This report reviews the goals and basic organization of interdisciplinary courses and programs in California community colleges. It notes the problems and benefits of such an approach and cites five essential qualities of successful interdisciplinary teaching. The major problems of such an enterprise are: often courses are too broad; interdisciplinary mini-colleges tend to shut themselves off from the rest of the college; definition is elusive (How many credits should be granted? Is the course transferable? What requirements does the course fulfill?); enrollment requirements are difficult to determine (Must enrollment double if two teachers teach as a team?); and student-teacher rapport is threatened by too many students and more than one teacher. Although beset by these problems, such courses and programs are beneficial: they offer an alternative to the traditional survey, introductory, chronological course; they provide opportunities for new personal and group dynamics; they expose students to several disciplines at once; and they can lead students into new fields. The essential qualities of a successful enterprise are administrative support, wide publicity, elaborate preplanning, continual emphasis on the interdisciplinary nature of the course or program, and organization around a theme or problem, rather than chronologically. (DC)
INTERDISCIPLINARY STUDIES IN CALIFORNIA JUNIOR COLLEGES:
A PARTIAL VIEW

BY

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I wish to acknowledge, with thanks, the National Endowment for the Humanities for the grant which made this survey possible as part of my work on a junior college interdisciplinary course on American literature/history. Thanks are due also to those, listed in the bibliography, who contributed ideas, opinions and analyses to my article. This survey is by no means an attempt to be exhaustive and I apologize for the many good interdisciplinary programs and courses which have not been included. However, I would hope that the patterns and problems discussed here are representative of interdisciplinary courses in general.
INTERDISCIPLINARY STUDIES IN CALIFORNIA JUNIOR COLLEGES: A PARTIAL VIEW

Junior colleges can and do offer many kinds of course innovations. One recognized need in some colleges, and increasingly considered by others, is interdisciplinary, or integrated studies. A definition with which I agree is that of Daniel Bernd: the term means the merging of two disciplines; it is neither a grab-bag "general studies" course, nor is it anti-disciplinary, i.e. without any disciplinary core or structure, shedding all rudiments of existing disciplines. For example a "Contemporary Culture" course could advertise itself as an examination of society, art, science and political science in the 1970's, yet be divided into four weeks on sociology, four on art, four on science and political science respectively with no real integration of these disciplines. On the other hand, a team-taught course on "The City in the Twentieth Century" can bring the disciplines of economics, sociology and political science to bear on the problems of urbanization.

Current interdisciplinary studies are variously organized. Some are complete and separate units, providing the student's entire semester or quarter course load, like De Anza's Mini College, and Rio Hondo's Exploratory College. Others are a series of courses oriented toward an interdisciplinary major, like the American Studies Program at El Camino College. Another important category of interdisciplinary course offerings is found in team-taught courses such as "Politics and Literature: Dilemmas of Moral Choice" at De Anza; "Biology and the Humanitarian Perspective" at Rio Hondo; "Introduction to the Humanities" at Citrus College; "Creativity and the Arts" at San Bernardino Valley College; and "Women in American Culture" at El Camino College. Then, individual instructors also teach courses which are interdisciplinary in content and approach though not always so labeled, as for example, "Humanities for Careerists" at Pasadena City College and "American History Through Literature" at Fullerton College.

De Anza and Rio Hondo's programs are similar in goals and basic organization. Both colleges sponsor smaller, self-contained units, separated physically from the regular campus, in De Anza's case a separate building, in Rio Hondo's, the fourth floor of the library building. They aim, by virtue of their reduced size and informal setting, to offer more personal attention and a less fragmented learning experience to the student, and to encourage active student participation in learning and teaching. Faculty personnel remain constant and students take all course work at the separate college for one or more

semesters (or quarters). Because they are apart from the larger and more formal college organization, students and teachers enjoy the advantages of a casual atmosphere, and convenient, direct communication between proponents of various disciplines. De Anza's program is built around a single theme each year; for example, for 1975 the theme for a two-quarter sequence was "What does it mean to be human?" with sub-themes raising questions of the definition of culture, how people communicate, the nature of biological origins, and concepts of love and violence. Five teachers from Language Arts, Social Science, Physical Science and a counselor participate. Requirements fulfilled for the winter quarter were five units each for social science, natural science and humanities, with P.E. and Guidance as optional one-three units. In spite of the informal atmosphere at the Mini College, the sequence is carefully organized for the entire quarter, with divisions into large lectures, film showings, field trips and small discussion groups.

