ELECTRONIC MEDIA AND UNIVERSITY CURRICULA: A CASE STUDY OF AN ASSOCIATE DEGREE PROGRAM'S DEVELOPMENT WITHIN A RURAL TOWN COMMUNITY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of the Ohio State University

By

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ABSTRACT

This descriptive case study is an examination of the collaboration between a regional campus of a large university; representatives of the local community in which the regional campus is located; and an art education doctoral student as they planned and implemented an interdisciplinary, community-based curriculum for a new Associate Degree in Electronic Media. The overarching question of the study asks: Is it necessary to, and what would it take, to create an interdisciplinary, collaborative, art and technology program in Electronic Media within The Ohio University Regional system; specific to the community needs of the Lancaster branch campus?

Research methodology and methods consisting of case-study reviews, personal survey response, and multiple method research such as narrative and observation are used to investigate four areas contributing to the development of the Associate Degree. A descriptive analysis is used to present and analyze the data which is derived from the materials collected and reviewed.

Findings of the research indicate that incorporating community input directly into the program development process, both promotes and encourages

commitment, support, confidence, and success when designing programs to meet the needs of area businesses and employment venues. This study also suggests that collaborative experiences in teaching and administration are most successful when all members are involved in initiating the program, share a commitment to the process, and are open to the concept of shared teaching and learning.

This study suggests institutions should be more supportive and accountable in their roles in the communities in which they reside. Identification of community expectations, faculty and administrative commitment, budget confirmation and scale of the project should be primary considerations of new university program development.

Dedicated to my parents, William H. and Diana L. Steinman

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FIELDS OF STUDY

Major Field: Art Education
Other Fields: Studio Art, Curriculum, Technology & Higher Education; Visual Literacy.

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CHAPTER 1

INTRODUCTION TO THE PROBLEM

Electronically mediated applications of graphically enhanced computer processed information are increasingly used as part of the global revolution in electronics. This change has created jobs titles that did not exist a few years ago — content creators, web masters, web designers and web media professionals are only now being discussed in new publications such as *Cybercareers* (1998), located online at www.cybercareers.com. The Information Technology Association of America has estimated that 10 % of a vast number of jobs requiring information technology, including multimedia, cannot be filled because of a lack of trained personnel. A publication of The University Continuing Education Association (1999) identified multimedia as a “Hot Ticket” professional area and emphasized the growth of American and international multimedia educational programs. By implementing the proposed Electronic Media Associate Degree, Ohio University-Lancaster will provide local access to modern careers in a new and innovative area of employment. In addition to areas of general education, students completing the degree will take a variety of

courses in related fields such as art, visual communications, computer applications, journalism, public speaking, and desktop publishing. These courses have been selected to provide the necessary skills recommended by an external advisory committee representative of the Lancaster, Ohio region.

As I introduce the background of the study, I would like to note that during the development of the study I was a faculty member and employee of the Lancaster campus and viewed this study through an acknowledged biased lens. I note this to the reader so that he or she may draw their own conclusions regarding the information presented. Reinharz, (1992) states “in participatory or collaborative research the people studied make decisions about the study format and data analysis” (p. 183) and in participatory projects, “the researcher invites members of the setting to join her in creating the study” (p. 184). This approach founded on feminist research principles is intentional. Participants, including the researcher, make decisions rather than function as passive subjects. This process helps to break down the power differences between “researched” and “researcher” (p.185).

1.1 Background

During my work experience teaching for Ohio University – Lancaster (OU-L), I was given the opportunity to develop a new associate degree program that would utilize emerging technologies while still being unique to the largely agricultural community surrounding the city of Lancaster, located within Fairfield County, Ohio. The idea for an Electronic Media Associate Degree Program was

initially identified and conceived by OU-L administration and representatives from the Ohio Tech Prep Consortium seeking to meet academic needs for the regional campus' student population. Because of Ohio University's geographical location, and the location of its regional campuses, the institution serves a large Appalachian population along with other rural communities outside city limits. Targeting these specific populations was a significant factor in their decision to offer contemporary programming where other opportunities did not exist. I considered this position a challenging opportunity to learn first-hand about program and curriculum development within two divergent settings: a regional campus of a large public university and a rural community. Of great importance to me was attempting to examine the current student body and community's practices in art education with regard to the use of technology. This would be crucial to the success or failure of designing a program that would be meaningful, yet productive to graduating students who wished to pursue an art and technology oriented career in their hometown environment. Asking the community audience, what they think, feel, expect and want from their local institution of higher education was the necessary first step. The purpose of the study is to define how to put together a collaborative, interdisciplinary art and technology program unique to the city and campus of Lancaster, Ohio. Knowing and understanding its students and community, and developing a discussion on the impact of community-based practices, should better enable the regional campus to fulfill its purpose. As a result of this study, recommendations and a

draft curriculum proposal for the future new associate degree program were generated.

