees on how to identify and utilize each. Participants will view a conflict, and then will work through assessment as a group. Feedback and constructive criticism will be provided to help trainees learn concepts central to understanding how to employ each technique.

LOFTHOUSE, LYNN J. TUES 1:30; STEV 3038
Associate Professor, Department of Speech, Wesley College

LYNN R. CLAPHAM
University of Arizona

Techniques to Inspire Critical Thought When Teaching Kindness to Animals: An Interactive Approach ELEM, ENV, SOC STUD, TACTIC STRAT

This session will be presented on the format of a workshop. It seeks to provide training in the area of kindness to animals, a concern being increasingly recognized. Specifically, the focus of the workshops to show teachers how to create awareness in young school children about the importance of treating all living beings with kindness and respect. The training centers around how benefits derived from pets and responsibility for their care build critical thinking skills, as related to our basic conceptualization of critical thinking. Training includes specific ideas and illustrations on methods most useful to teach youngsters kindness, and specific content material will be shared.

LOVELESS, EDNA MAYE TUES 1:30; ART 108
Professor, English & Communication Department, La Sierra University

A Rhetoric of Integrity: Women of Note Who Have Exhibited Critical Thinking Skills Worthy of Examination LANG, FEM, MID/HIGH, COLL

This session takes a crack at the idea that pre feminist-movement women—often overlooked and slighted—were therefore typically reduced to roles of insignificant influence. Specifically, it examines their employment of critical thinking in speeches, writing, and actions as demonstrated in biographies written for young people. Generating alternative responses will give participants a classroom-type experience in critical thinking.

These thinking strategies are worthy of examination and deserve emphasis in the classroom where young readers explore the biographical genre. We will analyze enthymemes used by these women and reported by their biographers. Enthymemes require a subtle line of thinking: ability to perceive the values of one's audience and ability to evoke inferences in the audience based on its values.

LOVELESS, WILLIAM MON 10:30; NICH 204
Professor, Social Work/Religion, Loma Linda University

Critical Thinking as a Business Enterprise ADULT, BUS/ECON, PSYCH, STAFF DEV

Critical thinking is to business what basic research is to technology. Critical thinking is the point of view of the strategic planner, who has come to recognize that the most successful strategies are visions, not plans. Formal planning by its very nature (analytical) has always been dependent on the preservation of established categories of data. True strategic change requires not merely rearranging the established categories but inventing (re-engineering) new ones. Inspired by the work of Dr. Linda Elder, who notes the interrelationships of cognition, feeling, and desire, this presentation will explore the characteristics of critical thinkers who seem to combine successfully the hard and soft sides of critical thinking in the market place. When the "affective" side of thinking is recognized and utilized, changes in planning usually appear. This session will consist of two short lectures and two group encounters dealing with problem situations where appropriate strategies of critical thinking (questioning) will be explored. Opportunity will be provided for participants to interact around two important themes: how to formulate the right questions while avoiding hasty prediction and undue detachment and how to apply the canons of critical thinking to business, including the ethical and environmental questions spawned by a global market place.

It could be said that good things, i.e., profit, higher productivity, and increased morale happen in the market place and employee's heads when thinking, feeling, and caring combine together.

LUCKEY, SUE Y. WED 10:30; CAR 68
Professor of Business Education, Morehead State University

Project Roller Coaster: A Model to Produce Problem Solvers and Critical Thinkers HIGH, INTER DISC, TACTIC/STRAT, STAFF DEV, BUS/ECON

Since 1990, national initiatives such as Tech Prep and School-To-Work have helped restructure pre-college education. These programs require coordination of vocational and academic courses, allowing student collaboration on joint projects. In Kentucky, TP/STW programs are also impacted by the thinking skills/problems solving curriculum mandated by the nationally known Kentucky Education Reform Act of 1990 (KERA).

This session will examine these curriculum restructuring initiatives which require the creation of a thinking and problem solving environment. Session participants will use Richard Paul's 35 Dimensions of Critical Thought and his Intellectual Standards to enhance a Kentucky vocational-academic integration model: Project Roller Coaster.

LUCKEY, JR., GEORGE M. TUES 3:15; STEV 3030
Director of the Center For Critical Thinking, Morehead State University

Fostering Dispositions GEN, BEG, TACTIC/STRAT

The Center for Critical Thinking at Morehead State University has developed instructional strategies for fostering thinking dispositions such as fairmindedness, flexibility, respect for other viewpoints, and persistence, among others. This interactive session will examine the Center's (1) self-assessment inventories, (2) prompts for group discussion or writing assignments, and (3) strategies for moderating the negative effect of slogans such as "You can't change human nature" and "I know when I'm right" that reflect the absence of important thinking dispositions. Participants will adapt these strategies for their own classroom practice using session hand-outs.

MACKENZIE, JOHN SUN 10:30; STEV 3030
Deputy Head, The Grange School

Theory of Knowledge: An International Baccalaureate Perspective on Critical Thinking INTER DISC, PHIL, TACTIC/STRAT, HIGH, GEN

In the course of this session it will be argued that Critical thinking is a central part of the International Baccalaureate's Theory of Knowledge course. Despite the fact that it appears to have a wider brief than critical thinking, one could not aim to develop these skills without an understanding of the nature of knowledge, or various ways of knowing, nor could one expect them to develop in a context of disregard for others. A certain capacity to 'stand back' from one's beliefs, and an openness to those of others, are both important features of anyone capable of rigorous reflection.

MAYFIELD, MARLYS SUN 3:15; STEV 3008
Arts and Sciences Department, Golden Gate University

Teaching for Emotional Intelligence COLL, STAFF DEV, TACTIC/STRAT, H CON

In the 1980's educators came to accept the idea that thinking could be taught as a skill. In the 1990's, educators are beginning to wonder if emotional intelligence could be based on teachable competencies. This is a workshop that says "Yes, and here's how" from a presenter who combines careers in teaching critical thinking, communication, and feeling awareness. Innovative programs for teaching emotional literacy to children that have improved academic performance will be discussed. Demonstrated will be exercises for integrating cognitive and emotional skills including those

involving interpersonal problem-solving, feeling awareness and management, impulse control, empathy development, and stress reduction. Suggested readings: *Emotional Intelligence* by Daniel Goleman, (Bantam, 1995), *Raising a Thinking Child* by Myrna Shure (Simon & Schuster, 1996) and *How to Talk so Kids Will Listen and Listen so Kids will Talk* by Adelle Faber (Simon & Schuster, 1995) and *The Power of Focusing* by Ann Weiser Cornell (New Harbinger Publications, 1996).

MAYO, HARRY SUN 1:30; ART 108
Instructor, English Department American River College

Rationale for Using Critical Thinking as a Mode of Instruction in a High School or College Classroom BEG, COLL, STAFF DEV, TACTIC/STRAT

What are you doing in the classroom now? Just lecturing? This is considered by many to be an outmoded form of instruction. After teaching this way for almost thirty years and suffering from the dreaded burnout, I found an invigorating way to assist students in the learning process. Critical thinking! How do you do this you ask? It's easier than you think. It just takes an attitude adjustment to allow for change along with a heap of perseverance. The result was that by students learning a critical thinking approach, they became empowered by taking control of their thinking and learning. Join me and learn how one instructor reasoned his way into using critical thinking as a new and invigorating teaching mode.