Rio Hondo's Exploratory College is equally informal and less structured. Unlike De Anza, Rio Hondo's courses are not integrated around a single theme, and student involvement in designing mini-courses or projects is actively encouraged. Courses vary from a team-taught full-semester "Issues in the Social Sciences: the Struggle toward Realness" to half-semester mini-courses like "Backpacking," "Futuristics" and "Esoteric Social Systems."

The concept of American Studies seems frequently to lead toward a core of interdisciplinary courses, or of courses within various divisions leading toward the interdisciplinary major. Varied as American Studies programs are, almost all have at least one interdisciplinary introductory course. In his 1969 survey of American Studies, Bruce Lohof found that many combine political science, history and literature into an interdisciplinary American Civilization course. However, thematic courses like Pine Manor's "American Social Thought," a study of bigotry and radical dissent, are growing. At El Camino College, students take a general three-unit "American Studies I" with special three-unit topics in American Studies like "American Folk and Popular Culture" or "The History of American Science and Technology" as the second-semester follow-up. "Intellectual History of the United States," American literature and nine electives from courses on ethnic cultures, jazz, anthropology, political problems of minorities complete the American studies major at El Camino. In this way the college's requirement for American history is filled and offerings in ethnic and minority studies


3. Lohof, p. 49.
become part of El Camino's American Studies program.

Team-teaching is another, and many argue the best, way of merging two disciplines into a truly interdisciplinary course. At Citrus College, a philosophy instructor has been in charge of an interdisciplinary two-semester "Introduction to the Humanities" (three units each semester) course for many years. Currently she and her colleague, a music teacher, are moving towards more interdependence within their course. Material is chosen for its appropriateness to the selected themes for the survey course, as well as for its intrinsic merit. The two teachers occasionally present joint lectures like "Romanticism in Philosophy and Music: Nietzsche and Wagner" and themes like Impressionism and Romanticism dominate the course.

Another long-established team-taught humanities course exists at San Bernardino Valley College. Five teachers from the disciplines of history, music and literature join to present "Interdiscipline Studies 1A-B" (three units a semester), a chronologically-organized course which consists of approximately one lecture a week on topics like "Versailles to the Guillotine" (on seventeenth and eighteenth-century France) followed by discussion groups based on lecture presentations and slides. The large lecture may be offered by one or more instructors; for instance, a half-hour lecture on the historical background to Faust will be followed by an interpretation of the work from the literature teacher. Also offered under San Bernardino Valley College's Interdiscipline Studies program is "Creativity and the Arts" (three units) taught by art and music teachers on the various "languages" (e.g., painting, drama, dance, architecture, television) of creativity.

At De Anza College, along with the Mini College program, individual eight-unit courses called "Course Combinations" are offered in the same building. Some examples are "Politics and Literature: Dilemmas of Moral Choice" (four units each English and political science) and "Politics and Pollution: Finding Personal Roles in Technological Culture" (chemistry and political science each five, speech, four units). In the "Politics and Literature" class which I observed, both teachers were present throughout the morning's three-hour session; one teacher led part of a discussion emphasizing the style of All the King's Men with the other breaking in whenever he wished to contribute. Later, after the students had first broken up into small discussion groups on corruption in government for about 45 minutes, the political science instructor took up themes of corruption and totalitarianism as presented in the political science text. Like De Anza's Mini College, the atmosphere here is casual but both the course and each class meeting are carefully organized.