1.2 Location and Population of Lancaster

The target area of development for the new Electronic Media Program is the city of Lancaster, Ohio, and its surrounding subdivisions. Lancaster is located approximately thirty miles southeast of Columbus and forty miles northwest of Athens in a rural area. According to the Lancaster & Fairfield County Chamber of Commerce and the US Census Bureau, Lancaster's estimated population in 1999 was 36, 714. Its projected growth according to the 2000 Census has yet to be released at the time of writing, but between 1990 and 1999 Lancaster's population increased by 2, 144. (US Census Bureau, 2002).

1.3 Ohio University at Lancaster

> From a distance of more than half a century, it's difficult to imagine a time in which higher education in the United States was out of reach for most students. Before World War II, however, higher education was affordable only to the upper class. A revolution occurred when President Franklin D. Roosevelt signed the GI Bill in 1944, making higher education affordable for more than 2 million World War II veterans – many of them first-generation students who otherwise could not have attended colleges and universities. In order to make room for those veterans, colleges and universities whose capacities had eroded during the difficulties of the war were forced to make changes.
>
> At Ohio University, John C. Baker, in his first year as president, built upon the University's Evening Division offerings and established University "branches" in high school buildings in Portsmouth, Chillicothe, and Zanesville. Once the veterans were educated, Baker's belief in access, together with the passionate commitment of the communities in which they were located, kept the regional campuses alive.

> With additional sites established in Belmont County and Lancaster in the 1950's and the relocation of the Portsmouth "branch" to Ironton, Ohio University's regional campuses have brought educational opportunity to a wide variety of students – full time and part time, traditional and nontraditional, at levels from associate degrees to graduate studies. In fall 2000 they enrolled a total of more than 8, 000 students.
>
> Today, the achievements made possible by Regional Higher Education range from long-term statewide economic development to an employee's promotion because of updated job skills acquired at one of the regional campuses or through the distance-learning opportunities they offer. (Ohio University – Lancaster OutReach and Access Publication, 2001, p.8)

1.4 Statement of Research Questions

Under the umbrella and discussion of current community-based practices and the need for inclusion of community input with regard to these practices and curriculum development, this research investigates four areas identified below.

The overarching question of the study is: Is it necessary to, and what would it take, to create an interdisciplinary, collaborative, art and technology program in Electronic Media within The Ohio University Regional system; specific to the student and community needs of the Lancaster branch campus? Questions surrounding this primary issue consist of inquiry into four main areas: *Participation and Need for an Electronic Media Program in the Lancaster Area*. Is such a program needed by the students and community of Lancaster? Subsequent and related questions include: Can students fulfill their education and/or vocational needs through existing media programs? If they cannot, why not? What specific multimedia skills do students in the Lancaster area need?

What other schools in Ohio offer the same or a similar program? From what geographic area would participating students come? How many students would be anticipated to enroll specifically in the new program? What is the local, regional, and national demand for graduates of the proposed program?

The second area of investigation involves issues of campus and community interaction: *Collaboration of Individuals from the Community and Institution*. Why does the program need to be collaboratively and interdiciplinarily constructed and by whom? Is it important that these two concepts be interwoven throughout the process? Subsequent and related questions include: Who would the collaborating participants be? Could an Advisory Committee speak for various businesses in the community who rely on vocationally trained students? What faculty and staff members, representing other disciplines and departments, would be invited to participate in the program's development? What individual roles would these participants play?

The third area of investigation relates to the development of the new Associate Degree's curriculum as an arts and technology resource for the university, students, and community, *Curriculum Development*. How might collaboration and interdisciplinary activity play a part in course development? When designing the course content, how much of a cross-disciplinary commitment from other departments is needed? Subsequent questions include: How would collaborative and interdisciplinary course development affect the artistic and technological needs of the program? How would it affect the needs of

the students and community? How can the new program and it's course offerings help the community to learn more about electronic art forms? Do currently offered art and technology courses and/or programs respond to the community's art and technology needs?

The fourth key area of investigation is the re-examination of the mission and questions related to the role of the regional campus*, Navigating University Policy and Procedures*. After accomplishing the development of such a program and curriculum can it be successfully and expediently approved and passed through the university system? Subsequent questions include: Can Lancaster regional campus curricula and management practices meet the university and community expectations for developing contemporary and progressive program offerings? Do students, faculty, community members and administration like the current practices, types of classes, and program initiatives taking place?