MCCAIN, A. EARL TUES 10:30; STEV 2006
Professor, Teacher Education Department, Weber State University

The Case Study: A Base for Analytical Operations Components of Critical Thinking BEG, GEN, TACTIC/STRAT

The case study is a valuable strategy for skill building, particularly in the realm of introducing and reinforcing critical thinking abilities. By giving their students an opportunity to process actual or fictional case studies, teachers can pose a wide variety of analytical or evaluative tasks to be addressed. Because case studies have been used most frequently at the collegiate level, especially in the areas of law and medicine, elementary and secondary teachers may have had little or no occasion to use the case study strategy due to the lack of commercially produced materials. Most of those who have used the strategy have had to develop their own resources.

The session focuses upon two elements of the case study strategy. First, participants will be introduced to the selection and/or construction of case studies suitable to their students and their course content. Second, the participants will be engaged in the analysis of a set of case studies to determine which thinking abilities may be appropriate to the cases. Small groups will then propose methods by which the case study materials may be used in the classroom.

MCCONNELL, ROBERT L. TUES 3:15; NICH 173
Professor, Environmental Science and Geology, Mary Washington College

DANIEL C. ABEL
Instructor of Marine Science, Coastal Carolina University

Countering Misrepresentation of Environmental Issues Using Critical Thinking and Simple Math COLL, MID/HIGH, ENV, MATH/SCI

We are currently in an era where important environmental issues are misrepresented by effective use of rhetoric and flawed, superficial analysis. In the absence of critical thinking skills, students and others are unprepared to evaluate these issues and thus are often forced to accept unsubstantiated claims. In this participatory workshop, we will distribute exercises that incorporate the use and simple manipulation of numerical data to think critically about the following: population growth, global warming, wetlands loss, proliferation of paving, over-fishing, and others. We will also provide tools that encourage participants to develop their own relevant local exercises.

MIHOLIC, VINCENT SUN 1:30; NICH 173
Assistant Professor, Department of Developmental Educations, Southeastern Louisiana University

CHRIS ELESER
Assistant Professor, Developmental Education, Southeastern Louisiana University

Photography: A Metaphor and Tool for Critical Thinking and Writing TACTIC/STRAT, BEG, LANG, COLL

In his essay, "The Photographer's Eye," John Szarkowski explores the critical perspective inherent in photography. He speaks of "filtered" realities and the subtleties between illusion and truth, between fact and reality. Photographic concepts will be explored with respect to critical thinking, particularly point of view. Through practical application, participants will explore how to incorporate the camera within their instruction, using it as a tool to guard against oversimplification, to aid in broadening perspective and achieving clarity, to evaluate sources and credibility of information, to reason dialectically, and, therefore, to think and write more accurately about one's ideas and observations.

Note: For workshop application and classroom use, a limited number of instamatic cameras will be provided to participants by the Polaroid Education Program.

MORGAN, JR., WAYNE R. SUN 1:30; STEV 2001
Chemistry Instructor, Quality Coordinator, Hutchinson Community College

Instructional Strategies and Techniques for Improving and Assessing Critical Thinking TACTIC/STRAT, ASSES, STAFF DEV, GEN

A number of instructional strategies of use for the instruction and assessment in critical thinking will be presented. These strategies are taken from a

variety of sources including classroom assessment and total quality management. Each strategy is designed to actively engage the learners and help make them more responsible for their learning. These strategies can be utilized in the teaching of, for or about critical thinking. Evidence supporting the effectiveness of these strategies in facilitating critical thinking will be provided. Participants will be given the opportunity to explore several strategies during the session.

MORGAN, JR., WAYNE R. MON 3:15; STEV 3028
Chemistry Instructor; Quality Coordinator, Hutchinson Community College

EMMETT L. WRIGHT
Center for Science Education, Kansas State University, College of Education

Assessing the Critical Thinking of Students: The Relationship Between Instruction and Thinking ASSES, TACTIC/STRAT, SCIENCE, K-12

Evidence from several research studies suggests that critical thinking can be assessed using measures embedded within regular course work. These lines of research suggest that some instruction approaches may be effective in improving the critical thinking displayed by students. Participants in this session will be introduced to the research studies, familiarized with the types of instructional strategies investigated, and engaged in an activity to illustrate the types of modifications to existing strategies suggested by the research. Time will be set aside for discussion of what impact this research might have on pedagogy directed toward critical thinking.

NEWBERRY, PAUL MON 10:30; STEV 3049
Lecturer, Philosophy & Religious Studies, California State University, Bakersfield

Discussion, Journals, and Critical Thinking COLL, TACTIC/STRAT

Many educators recognize the need to encourage critical thinking in their classes, but are not sure how. After all, there is course content to cover, tempting teachers to lecture more and discuss less. Further, ever-increasing class size makes discussions unwieldy, and makes the work involved in grading writing assignments unduly demanding. Yet we can encourage students to think critically even within these constraints. In this session, I will share some ideas I have used in college classes that have between 45-90 students. I use the traditional tools of student journals and class discussions, but the focus is on encouraging students to think critically without increasing the amount of grading required of the instructor. This session will be primarily hands-on, so the participants will have the chance to use journals and discussion as students do in the classroom.

NILAND, MAUREEN MON 3:15; STEV 3049
Associate Professor, Nursing Department, Seattle University

Critical Thinking: Using Clinical Simulation for Assessment and for Teaching Reasoning Process COLL, NURS, ASSES, TACTIC/STRAT

This session focuses on the use of clinical simulations and the reasoning process. A pilot study was done, using a videotaped (VT) simulation, for assessment of the reasoning process of nursing students. This was part of the assessment of critical thinking of senior nursing students. The session will include discussion of simulations for teaching the reasoning process and critical thinking. A segment of the VT will be shown during the session.

NOMISHAN, DANIEL SUN 1:30; STEV 3026
Associate Professor, Education Department, Fitchburg State College

Advanced Strategies and Approaches for Teaching Critical Thinking in the Content Areas GEN, TACTIC STRAT, INTER DISC, STAFF DEV, MATH/SCI

Critical thinking is often confused with other forms of thinking (Doyle, 1983, Sykes, 1985; Shulman & Carey, 1977). Critical thinking involves cognitive and affective processes necessary for the testing and evaluation of a proposed solution.

The proposed workshop presentation will provide opportunities for participants to define critical thinking, examine the rationale for the development and use of strategies and approaches for teaching critical thinking in the content areas, and to appraise different situations involving effective utilization of critical thinking skills and standards.

NOSICH, GERALD SUN 10:30; STEV 2006
Professor of Philosophy, University of New Orleans

What Is Critical Thinking? Why Should I Teach for It? How Can I Teach for It? GEN, 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 for all educational levels. A question period will follow the presentation.

NOSICH, GERALD MON 3:15; CAR 68
Professor of Philosophy, University of New Orleans

Thinking About the Logic of a Field or Discipline MID/HIGH, COLL

In teaching students a discipline or a field of study (like biology, management, sociology, reading, etc.), it is important that students get hold of the

logic of the field. That is, it is important that they develop an idea of the field not as a bunch of details strung together, but as a purposive way of thinking, as an integrated whole. A way to explicate the logic of a field is to take the elements of reasoning – the most central concepts of critical thinking – and apply them to the field or area of study as a whole. This will be the main activity of this session: after an introduction and some examples, participants will work on developing an account of the logic of their own fields. There will be sharing and discussion.

NOSICH, GERALD TUES 10:30; CAR 68
Professor of Philosophy, University of New Orleans

Thinking Realistically About Anger GEN

This will be a workshop centering on a set of activities I have my students engage in during a course on Critical Thinking. The goal of the activities is to get students to become better able to think critically about their own anger and the situations that give rise to that anger, to begin to develop a model that can help them become more pro-active in anticipating those situations, and perhaps to become a little more adept at dealing reasonably with their anger. Participants in the workshop will engage in some of these same activities.