Equally well-planned is "Biology and the Humanitarian Perspective" taught by philosophy and biology instructors at
Rio Hondo College. The two teachers present interpretations and reactions, reflecting his or her discipline, to Bronowski's *Ascent of Man* series (which students view in class). Each segment of the series is accompanied by handouts emphasizing issues from the film each instructor wants to question, elaborate on, or raise for class discussion. Also at Rio Hondo, team-taught mini-courses at the Exploratory College reflecting cross-disciplinary participation are "Anatomy of a Career Decision" and "Human Engineering and Human Values" the latter, taught by science and philosophy teachers, analyzing the impact of genetic discoveries on our value system.

Various courses taught by one person also reflect interdisciplinary interests. At San Bernardino Valley College, "The Consumer Perspective" on consumerism and the ethics of the marketplace (three units) gives credit in either interdisciplinary studies or sociology, and "Studies in Film Appreciation" (three units), on aspects of film making, is listed under both the art and interdisciplinary studies departments. Some of these courses may not be the real merger of disciplines that team-taught courses offer, but succeed in bringing more than one perspective to bear on a work, an era, a problem, or an activity. Two courses, at Pasadena City College, are singly taught by instructors who have previously engaged in team-teaching but for various reasons have abandoned that endeavor but not the interdisciplinary focus. "Humanities for Careerists" is a merging of philosophy, art, and literature, and organized around both broad themes like "creativity" or more specific motifs like the circle-within-the-square pattern as repeated in various world religions (and vividly illustrated with slides the day I visited the class). A poem poses a philosophical question, linking literature and philosophy, and slides demonstrate the inter-relatedness of various patterns in art and philosophy. An English course likewise blends philosophy and literature, with basic philosophical themes like the nature of good and evil and man's humanity and inhumanity introduced and then illustrated via literary works. A history instructor at Fullerton College sees the writer of fiction not only as artist but as "historical witness and imaginative interpreter," a view reflected in his "American History Through Literature course, based on such works as Rolvaag's *Giants in the Earth* ("the immigrant experience in a rural-frontier setting") and Hemingway's *The Sun Also Rises* ("the emotional and intellectual consequences of the Great War").

While all these courses are imaginative in design and generally successful, they are not problem-free. The larger, full-tire programs at De Anza and Rio Hondo have their special difficulties. And the aim of both is to offer students a small-group, confidence-building environment, disadvantages may ensue if these environments become too separated from the mainstream of campus life. The smaller entities can become isolated, and students and teachers may well end up listening only to each other and not to issues important to the entire
campus. The director of the Exploratory College at Rio Hondo senses the importance of this problem as well as potential ones from the College's excessive freedom and lack of structure. While most students seem to appreciate the increased freedom, some, especially those from more structured high schools, are uneasy. The associate dean of instruction at Foothill College, where an interdisciplinary program once flourished but has subsequently disappeared, notes as one of the causes of its demise the excessive diversification of courses in the program's later stages. One wonders therefore if the greater structure at De Anza and its closer integration of courses around one or two single themes may not offer some advantages. However, the existence of so many other variables in aims and organization of the programs, and kinds of students and student satisfaction make it impossible to come to a quick conclusion.

In the case of single courses, several teachers mentioned problems in designing an interdisciplinary course that was too broad. A single survey course called "The Study of Man" combining philosophy, literature and art may either overwhelm the student with its immense sweep, or, at the other extreme, become superficial. Better courses seem to be those with specific, stated limits, or those organized around a theme. Here proper selection of reading/viewing/listening material can help to maintain the focus of the course.