Questions surrounding these primary issues have lead to examinations, discussions and a development of recommendations for these issues, and have provided a broader look at the importance of further developing these community-based practices in conjunction with university policy. The research includes results from a rural and regional business audience and community survey administered by the university which is reported and analyzed. The purpose of including the survey's results was to measure and research community opinions of what multimedia skills were identified as needed for the creation of a new Associate Degree Program in Electronic Media for the

university area. As a result of this study, recommendations and a draft curriculum for the future Electronic Media Degree Program have been generated.

1.5 Chapter Overviews

1.5.1 Literature

A review of related *Literature and Frameworks* is presented to identify and support the background and development of this project. Contexts and content of specific subject areas (such as teaching art, emerging technologies, curriculum development, and academic culture) are discussed, reviewed and compared as they represent the opinions of various experts in those fields as they relate to my study. Because of the and interdisciplinary nature and the “newness” of the “multimedia” field, the review is broad covering the most important areas which have relevance to my particular use of the technologies and subjects involved. The publications used for this research are extensive, but should not be considered definitive for ideas and discussions regarding multimedia’s development and implementation into most academic subject matters and environments are just emerging.

1.5.2 Methodology and Methods

To determine the answers to the questions within the four main investigated areas, and to discern whether or not this program would be successful, research methodology and methods consisting of case-study reviews, personal survey response (preexisting data; material from a previous study), and multiple method research such as narrative and observation have

been utilized. Substantial positive impact from current community-based individuals and businesses are reported and examined. This research was conducted in part so that the OU-L campus may better meet the needs of its students and community. Consequently, the importance of prioritizing the relationship of communities to local institutions of higher education in general becomes clear.

1.5.3 Establishing Facts and Data

To establish and present results based on the collected and interpreted material, a *Presentation and Analysis of Data* is discussed in detail. Survey responses, preparation projects, collaborative research, and observations are reported and elaborated upon to describe the events, individuals, places, and ideas that occurred throughout the project. Documentation of the group collaboration that occurred is chronicled throughout the chapter by use of a narrative story format. Through their participation, individuals such as administrators, faculty, community members, students, parents, and university staff, all contributed to the outcome of the project.

1.5.4 Conclusions, Implications, and Recommendations

Implications for the findings with respect to the program's future are presented. *Significance of the Study* defines areas of importance such *Participation and Need* and *Collaboration*. These areas are detailed with respect to business and community members, internal OU-L faculty programs, and interdisciplinary commitments. Suggestions and/or recommendations for

additions or changes to current university policy, and/or policy limitations are discussed. The potential use of this research for the development of comparable programs in rural communities is addressed. Areas for future research, such as *Additional Materials and Literature Needed* and *Changes in Academic Environment* are presented.

1.6 The Importance of Community Voices

Traditional divisions and categories of art making are now in flux. This upheaval is part of a major paradigm shift accelerated by the use of the computer in almost every medium. Not only are our most basic assumptions about the limitations of time and space being challenged but also our ideas about the function of art in society. These kinds of changes must be taken into account as art programs plan curricula, teaching objectives, and institutional goals. For the most part, today's art schools and programs are based on ideologies conceived decades, in some cases, centuries ago. They will become obsolete if they fail to deal with the needs and temperaments of a new generation of artists who have fewer allegiances to any one form of art, who are living in an electronic age, and who want to integrate social and political concerns with the making of art. Public universities are currently generating divergent programs, but nevertheless, strong similarities exist in their in their attitudes about the computer as an art making tool and the need to incorporate a multidisciplinary approach in art and education. The new digital media allows artists to participate in the profound implications of technology by consolidating various disciplines, especially those

outside traditional art concerns. Interactivity in a system offers the artist a leading role in the confluence of several movements of cultural analysis. It also allows the non-artist to become a co-creator. For example, in the Lancaster case, co-creators could now come from Computing Science or Business Technology. The artist increasingly must be aware of new issues outside traditional art. Consequently, art students are faced with numerous options in defining their participation, and for the arts faculty, one of the central responsibilities is to guide students through this process of identification, which extends beyond the traditional transmission of skills.