NOSICH, GERALD TUES 1:30; STEV 1002
Professor of Philosophy, University of New Orleans

IAN WRIGHT
Associate Professor, Curriculum Studies, University of British Columbia

Hot Topics Series: Morality and Critical Thinking GEN

This session is one of the Hot Topics series and will feature Gerald Nosich and Ian Wright discussing the question "Can one be a good critical thinker and an immoral person?". See page 5 for further details.

NWA, WILLIA L. WED 8:45; NICH 304
Educator, Secondary Education-English, Canton City Schools

Thinking Critically About Cultural Diversity: How Should Educators Do It? COLL, MID/HIGH, H CON, MUL-CULT

Multicultural 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 multicultural education to be effective, an holistic, transformation 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 multiculturalism, 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'CONNELL, DANIEL SUN 3:15; STEV 3028
Associate Professor, Social Science & Public Service, Palm Beach Community College

Critical Thinking in Politics: The Practice of Public Deliberation in National Issues Forums *COLL, ADULT, POL, SOC STUD, TACTIC/STRAT, SOCIO*

This conference has set as its primary goal the modeling of high level reasoning. This involves reasoning through complex issues, carefully following arguments from different perspectives, evaluating the strengths and weaknesses of all positions, and gaining new insights from diverse and conflicting viewpoints.

A classroom, campus, and community model of public deliberation, called the National Issues Forums has been developed, practiced, and refined to accomplish this goal. This workshop is designed to explain this critical thinking method, provide an opportunity for participants to participate in a forum on a current hot political topic, and then evaluate and discuss this experience for use by participants in their teaching and citizenship roles.

OCHSE, ROGER MON 10:30; STEV 3026
Assistant Professor of English, Black Hills State University

Critical Thinking: A Model for Collaborative Research
GEN, TACTIC/STRAT, INTER DISC

The 90 minute workshop will introduce participants to using a critical thinking model for engaging college students in collaborative research projects. Participants will be conducted through an abbreviated working demonstration of the process: (1) understanding of the critical thinking model; (2) practicing collaborative learning and its application to the research process; (3) following the steps of collaborative research; (4) assembling individual projects and critiquing them in group session; (5) writing a collaborative introduction to the individual essays, and (6) producing a first draft version of the collaborative research project.

OXMAN, WENDY SUN 3:15; STEV 2049
Professor, Director-Institute for Critical Thinking, Montclair State University

Teachers' Conceptions of the Theory and Practice of Critical Thinking as an Educational Ideal *GEN, BEG, TACTIC/STRAT, STAFF DEV*

How do teachers interpret the meaning of "critical thinking as an educational ideal?" What, for them, are the principles and practices of critical thinking? How do they describe critical thinking as it occurs in the class-

room? What do they see as important ways of teaching for critical thinking? How do they convey these ideas to others?

This session presents an analysis of the understandings that teachers completing their academic work in the M.Ed., Concentration in Critical Thinking at Montclair State University give, generally, to the principles and practices of critical thinking. The implications of these understandings for teacher education, for in-service work, and for educational materials, will also be discussed.

PAUL, RICHARD TUES 10:30; SU 100
Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Introduction to Assessment *GEN, TACTIC/STRAT, STAFF DEV*

This is part one of three sessions on assessment and testing by Richard Paul. In this session Richard will lay the foundation, by focusing on the following questions: What is assessment (evaluation)? What role does it play in our day to day lives? How does assessment differ from subjective preference? What role does self-assessment play in critical thinking? What intellectual standards are essential to assessment in critical thinking? (This session will be video-taped)

PAUL, RICHARD TUES 1:30; SU 100
Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Critical Thinking Tests: Their Strengths and Weaknesses
GEN, TACTIC/STRAT, STAFF DEV

In the second session of the assessment series, Richard Paul will review and assess (in a broad and overarching way) the available critical thinking tests, both multiple choice and essay. (This session will be videotaped.)

PAUL, RICHARD TUES 3:15; SU 100
Director, Center for Critical Thinking and Moral Critique, Sonoma State University

How to Teach Students to Assess Their Own Work *GEN, TACTIC/STRAT, STAFF DEV*

In this session, the third of three sessions on assessment and testing, Richard Paul will present a model and a variety of structures and strategies which he recommends as means for teaching students how to assess their own work and that of their peers. (This session will be video-taped.)

PAUL, RICHARD WED 8:45; STEV 1002
Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Critical Thinking and Informal Logic *GEN, ADV, INF LOGIC*

In this session, Richard Paul will outline and defend his views on the relation of critical thinking to informal logic. He will argue for a broad conception of informal logic, in which the word 'informal' is synonymous with 'non-formal.' He will show the relationship between his use of the notion

of "domains" of logic with the notion of academic disciplines. He will argue that there are universal structures and criteria appropriate to virtually all domains of reasoning and that in most domains, it is "informal" logic which wears the pants.

PAUL, RICHARD **WED 10:30; STEV 1002**
Director, Center for Critical Thinking and Moral Critique, Sonoma State University
Strategies for Long-Term Staff Development in Critical Thinking
GEN, TACTIC/STRAT, STAFF DEV

In this session, Richard Paul suggests strategies for long-term staff development in critical thinking at all grade levels.

PAYTON, PHILLIP W. **MON 3:15; CAR 20**
Professor and Director, Business Administration & Economics, Lincoln University
Socratic Questioning and Critical Thinking: Mergers, Layoffs, Downsizings—or New Business Policies?
COLL, ADULT, SOC STUD, TACTIC/STRAT, BUS/ECON

After giving the audience time to see examples in handouts and presenting a theoretical discussion, this session will analyze the effects of company mergers, downsizings, and layoffs. Socratic-type questioning and critical thinking about these processes and outcomes in businesses can lead to more rational business policies and planning. When these policies are implemented, they can result in a more satisfied workforce and better choices for consumers and businesses. This whole approach used in this session, if developed in the classroom, could serve as a teaching strategy.

PEAKE, LLOYD **WED 10:30; STEV 2065**
Assistant Professor, School of Business & Public Administration CSUSB

JOHN SEALANDER
Director, Center for Spiritual Freedom
Affirmative Action—The Anomaly of Inequality
COLL, H CON, MUL-CULT, BUS/ECON, POL

This presentation will briefly trace the history of Constitutional adjudication with respect to the Equal Protection Clause of the Fourteenth Amendment of the United States Constitution with respect to matters of race and more specifically government sponsored affirmative action programs. Such historical perspectives will demonstrate a basic anomaly that taking race into account by preference or otherwise may indeed result in unequal treatment, while at once failing to take race into account may result in inequality by maintenance of a status quo which offers substantial evidence of unequal treatment and opportunity related to race. This anomaly involves a

central question addressed in this presentation as to whether one must treat some people differently in order to treat them equally.

PHELAN, MARY ANNE **WED 8:45; STEV 3072**
Researcher, Center for Needs Assessment & Planning, Florida State University
Helping Adult Learners Overcome Alienation: What Role for Critical Thinking? *ADULT, PHIL, TACTIC, STRAT*

Alienation is a matter of being estranged from our knowledge of ourselves, from our knowledge of the products of our work, from our knowledge of our social relations and from our knowledge of non-human objects. Critique of our knowledge is the principal component of the environment in which to reduce these estrangements and gain ownership of knowledge and thus in which to overcome alienation. Session participants will be able to identify the role of critical thinking in that environment called the "ideal speech situation," the five components of that environment and the tools useful in assessing any learning environment for proximity to the ideal.