Administrative difficulties exist too. Enrollment is always of paramount importance in the familiar numbers game. Team-taught courses usually need double enrollment if the administration is to give each teacher credit for a full course. Enrollments in interdisciplinary courses have usually been high, but the scrambling for live bodies to fill up a new course can be hectic. Some teachers even end up teaching an extra 2/3 or 1/2 course load in order to keep their interdisciplinary program alive. Then, how is credit for a cross-disciplinary course to be assigned? Is it transferable? In courses like "Introduction to the Humanities" or "American Studies I" the general education requirements are easily fulfilled. But how does a school designate "The History of Science and Technology"? In some schools, the students meet twice as many hours and receive double credit, e.g., for both history and science. Others, like Rio Hondo's three-unit science/philosophy course ask the student to choose whether the credit will go to either the science or humanities requirement. Courses like these are, naturally, cross-listed. In some cases, a potential ambiguity can exist as to whether a three or four unit interdisciplinary course will actually fulfill, for example, a history or science requirement. A solution can be the listing of the course under two separate titles, e.g., "History 101" and "Biology 30" in the official class schedule; the students in these two "courses" thus meet in the same room at the same time with the two instructors who will then merge the two disciplines into their desired course.
While student response to interdisciplinary courses has been positive, problems with student identification with a teacher nevertheless arise in the larger, team-taught courses. The director of the Interdiscipline Studies program at San Bernardino Valley College believes that in their five-teacher humanities course, students are necessarily less close to the teacher and may not find a teacher with whom they feel any rapport. Small discussion groups can help to resolve this situation but there is often a chance, in these courses, that the junior college students, who frequently shy away from direct contact with instructors anyway, will find even more cause to do so. Moreover, some students are confused by the instructors' different opinions and approaches to subjects; it may require careful presentation of these multiple perspectives to enable students to realize that almost all issues and subjects do encompass more than one point of view.

Perhaps the bigger problem in interdisciplinary teaching in the single, team-taught courses is achieving cooperation and agreement on goals between two teachers from different disciplines. This difficulty has been noted in "Interdisciplinary Humanities," an article issued by the Center for the Study of Community Colleges, as well as by many teachers who have engaged in team-teaching. Some team-taught courses have been abandoned at Pasadena City College; the "Consumer Perspective," now a sociology or an interdisciplinary studies course at San Bernardino Valley College, used to be taught by an economics and sociology teacher. "Interdisciplinary Humanities" notes that many teachers may be afraid to display their own ignorance of the subject matter of the other's field. However, this difficulty doesn't seem as great, at least among those I interviewed, as getting each teacher to give up some of his or her own disciplinary attachment in order to serve the joint interdisciplinary purpose of the course. For example, a course like "Philosophical Issues in Literature and Art" is not going to be, and shouldn't be, exactly one-third English 1B, one-third Art 101 and one-third Philosophy 6A. Even if the students are getting double credit, the course is not the same as the other three courses simply glued together; otherwise it is not truly interdisciplinary. Teachers often have more difficulties than students (as noted in "Interdisciplinary Humanities") breaking away from the traditional disciplinary outlook on curricula. However, many have done it successfully and as a science teacher has remarked, if a little biology is omitted, an additional point of view is gained in a course like "Science and the Humanitarian Perspective."

4. At De Anza's Mini College, all teachers lead discussions on science, history, literature and anthropology, etc., and spend a great deal of time learning each other's field of expertise. They say one must not be afraid to say "I don't know" to a student and to refer him to the appropriate instructor within the Mini College who can answer his or her question.
Conclusions

Several significant conclusions emerge regarding the launching or continuation of interdisciplinary programs:

1) Administrative support is essential. The successful efforts at De Anza, El Camino, Rio Hondo and San Bernardino Valley College began as a result of administrative response to the desire by certain administrators or faculty for innovative courses. Administrative backing must be more than an "O.K." by the dean of instruction or curriculum committee; it entails concrete assistance like release time for faculty members designing the new courses, and provision for appropriate settings for new programs.

2) Wide publicity is helpful if not necessary to attract students to the new offerings. For example, the establishment of Foothill College's successful (albeit temporary) interdisciplinary program was the result of a series of brochures and flyers identifying the new program and attracting students to it. At El Camino College, American Studies courses are listed not only under the alphabetical heading, but also just preceding the history courses. The program's director believes this double listing has caused significant enrollment increase. Many instructors have emphasized the need for aggressive recruitment of students to new courses.

3) Elaborate pre-planning, whether for a total mini-college effort or an individual course, is essential. The results in the classroom may appear loose and unstructured but they are the fruits of careful scrutiny of material to be assigned, organization of the course to bring together two or more disciplines, recognition of themes to be developed, and division of class time by the teachers into a variety of learning activities.