My study reflects the intentions and possible outcomes of the teaching methodologies in contemporary art at the university level in the area of computer technology. The information acquired from various individuals representative of students, faculty, administration and community reflect each particular group's philosophy in their approach to technology. It also provides a clearer statement of intentions, goals and opportunities open for students and faculty at the Ohio-University – Lancaster campus. These philosophies may then be shared and compared in the continuing developmental processes of teaching, curriculum development, and art production. This sharing of philosophies is important so that the academic art community may speculate and perceive which directions are being determined for future students in their maturation as visual artists. This in turn provides a direct reflection of what art and attitudes about art will be displayed and valued in our society, and more specifically in this case, the

surrounding area of Lancaster and Fairfield County. These local observations will be important when considering future issues spanning aesthetics, criticisms, and social issues. Since the electronic medium is one of the most important and revolutionary developments in the past century, it continues to redefine and reshape our thinking of what our society values in works of art. How teaching methodologies and practices play an integral role in the creation of visual works is of vital importance. It is directly reflected as visual information presented to the world from working artists.

The next chapter presents a review of the additional areas of literature related to my study. The theoretical basis of this study is rooted in the philosophy of higher education that focuses on reform in American undergraduate education. One goal of undergraduate education reform has been the integration of liberal arts education with a selected major area of study. A core curriculum that embraces both the arts and the sciences has been recommended and adopted by many universities as a means toward preparing all students for lifelong learning and active citizenship within our society. The following literary review will support the role the visual arts contribute toward this integration, and more specifically, the study is concerned with how an isolated experience on one campus is perceived by individuals as part of the technology education curriculum.

CHAPTER 2

A REVIEW OF RELATED LITERATURE & FRAMEWORKS

The fundamental issues presented in this section identify many of the discussion topics and research models that are touched upon within my case study. Their contexts and content pertain to my interest in higher education's current theories of teaching art, emerging technologies, curriculum development, and academic culture, These ideas and their relationships to community-based education, art education and local employment practices are discussed. The information presented in this chapter represents the views of experts within the fields of studio art, computer technology, education, art education, and workforce development They serve as a foundation for reflection on the experience and perceptions reported by myself, other faculty, and students interacting with technology within the perimeters of my study. Literature concerning issues associated with technology and the arts and curricula within computer mediated art is reviewed for clarification of the case study content area. A brief historical overview of the emergence of technology in the visual arts is presented as a means towards understanding the fundamental issues associated with

computers in the artist's studio and art educator's classroom as experienced in higher education. Artists', designers', art educators' and aestheticians' viewpoints are included to establish the background, depth, scope of content, and learning experiences with regard to the methodologies and procedures. Implications for art education are discussed within the context of higher education and my frame of reference towards teaching is described. Community – based art education and ideas of individual and organizational employer input and development are explored. Current ideas regarding local community employment practices, needs, economics and workforce growth are established.

2.1 Initial Developments Between Artists and Electronic Technology

Although technology has most always been a driving factor in the production of Western art, (Klingender, 1968; Wilder, 1983; Fennmore, 1996), the history of computers in the art making process is relatively short. While most art historians and researchers rely on decades, and sometimes centuries, of artists', critics' and theorist' writings, the role of contemporary technology, computer advancements in particular, can be traced back only to the mid-1960s. To our advantage, however, many early pioneers were not only actively pushing the frontiers of technology, but they were also prolific in their literacy discourse on the implications of this technology for the arts. Although the majority of the early research with computers and visual imagery were initiated by scientists, they stimulated a response from the art world and changed it forever (Goodman, 1987).

Some of these scientists had an appreciation for the arts and delighted in collaborative efforts with artists. Although many of these early creations using computer technology were linear representations of mathematical principles lacking color and aesthetic appeal, some scientists such as A. Michael Noll had a great interest in learning more about the arts. While his early work was highly technical, as his work developed he explored more aesthetic and perceptual issues in modern art (Goodman, 1990). Artist Robert Rauschenberg and physicist Billy Kluver believed collaborative efforts of artists and scientists were effectual to both the collaborators and the world of art. This conviction led to the forming of an organization called Experiments in Art and Technology (EAT). EAT promoted collaborative projects and research between artists and engineers as an interdisciplinary approach that would "benefit not only the participants but society as a whole" (Goodman, 1987, p. 29).

The development of computers and their role in the visual arts was greatly dependent on advances in the scientific community. Freeman (1989) identifies three eras in the developments of the computer as tool in the art making process. In the first era there were very few artists and many limitations. "Only a few lucky and determined artists had access to these early graphics computers. These early pioneers often had to develop the tools and program for themselves" (p. 1). Major support and access to computing centered around military and industrial research. Freeman describes the second era as one that had more artists and fewer limitation. "Applications for television, advertising, publishing and other

industries spurred development, and justified the still considerable expense of capable graphics systems" (p. 1). We are in the midst of the third era: according to Freeman (1989) there are many artists using computer technology with few limitations. "Relative to the recent past, current equipment and programs are refined, powerful, and inexpensive. There is a great range of options available at every level of application" (p. 2).