PINEDO, JAVIER **WED 10:30; STEV 3038**
President, Association of Chess & Teachers, U.S. Chess Federation
Hands & Minds On: Chess and 3D Puzzles in the Classroom *GEN, INTER DISC, MATH, INF LOGIC*

This session will provide information and "hands-on experience" on how chess and 3D puzzles (that children and adults can touch and manipulate) can enhance critical thinking.

The participants will learn how to use "Chess" as a teaching tool and how to integrate chess in the classroom. They will also learn how to apply the methodology currently used to teach in other areas to make chess instruction meaningful. The participants also will receive copies of doctoral research on the benefits of chess in the schools, how chess develops critical thinking, and complete guides to effective chess programs.

In the second part of the session, the participants will play and have fun with a selection of 3D puzzles. By doing so they will understand that the objective of these manipulatives is not just to have "hands-on" but also their "minds will be on." When they take their hands off, their minds will stay on. At the same time participants will learn how to structure a critical thinking class with a set of classroom puzzles.

POAGE, MELVIN **TUES 10:30; CAR 10**
President, Materials & Technology for Education
A Critical Thinking Approach to Developmental Math
HIGH, COLL, ADULT, MATH

Articles continually emphasize that universities are not preparing students for a technical society. If math education is to accomplish a positive change, then teaching must improve a student's ability to "think and pro-

duce positive outcomes," to think critically. Researchers studied this problem and found some answers to improving instruction for critical thinking and problem solving.

To implement critical thinking in developmental math, it is necessary to first consider: existing curriculum, and students' ability to read mathematics. Then these questions can be addressed: 1) What is critical thinking in developmental math? 2) What changes in instruction are necessary? 3) What changes in materials are necessary? 4) How is critical thinking taught? 5) How is critical thinking evaluated?

PROUTY, JOAN LIVINGSTON TUES 1:30; STEV 3028
Associate Professor, Curriculum & Instruction/Language, Sam Houston State University
Becoming Literate: Complexities at the Close of the Twentieth Century
K-12, ADV, LANG, ASSES

Historical as well as current perspectives of becoming a reader and a writer-becoming literate-will be shared for theoretical discussion. From the work of language and literacy theorists and researchers, the strands for examining literacy at the close of the twentieth century include 1) oral language from early man to the present as a basis for becoming literate, 2) the different language experiences that children bring from various speech communities as they enter school, 3) the powerful forces of technology that change what we have previously known and expected from literate individuals, and 4) society's determination of what are appropriate educational literate behaviors and how they will be evaluated. These dynamic strands of orality, speech communities, technology, and evaluation interact in complex ways that require critical thinkers, knowledgeable in language and literacy, to draw reasonable conclusions for possible educational reform.

QUINA, JAMES TUES 3:15; STEV 3008
Associate Professor, Teacher Education/English, Wayne State University
World Views as a Basis for Curriculum Development
TACTIC/STRAT, MID/HIGH, LANG, PHIL

Commitments to basic theories of truth are uncovered through role playing tribal behavior based on Stephen Pepper's world hypotheses: formism (correspondence theory of truth), mechanism (casual adjustment), contextualism (pragmatic) and organicism (coherence). Groups are formed based on the student's commitment to truth. Each group generates its own tribal philosophy. From these philosophies, the students develop goals for teaching the language arts and design units based on these goals. The students present their units to the class. The class judges the units on their application of the criteria inherent in each world hypothesis. The presentation will include an audio tape used for role playing tribal views based on Pepper's hypotheses, a lecture discussion on how the tape was developed and used as a basis for curriculum development, video tapes of students presenting units and sample units.

REICH, K. HELMUT MON 1:30; STEV 2050
Research Associate, School of Education, University of Fribourg
From Either-Or to Both-And: Stimulation of Relational and Contextual Reasoning
GEN, INF LOGIC, INTER DISC, H CON, TACTIC/STRAT

Why do some people insist that the drug problem could be solved "easily," if only drug-fighting legislation would be made more stringent and law enforcement strengthened, while others affirm, on the contrary, that the solution lies in decriminalizing the use of 'illegal' drugs, which would then be freely available at low cost? Provided one masters "Relational and Contextual Reasoning" (RCR), critical thinking leads one to believe that an appropriate combination of these two approaches, together with others, would in all likelihood lead to better solutions. In the workshop, participants reconstruct the development of RCR by way of discussing a complex event and analyzing the answers, notably in terms of their degree of cognitive complexity. A method for stimulating RCR through exercises in differentiation, integration, and use of non-binary logic will then be demonstrated. A handout describing the (psychological) stages of RCR development and its stimulation is provided, and will be discussed.

RENWANZ-BOYLE, ANDREA SUN 3:15; CAR 20
Assistant Professor, Nursing Department, San Francisco State University
KAREN WILLIAMS
Nursing Consultant, Private Practice

SANDRA MACKAY
Professor, Nursing Department, San Francisco State University
Strategies to Integrate Critical Thinking into Undergraduate and Graduate Nursing Education
ADV, COLL, NURS, TACTIC STRAT

This session is designed to : (1) define critical thinking in nursing education; (2) describe the philosophical underpinnings and co-requisites for critical thinking in nursing; and (3) define and demonstrate selected strategies to integrate critical thinking into nursing undergraduate and graduate education. These critical thinking strategies have been successfully used by the abstract authors over a 7 year period in theoretical and clinical nursing education courses. The strategies demonstrated include: discovery learning, exploratory Socratic reasoning, concept-based psychomotor skill acquisition, and concept integration through case studies.

RICE, DON MON 3:15; STEV 2052
English Instructor/Department Chair, Chester High School
Critical Thinking: Another Way of Teaching
LANG, TACTIC/STRAT, ASSES, STAFF DEV

This presentation is based on the Critical Thinking Strategies promoted by the Critical Thinking Institute. My presentation provides the participants with a combined theoretical concept of Critical Thinking and a pragmatic demonstration of how my students think critically. I will demonstrate how I provide students with literary questions which have elements of reasoning

and whose products will be evaluated with standards of assessment. We will discuss why it is so critical to teach students to assess their own work. We will examine the expectations and the criteria used for self-evaluation. We must provide standards and expect students to strive to meet them.

ROMAIN, DIANNE SUN 1:30; CAR 20
Professor, Philosophy Department, Sonoma State University

Questioning Emotion: The Heart of Choice
H CON, INTER DISC, FEM, COLL, HIGH, ADULT

This session introduces emotion as the interplay of perceptions, imagistic thinking, interpretations, associations, judgments, bodily sensations, and motivations. It provides exercises for developing emotional awareness and reviews reasons for questioning emotions. It teaches how to use basic critical thinking skills, such as identifying insufficient support for a conclusion and identifying slanted reports, to modify questionable emotions. Finally, it explores ways to use emotions as sources of knowledge.

ROSENBERGER, JAMES TUES 1:30; STEV 2065
Greencastle Community Schools

Thinking About Reform in Teacher Evaluation and Professional Development *K-12, STAFF DEV, TACTIC/STRAT, ASSES*

For many years the process of teacher evaluation has been an attempt to drive the professional development of the teachers who are evaluated. In many cases, this evaluation has evolved into a game between teachers and administrators in which teachers adopt the behavior they think administrators want to see during the time of evaluation observations and meetings.

The purpose of this session is to promote thinking about a model of professional development which can be adopted in schools on a daily basis and how that model can be tied to evaluation methods. The session will be broken into three parts: first, a summary of the current status of evaluation and professional development, second a small group exchange of ideas toward the development of a model of professional development tied to evaluation, and third a large group exchange of models developed by small group work.