4) The best courses are those where material is thoughtfully and deliberately selected to accentuate the interdisciplinary nature of the course. Instructors can use handouts of mimeographed excerpts carefully culled from longer works and selections of poetry to illustrate chosen themes; slides can often be employed too. Moreover, many works of literature, e.g. The Great Gatsby, The Invisible Man, Innocents Abroad, are already interdisciplinary in content and readily lend themselves to analysis from varying perspectives.

5) Generally, the more successful interdisciplinary courses are those organized around a theme or problem, rather than chronologically. Here the issue to be examined takes priority over introducing disciplines. These disciplines are thus introduced and employed to study a problem like facing death as at Rio Hondo College, or a subject like the American character in the 20's and 30's at El Camino College. At Fullerton College next year the total semester program taught
by history, English, psychology and biology teachers will focus on "The Search for Survival and Significance: Past, Present and Future." An interdisciplinary humanities program, "A Contemporary Curriculum in the Humanities for Community College Students," has been designed for Orange Coast College, employing the fields of music, art, literature, philosophy, and history, and organized on a thematic basis. Some themes are "Arts as Mirrors of Humanistic Concerns: Alienation, Love and Friendship" and "Continuity and Change" in literature, history and music.

Although beset with problems, interdisciplinary teaching offers advantages which clearly surmount the obstacles. Every junior college needs some alternatives to the traditional survey, introductory, chronologically-organized course. This need is voiced not only by students (evinced, for example, by students at Rio Hondo's Exploratory College, a survey at Clackamas Community College and the normally high enrollment in interdisciplinary courses around the state) but by faculty. A survey of humanities in the junior colleges is currently being directed by Florence Braver and Arthur Cohen at the Center for the Study of Community Colleges, and results of the pilot study of 127 subjects reveal a desire by faculty members for more interdisciplinary courses. In an open-ended question regarding the changes faculty would like to see in the humanities, respondents frequently requested more interdisciplinary courses, or, as in one answer "more interaction between social science and humanities." Whether faculty members are willing to undertake the work necessary to initiate interdisciplinary courses is another matter. Here administrative support is crucial.

Tying in with the experimental nature of some interdisciplinary courses is the opportunity for new personal or group dynamic situations in the classroom. Teachers have described successful endeavors in role-playing as scientist vs. humanist, idealist vs. skeptic, and this technique can be extended to the students, breaking them up into diverging groups to argue from different perspectives on an issue.

Furthermore, interdisciplinary studies can be employed to lead students into new fields, to expose them to science via philosophy or vice versa. An interdisciplinary course on urbanization at Polk Junior College led students into new areas of economics and sociology, formerly dreaded subjects. Being introduced to new disciplines via a more familiar one, students may thus be less apprehensive about certain science, social science, or humanities requirements.


6. To a statement that faculty should engage in more interdisciplinary courses, 43 agreed strongly, 52 somewhat agreed, with 19 having no opinion, 4 disagreeing somewhat and 1 strongly disagreeing.
Various junior college spokesmen have tied the value of interdisciplinary studies to the introductory nature of the junior, or community, college curricula. In the short, two-year span, we cannot possibly acquaint our students with all disciplines. But in an interdisciplinary course, a student is exposed to several disciplines at once, as in the American Civilization course. If junior colleges are supposed to provide an introductory college education, should we not back off from too-early specialization? The interdisciplinary course provides one means.

Lastly, we must consider the real aim of community college education. This aim is closely connected to our broad clientele and the college's role in continuing education throughout our students' lives. Theodore L. Gross writes:

It is becoming increasingly apparent that the great problem of the last quarter of the twentieth century, which is intimately linked with leisure time, is the problem of boredom, the inability of the individual to respond to things and people around him with real interest.... the student's future life will be sterile unless he can fill the huge mass of time that will be available to him once he has finished his ever-decreasing workaday week.... this is another way of urging interdisciplinary education.... so that he may fill his leisure time more meaningfully.

By providing in our curricula the links between history/music/philosophy/science/economics and art, perhaps we as teachers can help students to see that life need not be compartmentalized into work vs. meals vs. television vs. family vs. politics. Education is both preparation for life, and lifelong. Rigid barriers between learning and living and among the fields of learning need not exist.

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