2.2 Collaborations

Although early groups such as EAT no longer concentrate on establishing collaborative efforts between artists and scientists, organizations like the National Computer Graphics Association (NCGA) and the Special Interest Group for Graphics (SIGGRAPH) of the Association for Computing Machinery (ACM) continue to grow in their multidisciplinary philosophies and memberships. Cynthia Goodman an art historian, and Kerry Freedman an art educator, have focused much of their research on computers in art over the past ten years. Goodman (1987, 1990) has compiled an in-depth historical record of artists' and scientists' works and writings concerning the developments of technology in the arts. Freedman's research (1991, 1992, 1997) has concentrated primarily on classroom applications of this technology in the K-12 arena. Goodman (1987) believes that computers are making new and unique aesthetic experiences possible and changing the ways in which art is conceived, created, and perceived. Freedman (1997) believes that while the history of computers in the visual arts is a relatively brief 30 years, its rapidly changing potential has

influenced almost every aspect of the art making process. As an example of this, one can see the changes in the role of digital technology and its acceptance when it is compared to the influence of photography in the arts. "Photography was first used to make pastiches of then-popular academic paintings. It evolved its own unique identity only when it became inexpensive enough for amateurs to get involved" (Brown, 1990, p. 197). It has only been within the past decade that photography has been accepted as a fine art. It has also been within this last decade that major changes in the technology of photography have developed. Today, with cameras that have automatic focus and light meters almost anyone can record an image on film. Goodman (1990) reminds us of recent changes that have brought about the widely available, highly interactive, and user friendly electronic paint programs. These programs now offer computer users a multitude of palette choices such as paper textures, brushes, and paint selections of 16 million colors or more. Entire compositions can be created quickly and stored separately at each state of creation. Now almost anyone who has a home computer can purchase and learn to use a program to create visual imagery. This greater accessibility is contributing to the use of technology in art departments in many of the same ways that the acceptance and integration of photography did.

2.3 Advances and Academic Interest

Little, if any contemporary research, similar to that of Goodman and Freedman, exists for study when determining the occurring changes in the art

studios of higher education today. Currently, as discussed in a previous research paper of my own *Post-modem Theory: Re-Imaging The Art Academy*, many do not agree on the role of technology in the arts and visual education (Fennmore, 1997). Some feel that artists have always used technology in their processes; however, some believe that the computer is more than just another advancement in the toolbox. Grips (1990) reminds us that tools and technologies have always been a part of making art and are not usually contemplated beyond their functional expedience. He notes that when a tool can be easily adopted into the process and addresses a widely acknowledged problem in production, then it is readily accepted. However, technologies such as the computer, which abruptly disturb the process and product, tend to cloud the issues while at the same time shedding new light on the concept of art.

Others such as Ettinger (1988), Stredney (1991), and Van Der Bogart (1990) believe that artists and educators are only beginning to explore the potential of the computer as an art medium. They believe that it is essential for artists to understand traditional fundamentals of art before incorporating the computer in their work. These fundamental skills help the artist to understand the process by which the computer creates the illusion of perspective and aids in their ability to manipulate imagery (Stredney, 1991). Ettinger and Van Der Bogart do not view the computer as a passive medium. They perceive the potential for many conceptions of art and art making processes through computer technology. "Although many artists currently use the computer to simulate traditional forms of

art such as drawing, painting, and photography, few build upon the unique communicative characteristics of this technology" (Ettinger, p. 55). Van Der Bogart (1990) considers another unique characteristic of computing in the arts: its interaction with the development of ideas. He notes that by applying traditional approaches to image analysis to computing in the arts much of the meaning of the work is lost. Unless one considers the unique ways in which computing influences our perception of reality while creating and viewing art, then we will not fully understand its role within our society.

Linehan (1985), art educator and aesthetician, is not comfortable with the concept of the computer as a simulated art tool; he believes it can be a barrier when it attempts to mimic other art processes. His concern is that, "the artist is now limited to the use of manual surrogates which are often more restrictive than their referents" (p. 2). Working with these simulated tools requires a higher level of thinking or abstraction. Electronic tools do not react in the ways artists are accustomed to in traditional media and they often become frustrated and annoyed (Freedman & Relan, 1992).

Nadin (1989) expresses a similar view concerning the influence or presence of the computer in the majority of computer arts processes. He points to graphics programs as computational models that represent knowledge about how works are created. He also sees a barrier with computer graphics programs because they often provide prefabricated general solutions to problems. However, he does recognize the unique nature of these programs and identifies

them as the "how" of art because of their ability to replicate art making processes.