ROSS, BARBARA ANN TUES 3:15; STEV 2055
Director of Nursing Programs, IU-Purdue University, Columbus

SARAH H. BECKMAN
Associate Professor, Nursing Department, IU-Purdue University, Fort Wayne

Workshop on Teaching Undergraduate Research from a Critical Thinking Perspective *COLL, INTER-DISC, TACTIC/STRAT, NURS*

In this participatory workshop faculty from any discipline will develop an undergraduate research course based on critical thinking concepts. Teaching research to undergraduates is not a process of teaching them to do independent research. Rather, it is a process whereby students learn to be consumers

of research in their chosen field by being presented with basic research concepts and then given problem solving exercises that help them develop the skills needed to read, analyze and critique research reports. Through this process they learn to perform computer-based literature searches, review research literature, and work as a research team.

RUDERMAN, RENÉE WED 8:45; STEV 2001
Assistant Professor of English/Coord. 1st Year Prog., Metropolitan State College of Denver

Feverish and Fiery Discussions — An Experiential Demonstration Leading to Critical Thinking *TACTIC/STRAT, INTER DISC, H CON, COLL*

In this participatory session, I will encourage engagement in a feverish and fiery discussion that will move us through spontaneous emotional reactions to a valuing of dissent and differences to critical and analytical thinking about a controversial issue. This presentation focuses on the teacher/facilitators' role in classroom communication around "hot topics" which threaten order and control in academic arenas in these often difficult and angry times.

RUDINOW, JOEL TUES 10:30; LIB 1106
Lecturer, Philosophy Department, Sonoma State University

DAWN DOLAN
School of Education, Sonoma State University

A Critical Thinking Course for the Computer Age
COLL, COMP AID, TACTIC STRAT, TECH

Emerging information technologies promise much for the future of Critical Thinking instruction. The results of an ongoing experiment in the integration of information technology into the course structure and instructional strategies for Critical Thinking at Sonoma State University will be shared in this session. Participants will explore a course syllabus on the world wide web, use interactive tutorial software, conduct online research, and communicate with an instructor electronically.

SKAGGS, REBECCA SUN 1:30; STEV 2006
Professor of Greek & Philosophy, Patten College

THOMAS HART
Chairman of General Studies, Patten College

Knowledge of Things Unseen *COLL, GEN, PHIL, INTER DISC, PSYCH*

Presenters will explicate a theory and practice that applies to broad goals of education at a four-year Christian college. The theory integrates concepts of faith, learning and community. Our claim is that critical thinking is not only compatible but essential to a faith commitment as well as faith being a significant component to critical thinking. Such an argument relies on producing a synthesis of the antithetical idea involved in "either/or" religious

thinking. Thus, we shall consider theories from the humanities and social sciences as ways toward understanding a cognitive-affective model of rational thought and faith.

SMITH, LINDA Q. WED 8:45; STEV 3077
Teacher, Special Education, Sierra Middle School
The Thinking Machine: Chess in the School
 MID, TACTIC/STRAT, ELEM/MID, INTER DISC

Between the ages of 9 and 15 a student will make a transition from concrete thinking to formal operations. Chess is an excellent agent to aid in this change. We will look at how chess assists thinking and how it fits into our school curriculum. We will also look at some methods of teaching chess and examine some spectacular research and test results. Chess is more than a game; it's a powerful THINKING MACHINE.

STEELE, JOE M. SUN 10:30; STEV 3038
Director, College Outcome Measures Program, American College Testing
The Transition from School to Work: Assessing Employability Skills
 ASSES, BUS/ECON, COLL, ADULT

This session describes a new service under development by ACT to support successful transitions from high school and college into workplace and community activities. Job profiling is used to identify and define essential job tasks. Assessments have been developed or are under development for some of the most generic skill areas identified by job profiling. These include problem solving and critical thinking, communication skills, and interpersonal skills. Eight assessments, called Work Keys, are currently in use. College-level assessments, presently called Professional Work Keys, are being explored to target jobs with responsibilities for supervision and management.

STINE, DEBORAH E. SUN 1:30; CAR 30
Lecturer, Secondary & Vocational Education, California State University, San Bernardino
Teaching Critical Thinking Through Writing Across the Disciplines
 INTER DISC, TACTIC/STRAT, COLL, HIGH

Critical thought is examined from an integrative base, through the teaching of writing in multiple disciplines. Specifically, developing a critical viewpoint and thesis is explored from a textual, contextual, and reader-based stance. This presentation includes practical examples in several domains to illustrate the principle of this principle to the undergraduate and graduate classroom.

STOUT, CANDACE JESSE SUN 3:15; NICH 173
Associate Professor, Art Education, The University of Georgia
On Ponderings and Paintings: The Role of Critical Thinking in the Appreciation of Art COLL, HIGH, ARTS, TACTIC/STRAT

Based on the presenter's college-level text *Critical Thinking and Writing in Art, 1995*, this presentation focuses on the integral role that critical thinking plays in understanding and appreciating art. Through active discussion of slides of various artworks, participants will explore the variety of approaches that the presenter uses to elicit active participation and higher order thinking in her own college art appreciation courses.

STOUT, CANDACE JESSE TUES 10:30; STEV 2049
Associate Professor, Art Education, The University of Georgia

SAM D. STOUT
Professor, Department of Anthropology, University of Missouri
Multicultural Reasoning Through the Visual Arts COLL, ADV, ARTS, MUL-CULT

If students are to develop awareness, construct understanding, and grow an appreciation for the multicultural perspectives inherent in the study of the visual arts, they must develop an understanding of multilogical reasoning. Through examination of artwork from diverse ethnic groups and cultures, such as African-American, Native-American, Asian, European, Mexican, and Latin-American, participants will learn a variety of methods for generating dialogical thinking about the accord and the difference in the human experience as it is embedded in art. The approach to this workshop is dialogic. Participants can expect a lively interchange of teaching experiences, philosophies, and instructional strategies.

STREAN, WILLIAM B. SUN 10:30; CAR 20
Assistant Professor of Physical Education and Recreation, University of Alberta

How Do You Teach Critical Thinking to 200 Undergraduates (and Your Colleagues While You Are at It)? Tales from a Large Introductory Undergraduate Critical Thinking Course COLL, TACTIC/STRAT, STAFF DEV, BEG

Using presentation, discussion, and activities, participants will explore challenges of mixing student learning and staff development. The focus will be a required critical thinking course for first year students (200) in the Faculty of Physical Education and Recreation at the University of Alberta, which included thirteen tutorial sections. The intent of the structure was to provide small seminar experiences for students and to serve a staff development function for thirteen instructors. The course will be examined as a "work in progress." Lessons learned will be presented and participants will be encouraged to make suggestions for improving the course.

STUTTS, JOHN G.

Executive Officer & Assistant Professor, Biology Department, US Air Force Academy **TUES 1:30; STEV 3036**

MICHAEL R. EMERSON

Senior Military Professor of Law, US Air Force Academy

JEFF JOHNSTON

Director of Faculty Development, US Air Force Academy

Integrating Critical Thinking into the Curriculum: The United States Air Force Academy Example *COLL, STAFF DEV, TACTIC/STRAT, BEG*

Our mission is "To Develop and Inspire Air and Space Leaders with Vision for Tomorrow." To complete this mission, our faculty has adopted educational outcomes that focus on developing critical thinking abilities. Why? Tomorrow's leaders must become habitual critical thinkers if they are to effectively integrate new information, frame and resolve ill-defined problems, and communicate effectively. However, it is often difficult to change an institution's instructional emphasis from "content" to "concepts." This session will review institutional efforts to inculcate critical thinking into the curriculum and then conclude with specific examples from courses in Biology and Law.