Artists and art educators such as Jones (1989) and Sheridan (1990) concur with Linehan (1985) and Nadin (1989) in a call for a more reflective approach to incorporating computer technology into the art process. According to Jones, "Contemporary theory in philosophy, aesthetics and cognitive / social sciences stresses the embedment of culture and historical conventions in art and technology" (1989, p. 31). Computer technology has had such an extreme impact on our society. These artists, art educators, and aestheticians have focused on the interaction of artists with technology as a primary issue in the 20th century. Sheridan (1990) believes that "No tools are too outmoded for creative use. No tools are too new for creative use. An artist can create with any tools, but certain tools are linked to the dynamics of social and technological developments and open vistas in a special way" (p. 179). When artists and art educators incorporate technology into their art making and instructional processes, the implications go far beyond a simple addition to their collection of tools.

2.4 Approaches To Procedure For Forming A Curriculum

Since much of the initial writing and research in the field of art education is written with a K-12 audience in mind, little qualitative research in higher education exists for my continued use in the field. Another reason for limited college level teaching research is that most programs and curricula in the area of Multimedia and Emerging Technologies at the advanced level are so new,

developing only within the last few years, that many departments are still determining what they can monetarily afford to incorporate and what content may be the best fit for their institution or program. Universities and colleges throughout the world have just begun to recognize the role of computing in the art process and its potential for interdisciplinary collaboration. Artists and art educators have formed groups such as NCGA, SIGGRAPH, and the Special Interest Group on Computer Uses in Education (SIGCUE) to consider the potential roles of computer technology in visual arts education. In 1990 SIGGRAPH distributed the results of a Dream Curricula Survey with Guidelines for Curricula in Computer Graphics. In 1991, Hubbard and Greh published a progress report which defined roles that technology should fulfill in various departmental situations, and the College Art Association (1996) published its *Guidelines For Faculty Teaching In Computer-Based Media In Fine Art And Design* . These approaches to teaching technology as well as many others are currently being formed and utilized in the art studios and now what are considered art “laboratories” of higher education and are somewhat controversial (Fennmore, 1997). Issues dedicated to technology by publications within the fields of visual arts education and computer graphics have demonstrated an increase in dialogue among educators concerning the content and philosophies of incorporating technology into visual arts curricula. However, as previously mentioned, there are only limited examples of research by studio artists and art

educators addressing the impact of computer technology on the instruction and learning of visual arts in higher education.

Three qualitative studies that have been accomplished in art classrooms and studios of higher education and that have additional implications for the development and structure of fledgling programs are described below. These studies by art educators Richard Mckee, (1986); Kerry Freedman (1992); and Marsha McDevitt-Stredney, (1993), substantiate many of my own experiences on the Lancaster campus. Freedman and Relan's (1992) case study of the social dynamics and production processes of university students learning to use a paint program within an art education studio course is an important step toward understanding technology in the visual arts classroom from the students' perspective. Richard Mckee's 1986 curriculum survey of computer graphics programs being utilized within art and design programs at the university level provides a unique historical perspective since technology has so rapidly advanced since the mid-80's. McDevitt-Stredney's study provides a narrative for an individual computer course aimed at beginning freshman students interested in learning more about the introduction of computers into the visual arts. These models present a means toward understanding how the aims for education differ among art educators and how these differences might influence how and what students learn. Since the data concerning the actual social dynamics and learning of computer technology in the art classroom is limited, much of the information presented represents philosophies and perceptions from an

instructional viewpoint. Information concerning the students' point as well as the local community's is included in my study. I am concerned with the value of both faculty and students' perception in curricular research and development in higher education. The purpose of my dissertation is to investigate how multi-media production should be integrated into the Lancaster campus as an associate degree program, and how this information plays a role in the development of beginning students. Mckee's (1986) study specifically addressed graphic program integration at a time when classroom applications of technology were still somewhat restricted by issues of departmental philosophies, cost, and hardware limitations. Currently there are many competing philosophies regarding how, when and where this integration should be done (Fennmore, 1997), therefore, how and what students are learning in conjunction with what available technology they are exposed to is a major focus of the study.

2.5 Addressing Contemporary Academic Issues

Bryson, Holly and Moxey (1993), in their compilation *Visual Culture: Images and Interpretations*, present an anthology of collected works provided by fifteen lectures, which where contributed to a summer institute sponsored by the National Endowment for the Humanities. Lectures, organizers, participants, and visitors met daily for six weeks to chart, discuss, and argue over the impact of contemporary theory on the disciplines of art and art history. The participants came together from an assortment of academic departments: art history; studio arts; philosophy; history; film studies; classics; theater; anthropology; psychology,

and literary studies. Especially important to the organizers of the institute was the mix of these diverse areas; the institute was designed to encourage discussion of theoretical perspectives on the changing nature of art, imagery and its history as force capable of shaping the culture we live in. The authors Bryson, Holly and Moxey present the collection of essays as contributions to studying the history of images rather than a history of art. The ideas presented at the institute as well as in the essays, represent a new movement in the study of Humanities overall. They represent a general tendency to move away from the history of art as a record of the creation of aesthetic masterpieces (which constitute the canon of artistic excellence in the West) towards a broader understanding of their cultural significance for the historical circumstances in which they were produced, as well as their potential meaning within the context of our own historical situation. The Lancaster campus would do well to take notice of this overarching movement currently happening in the academic Humanities. Many of the new approaches to teaching interdisciplinary material are relevant to helping solve the problems that a technology and multi-media oriented department will face. The focus, now on the cultural meaning of the work rather than on its aesthetic value, will have ramifications as well as implications for how studio art and design will be taught and discussed in classrooms. Most obviously this transition means that works that have traditionally been excluded from the canon of great works (images produced for film, television or by computer for example), are now capable of receiving the same careful consideration that was once lavished upon works that

made up the canon. It also means that it is possible to approach canonical works (those said to be invested with inherent aesthetic value) with different eyes. Instead of seeking to promote and sustain the value of "great" art by limiting discussion to the circumstances of the work's production and to speculation about the extraordinary impulses that may have characterized the intentions of its makers, the shift now examines the work performed by the image in the life of culture. With this in mind, the “culture” within a small rural town such as Lancaster becomes a focal point when discussing current curricula needs.

Far from excluding a consideration of aesthetic value, the movement offers a new and different definition of aesthetics. Instead of applying a Kantian aesthetic, according to which value is an intrinsic characteristic of the work of art (one capable of being perceived by all human beings regardless their location in time and place; a recognition that depends only upon one's status as a human being) these conditions betray an awareness that the aesthetic value of a work depends on the prevailing cultural conditions and influences. They invest the work with value by means of the appreciation of its meaning both in the cultural horizon of its production and reception (Carroll, 1998). The importance of the shift from the history of art to the history of images cannot be overestimated. It means that art historians as well can no longer rely on a naturalized conception of aesthetic value to establish parameters of their disciplines. Once it is recognized that there is nothing intrinsic about such value, that it depends on what a culture brings to the work rather than on what the culture finds in it, it then

becomes necessary to find other means for defining what is part of a curriculum and what is not (Kellner, 1995; Schultze, Q. & Anker, R., 1993).

2.6 Culture Shaping Art Shaping Culture: Community Implications

2.6.1 Defining Community-Based Employment Practices and Needs

The following areas that discuss *Employment Practices & Needs*, *Art Education*, *and Workforce Development* are interrelated and interdependent depending upon individual circumstances and given times of development. For better clarification, I define each area individually as I refer to them throughout this section with respect to their unique relationships to the city of Lancaster, Ohio. In time, the events of one area could and will influence the outcome or process of another changing or altering the current outcome of this research.

Community – Based employment practices are defined as utilizing the talents, interests, and education of local human resources. These resources include any combination of community members, university students, faculty, staff, and other individual influences. Through collaboration with these human resources, decisions regarding curriculum content, training applications, and employment potential is created.

Community-based needs are defined in this paper as organized and conscious attempts to represent, reach out to, and include the values, cultures, interests, and traditions in the community. These needs reflect the attributes and environment of the working population.

2.6.2 The Role of Community-Based Employment Practices, Needs and Art Education

Each Electronic Media Associate Degree student will gain professional expertise provided through an exciting group of new art courses designed to provide specific multimedia skills. The field of Art Education has been very successful with the integration of emerging technologies to enrich and enhance individual art experiences (Becker, C.,1996; Cox, D.,1989; Daniel, V. A. H.,1090; Efland, A.,1990; Freedman, K., 1989, 1992, 1994;). Indeed, technology in many ways is integrated into the everyday life of most individuals, particularly in an employment environment. The role that art has come to play in conjunction with technology is now paramount and many education scholars have discussed visual culture's impact (Becker, C. (Ed),1994; Bryson, N., Holly, M. & Moxey, K. (Eds.),1993; Gaggi, S.,1997; Lloyd, C, & Barnhurst, K.,1994; Lovejoy, M.,1989). For example, it is obvious that visual imagery is the pre-eminent arena of contemporary mass culture to the extent that literacy appears to be declining in many affluent societies, not only perhaps because of declining educational resources but because the skill may seem less relevant to many people. Medium such as photographs therefore become an important and integral part of how society communicates on a daily basis. The role of integrating community practices and needs with the goals of art education enables a unification of the community's understanding of new media and how it will benefit and empower

them as individuals and as a group. Examples of these benefits would include: economic, education, recreation, and personal development.