TRUMMEL, PAUL

Professor, Independent Scholar, Technical Communication, University of Washington **MON 3:15; STEV 3072**

Socrates and Kinetography: Secondary Orality and the Rebus Principle *GEN, INTER DISC, TECH, LANG*

A dynamic form of Socratic method has evolved. Its dialectical attributes, combined with rhetorical and electronic devices, have become a dynamic, creative tool in communication that uses secondary orality and rebus (graphic) techniques. Creativity results from an inherent impulse to create new patterns by changing extant but inadequate patterns. Critical inquiry identifies these inadequate patterns through elenchus (incessant questioning). This technique allows explication by coining unambiguous, universal definitions. Generally, dialectic that coins definition creates dissonance: a conflict that results from inconsistency between beliefs and actions. Subsequently, the mind overcomes the inherent anxiety caused by the dissonance, balances beliefs with actions, and creates new patterns. Therefore, elenchus enhances comprehension through precise definition in dynamic, electronic communication.

UNRAU, NORMAN

Associate Professor, School of Education, California State University, Los Angeles **SUN 3:15; ART 108**

Talking Arguments *TACTIC/STRAT, MID/HIGH, BEG, STAFF DEV*

The purpose for this session is to explore ways to engage students in thinking through talking. I mean thinking through talking both in the sense of thinking through the functions of talk to advance an argument and in the sense of using talking strategies in the classroom to engage students in criti-

cal thinking. We'll examine samples of everyday spoken arguments to identify moves participants often make. Then I will present several talking strategies, like simulated radio talk shows and interviews, improvisations, debates, or classroom discussions, that can be used to promote the development of critical thinking and that we can practice.

VANETZIAN, ELEANOR

Associate Professor of Nursing, University of Massachusetts **SUN 10:30; NICH 173**

BARBARA CORRIGAN

Clinical Nurse Specialist, Baystate Medical Center

Improving the Critical Thinking Skills of Practicing Nurses Using Critical Incidents *NURSING, STAFF DEV, COLL, ADULT*

Critical thinking is relevant to decisions that nurses make in all areas of practice. Critical incidents are brief accounts of situations that are clearly remembered, significant events that inform future practice. Nursing personnel at all levels of a major medical center provided examples of critical incidents from their ongoing practice. This presentation describes the way in which composite descriptions were developed that became exemplars and a context for using Paul's framework to discuss reasoning that produces decisions and the actions that ensue.

WARD, BARBARA T.

Associate Professor of Communication, GMI Engineering & Management Institute **TUES 3:15; STEV 2065**

Teaching Work Related Report Writing as an Introductory Exercise in Critical Thinking *TACTIC/STRAT, INF LOGIC, HIGH, COLL*

The exercise to be presented has been taught to college freshman who subsequently have practiced successfully the critical thinking concepts and skills gained. That transfer to practical application has been accomplished in the students' cooperative education jobs and academic work. The exercise provides an experience in creating, step-by-step, a structure of reasoning in a rhetorical framework that promotes effective communication to a workplace decisionmaker and other audiences. The session will open with an explanation of the needs and demands that led to developing the report writing exercise. An audience participation activity and an open discussion period will follow.

WEBSTER, YEHUDI O.

Professor of Pan-African Studies, California State University, Los Angeles **SUN 1:30; CAR 68**

Multi-Culturalism and Critical Thinking: Compatibility or Competition? *GEN, 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. **MON 10:30; STEV 2049**
Professor of Pan-African Studies, California State University, Los Angeles

On Becoming a (Better?) Critical Thinking Instructor: The Elements of Thought GEN

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 critical 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.

WEBSTER, YEHUDI O. **MON 1:30; STEV 2049**
Professor of Pan-African Studies, California State University, Los Angeles

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

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.

WEINSTEIN, MARK **SUN 10:30; STEV 2049**
Acting Director, Institute for Critical Thinking, Montclair State University

Informal Logic As the Theory of Warrants ADV, INF LOGIC

Informal logic has been severely limited in its ability to solve basic theoretical problems due to its traditional focus on ordinary argumentation and introductory course materials. In such contexts warrants supporting arguments seem to rely either on ordinary usage or on common knowledge. The apparent sufficiency of ordinary usage and common knowledge has kept informal logicians from examining the range of warrants available within disciplined discourse. This weakens their ability to identify the images of such discipline-based warrants as they appear in everyday dialogues, making informal logic based critical thinking a less effective tool than it needs to be. For the analysis of warrant-kinds, drawn from disciplinary frameworks yields the underlying logical structures that students need to understand and think about when confronting both complex, multi-logical social issues in informed and responsible ways and contrasting modes of reasoning as they move from subject to subject within across the courses they take.

WEINSTEIN, MARK **MON 1:30; ART 108**
Acting Director, Montclair State University

A Comprehensive Approach of Instructional Planning
 HIGH, COLL, STAFF DEV, TACTIC/STRAT

This workshop will offer the theoretic framework for instructional planning within regular academic subjects, particularly in high school and post-secondary settings. The theoretic framework requires the identification of educational goals, helps faculty to identify relevant content and appropriate critical thinking skills, and addresses criteria for excellence in academic achievement.

Discussion will include strategies for employing the framework for faculty development.

WRAGG, DIXON **MON 1:30; STEV 2006**
Freelance Writer/Speaker, Resources for Independent Thinking

Critical Thinking and Social Responsibility BEG, GEN, POL, H CON

The main explicit function of an educational system is to educate people, which implies imparting critical thinking skills. Its main tacit function is to uncritically indoctrinate people with societal mores. These two functions are fundamentally in conflict, although most educators prefer to ignore that uncomfortable fact. To the extent that the world's problems are caused by existing societal mores, "education" which uncritically teaches social acceptability as a valued norm perpetuates these problems. Educators, then, have a social responsibility to replace indoctrination with real education. I'll present the basic concepts, and then we'll have a discussion.

WRAGG, DIXON TUES 3:15; STEV 2052
Freelance Writer/Speaker, Resources for Independent Thinking

Nonrational Determinants of Thinking: The Real Reasons We Believe What We Believe *BEG, GEN, SOCIO, MUL-CULT*

Most presentations of critical thinking emphasize specifically cognitive factors such as rules of logic. But nonrational (social, political, cultural, economic, geographical, emotional, and physiological) factors inform our perceptions, beliefs and values more than we like to admit. In this lecture-discussion, I'll present examples of how these factors affect our thinking, and we'll consider how to optimize our approach to teaching in light of this information.

WRAGG, DIXON MON 10:30; STEV 2052
Freelance Writer/Speaker, Resources for Independent Thinking

Sex, Shame and Society *BEG, GEN, FEM*

Often we unconsciously assume that values and beliefs which appear to be nearly universally held are reasonable. Commonly accepted values and beliefs regarding sex often engender discrimination, persecution, painful feelings, needless restriction of freedom, and other evils. I will explicate and challenge some prevailing sexual attitudes, touching on issues such as pornography, profanity, monogamy, sexual harassment, morality and freedom. Then we'll have a spirited discussion, with all viewpoints welcome. Questions to ponder: Is it desirable for educators to help create a more sex-positive society? If so, how can we do so?

WRIGHT, IAN SUN 10:30; STEV 3072
Associate Professor, Curriculum Studies, University of British Columbia

Using the Social Studies Textbook to Teach Critical Thinking: You've Got to Be Kidding *BEG, MID/HIGH, SOC STUD, TACTIC/STRAT*

The textbook is ubiquitous in classrooms and it is often regarded as an icon by students. In this workshop participants will apply several ideas to help students critically analyze their social studies textbooks using such standards as fairness, adequacy, completeness, representativeness, and relevance of the contents.

YBARRA, SILVIA SUN 3:15; STEV 2065
Principal, Wilson Middle School

JOHN HOLLINGSWORTH
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Getting Classroom Assessment Right *ASSES, MATH/SCI, SOC STUD, K-12*

This section will present a blueprint on how to develop performance assessments at the classroom level that are well-aligned with content and performance standards and higher-order thinking processes. The performance assessments that will be presented were created by teachers to match cur-

riculum and instruction and were designed to take students beyond the realm of recalling and understanding information to analyzing and synthesizing information to produce intellectual, artistic, practical, or physical products of the highest craftsmanship.

ZOLLER, URI SUN 10:30; STEV 3026
Professor of Chemistry & Science Education, Haifa University-Oranim

Teaching, Assessment and Learning of Critical Thinking in the Service of Contemporary Science Education Reform *ASSES, GEN, SCIENCE, ENV*

Critical thinking, problem solving and decision making are major issues of concern in contemporary education and science education. Similarly, teaching assessment and learning of these higher-order cognitive skills are advocated by many, but rarely actually pursued. A major purpose of science, technology and environmental education is the development of students reasoning and ability to think critically in the context of both the specific content and processes of science and the processes/interrelationships concerning societal, economical, scientific, technological and environmental issues within complex systems. The fostering of this kind of high-order cognitive skills (HOCS) is expected to enhance logical and reflective thinking which focuses on what to believe and what to do in terms of problem solving-decision making and responsible action to be followed accordingly. The crucial issue is the 'translation' of this purpose into science teaching strategies, examinations and assessment of students' performance which are consistent with the above, given the present constraints of our primary/secondary school and college/university systems.

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CANADA

ROBERT WRIGHT
Fine and Performing Arts
Napa Valley College
2277 Napa-Vallejo Highway
Napa, CA 94558

SILVIA YBARRA
Wilson Middle School
265 Albert
Exeter, CA 93621

URI ZOLLER
Science Education-Chemistry
Haifa University-Oranim
Kiryat Tivon, 36006
ISRAEL

ABOUT THE SPONSORS

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 educational 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. The Foundation seeks support for its work through tax deductible contributions. Contributions can be mailed to The Foundation For Critical Thinking, 4655 Sonoma Mountain Road, Santa Rosa, CA, 95404.



PHILOSOPHY OF THE CENTER FOR CRITICAL THINKING AND MORAL CRITIQUE

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 objective of our research, our teaching, our writing, and our critique is to reach out to students, to teachers, to administrators, to parents, to community leaders, 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 welcome your communications.

Richard Paul	Director
Linda Elder	Assistant Director
Emiko Lewis	Foundation Manager
Kristi Burrows	Conference Coordinator
Rena Ferrick	Assistant Coordinator
Crystal Tiffany	Registration Coordinator
Mette Adams	Presenter Representative
Charles Evans	Research Assistant
Peggy Bassham	Bookkeeper
Jason Smith	Assistant Bookkeeper
Garth O'Brien	Shipping Manager
Greg Downing	WWW Consultant
James Knight	Customer Service Agent

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 E-Mail: CCT@Sonoma.edu

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 Santa Rosa, CA 95404
 phone: (707) 546-4926
 fax: (707) 546-4718
 E-Mail: JOHNPRUESS@Attmail.com

STAFF DEVELOPMENT

The Center for Critical Thinking and the Foundation for Critical Thinking offer five avenues for continuing professional development:

- **Inservice** at your school or district: For one day or more we will come to your institution to offer a seminar designed to meet your individual needs.
- **Regional Workshops:** Two exciting, interactive days that focus on the design of instruction.
- **National Academy:** A five-day event for individuals who plan to mentor others in the art of bringing critical thinking into the classroom or the place of business.
- **Videotapes:** including "How to Teach for Critical Thinking," "How to Teach Through Socratic Questioning," and a variety of presentations given by conference presenters. These study courses can be used alone, with a colleague, or with a team of people.
- **Resource Materials:** In addition to videotapes, we offer several publications on critical thinking, including grade level specific handbooks.

INSERVICE

Our staff development specialists, committed to helping educators facilitate the development of student critical thinking abilities in schools, colleges, universities, can bring to your campus what we bring to educators in our regional workshops, or we will create a unique program to meet your specific needs.

Your educators will:

- Learn how critical thinking can enable students to learn in every classroom

- Explore strategies and tactics they can put to work immediately
- Discover how to engage students in the thinking you want and hold them responsible for the thinking they do
- See how and why self-assessment by students is so crucial.

Some thematic workshops we have developed by request are:

- Critical Thinking Across the Curriculum
- Socratic Questioning and Teaching Students to Question
- Intellectual Standards Across the Curriculum
- Reading and Writing as Modes of Thinking
- Remodeling Curriculum Lessons so that students are required to reason
- Self-Assessment and Critical Thinking
- The Role of Affect in Critical Thinking

Why Do It?

Critical thinking is not an isolated goal unrelated to other important goals in education. Rather it is a seminal goal which, done well, simultaneously facilitates a rainbow of other ends. It is best conceived, therefore, as the hub around which all other educational ends cluster. For example, as students learn to think more critically, they become more proficient at historical, scientific, and mathematical thinking. Their test scores and self-confidence increase. Finally, they develop skills, abilities, and values crucial to success in everyday life. All of this assumes, of course, that those who teach have a solid grounding in critical thinking and in the teaching strategies essential to it.

Make Long Term Plans

Critical thinking is foundational and, when taught well across the curriculum, has implications in virtually every dimension of education. However, critical thinking transfers only to the extent that it is taught with global transfer in mind. A superficial understanding of

critical thinking will not lead to transfer across subject areas nor to significant application in everyday life. A long-term faculty development plan is best, since instruction rarely accentuates reasoning and critical thinking, since many who teach are habituated to didactic lecture as the main mode of instruction, and since it takes considerable time to modify established teaching habits and the thinking that underlies them. It makes the most sense to think of inservice for critical thinking as generating start-up momentum which is to be followed up in some specific way later on. It is more useful to begin with a two-day than a one-day workshop, for the more substantial the initial understanding, the more likely it will result in long range change.

Critical Thinking in the Workplace

Due to rapidly changing technology, along with ever increasing complexity and interdependence, today's workplace calls for employees with the ability to think critically on the job. Yet, most employees are not equipped with the reasoning skills they must have to survive in this complex world of work. To reason well on the job means to think critically on the job. As more and more managers come to realize this, we are being increasingly called upon to provide critical thinking workshops and staff training programs for the business community, assisting executives and managers to improve their management skills through developing their own critical thinking abilities, and facilitating the development of reasoning skills of staff at various organizational levels. Call on us to prepare a staff training program to fit the unique needs of your organization.

REGIONAL WORKSHOPS

We are offering three regional workshop options next year: our standard workshop on infusing critical thinking into instruction, a Socratic workshop, and a workshop on critical thinking and the process of assessment. The standard workshop is offered at all five locations. The Socratic workshop is offered in San Diego and Atlanta. The Assessment workshop is offered in Chicago, Philadelphia, and Seattle. First-time participants may enroll either in the standard workshop or in the more specialized workshops. Many persons who have already taken our basic workshop enroll in the Socratic and Assessment workshops. All workshops run from 9:00 A.M. to 4:30 P.M. Saturday and Sunday.

You will appreciate the practicalness and the theoretical rigor that underlies these workshops. Your intellect is challenged; your practical sense is fulfilled.

In the standard workshop you learn how to teach your content as a mode of thinking (e.g., biology is taught as biological thinking; sociology as sociological thinking; art as artistic thinking.) You learn how to foster the basic criteria and standards for good thinking (clarity, precision, accuracy, relevance, depth, breadth, logicalness). You learn how to model thinking, engage students in thinking and hold students responsible for a high level of performance.

In the Socratic workshop, you learn how to teach through the systematic asking of questions. You learn how to ask questions that force students to take their thinking apart. You learn how to ask questions that force students to consider crucial standards for thinking. You learn how to ask questions that focus on both domains of thought and systems of thought.

In the workshop on the process of assessment, you learn how to use assessment effectively and how to teach students to use it. Through a better understanding of the process of assessment, you will be better able to assess: classroom design, modes of testing, standardized tests, student performances, students' reading, writing, speaking, and listening.

Regional Workshop Registration Form

Name: _____

Institution: _____

Address: Work Home _____

City, State, Zip: _____

Home Phone: _____ Work Phone _____

Fax: _____ E-Mail: _____

Regional Workshop You Would Like to Attend:

 San Diego, Feb. 22-23, Holiday Inn on the Bay Standard or Socratic **Chicago**, March 22-23, Swissotel at Illinois Center Standard or Assessment **Atlanta**, April 5-6, Ritz-Carlton Downtown Standard or Socratic **Philadelphia**, May 3-4, Holiday Inn Select Phil. Center City Standard or Assessment **Seattle**, May 17-18, Red Lion Hotel Seattle Airport Standard or Assessment

Grade Level You Teach:

 K-6 7-12 CC Univ. Admin. Other _____

Number in Group _____

 \$225 single \$195 each/group of 2-3* \$175 each/group of 4 or more*

*Group registrations must be sent in same envelope.

Make Payment to:

Foundation for Critical Thinking
4655 Sonoma Mountain Road, Santa Rosa, CA 95404
phone: (800) 833-3645, fax: (707) 546-4718

NATIONAL ACADEMY

The National Academy is an in-depth, five-day interactive seminar for educators and administrators who seek to mentor others in critical thinking in their respective departments, institutions, and districts. The Academy is designed to help you aid and mentor others in responding to students' needs:

- to self-educate,
- to reason deeply and clearly,
- to respond to change appropriately, and
- to live in community with respect and knowledge of the demands of fairmindedness, intellectual humility, empathy, and integrity.

This exciting week will be filled with self-reflection. The experience will bring you closer to an intimate knowledge of your own thinking processes, insight into the processes of your colleagues, and it will bring you practical tactics and strategies that will enable you to make a difference in the lives of your students, to be the educator that you strive to be.

We will train you to:

- teach educators tactics for creating a dynamic, critical thinking classroom,
- teach administrators how to conduct effective meetings using a critical thinking model,
- teach educators how to promote critical reading and listening skills in all aspects of their program, and
- teach educators how to lead Socratic discussions.

The format will vary. The challenges will be attuned to those with high energy and commitment. You will not only enjoy the week, but come away with renewed faith in what education can be. You will look long and hard at how you can effectively use your professional energy to do the most for those most deserving of your help.

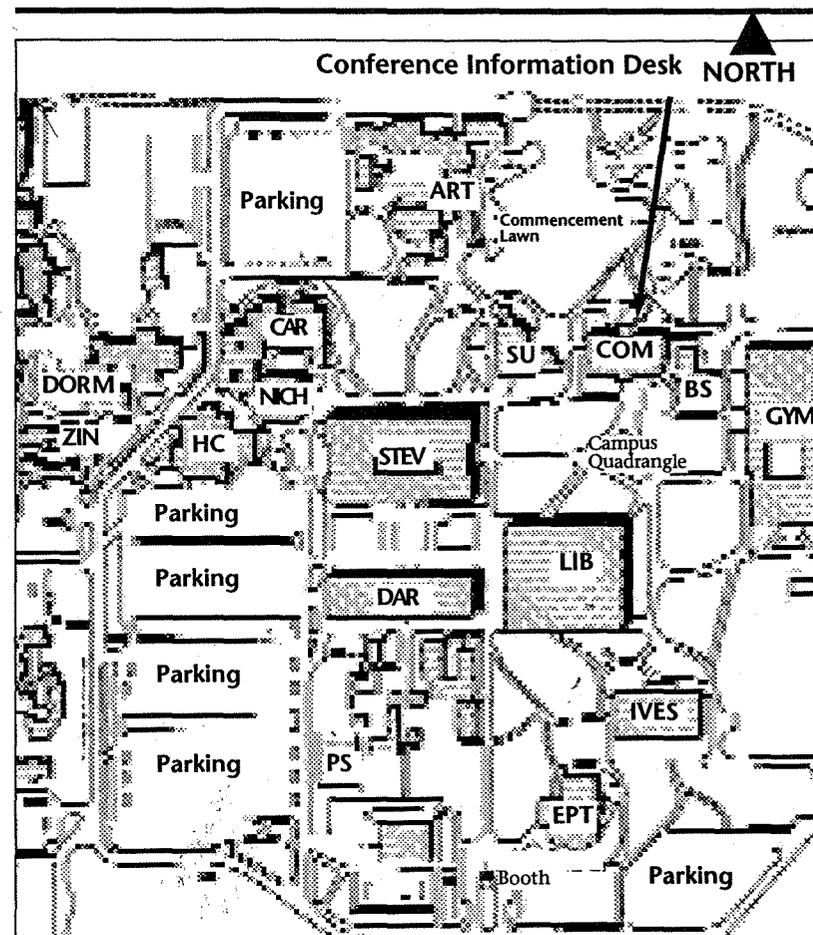
We recognize that some will come with little background. We are prepared to meet your needs, whatever your previous experience. Seminars run from 8:30 A.M. to 11:45 A.M. and 1:30 P.M. to 4:30 P.M. each day. You will be practicing teaching your peers, which will build your confidence. All participants will have the opportunity to volunteer to be videotaped while trying out new techniques, group activities, and redesigned lessons, while other participants critique your efforts.

IMPORTANT PHONE NUMBERS AND LOCATIONS

IMPORTANT PHONE NUMBERS AND LOCATIONS

*Specially-marked phones are available throughout campus.
When calling on campus, dial the last four digits only.

Service	Number*	Location
Campus Operator	664-2880	
Conference Info Desk	664-4082	COM
Shuttle Information	664-2901	COM
Housing Service Desk	644-2530	ZIN
Campus Police	664-2143	PS
Lost & Found	664-2317	
Parking Information	664-2143	
Emergency Only	664-2911	
Academic Credit	664-2394	STEV 1012
Copy Center	664-4080	SU
On-Campus Food:		
Pastries Plus		COM
Servery		COM
Barbeque		COM
Zinfandel Market		ZIN



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|------|-------------------------|------|------------------------------|
| ART | Art Complex | IVES | Ives Hall; Warren Auditorium |
| BS | Bookstore | LIB | Ruben Salazar Library |
| COM | Commons (Cafeteria) | PS | Public Safety |
| CAR | Rachel Carson Hall | NICH | Nichols Hall |
| DAR | Darwin Hall | STEV | Stevenson Hall |
| DORM | Residence Halls | SU | Student Union |
| EPT | Evert B. Person Theatre | ZIN | Zinfandel Hall |
| GYM | Gymnasium | | |
| HC | Health Center | | |