Currently, no programs exist within Ohio University that duplicate the Electronic Media Associate Degree planned for OU-L. The Ohio University Bachelor of Science in Visual Communication offered at the Athens main campus is at an advanced level beyond the program offerings at Lancaster. The Ohio University Southern (OU-S), and The Ohio University Zanesville (OU-Z), campuses both currently offer similar versions of the Electronic Media Degree very successfully within their own communities, but are not within the Ohio University - Lancaster student region and would involve a substantial commute for the student. The programs at OU-S and OU-Z have existed for several years and developed independently of each other over time. Since each regional campus operates as an individual and self-sustaining campus with its own Dean, administration, faculty, and academic departments, any interaction between campuses involves a conscious effort in collaboration. The Electronic Media Degree's only common thread with the other regional EM programs at this time is the integration and use of the same emerging technologies. Issues of student population and attrition, lab and studio space, facilities, funding, and initial curriculum goals are the major existing differences. The Electronic Media Degree Program Directors from OU-S and OU-Z were invited to sit on the advisory committee for the development of the OU-L degree. They were asked to

contribute any thoughts, information, or experiences that they thought relevant to the program's initiation.

The Lancaster community and student population have not had an opportunity for associate-degree level multimedia education and training. Geographically, the closest opportunities for this type of education currently exists at Edison State Community College and Columbus State Community College. Both of these institutions offer their surrounding populations multimedia design programs; however, these institutions are not within the Lancaster service area. Enrollments at these schools have met contemporary attendance projections for electronic media education.

2.6.3 The Importance of Workforce Development

I believe that one of goals for an institution of higher education is to pursue policy that continuously improves the wealth and standard of living for its surrounding population. For this reason economic growth is a priority. Modern economic theory attributes economic growth to the interaction of four types of economic capital: natural resources, technology, human capital (skilled workers) and social capital, (social standards that are conducive to economic growth). Of these four, human and social capital is considered the most important in the new global economy (Thurow, 1996). The reason is that natural resources and technology now move around the world to where the workforce is the most conducive to increased productivity. Thus, a city or region's workforce will

determine the degree to which it participates in local, regional, national, and global economic growth.

Information technology has become the leading vehicle for change in our world. It is changing the way we learn, communicate, work, and play. It is contributing to a critical transformation of our economic life – opening the door to a “new economy” as referenced by Thurow (1996), in which brainpower, imagination and invention are the keys to success. It has created a need for knowledge workers who can meet high performance standards in technology-relevant subjects that include art and visual communication. The *Ohio Job Outlook: 1994-2005*, (a publication of the Ohio Bureau of Employment Services, Labor Market Information Division) contains statistical data forecasting a 57% increase in computer-related jobs and The Information Technology Association of America has estimated a need for at least 200,000 persons with advanced computer skills (“1998 Career Guide,” 1997).

For the city of Lancaster, success in this “new economy” will require innovative workforce development initiatives that close the gap between what students are learning in high school and what they need to know and be able to do to succeed in the workplace. It will require new kinds of partnerships that unite employers, educators, parents, and communities in a common effort to help young people chart effective pathways through advanced education into satisfying, productive careers. It is for this reason that the process of including Fairfield county and Lancaster employers on the Advisory Committee for the

design of the Electronic Media Technology Associate Degree ensures that graduates of the new program will have the advanced skills needed for the local job market. The results of the recent University survey of local employers shows a regional need for the multimedia specialty (Appendix A) and The Heart of Ohio Tech/Prep Consortium has endorsed the need for the OU-L Electronic Media Associate Degree ("Tech Talk," 2000).

2.6.4 Examples of Community-Based Employment

Various employers and members of the community were surveyed as to what jobs may be available to graduates, and what skills a potential student in Electronic Media would need to be successful in the Lancaster and Fairfield county area (See again, Appendix A). The employers and community members were representative of the types of businesses commonly found in the city of Lancaster that would need skilled employees. Returned surveys revealed that examples of businesses and potential job opportunities for OU-L Electronic Media graduates went beyond the initial implication that only computer programmers and media technicians would be needed, but instead suggested that trained middle management level positions indicative of the small local businesses with few employees were needed as well. Some suggested community-based job opportunities included: Marketing Consultant for a Media Design firm; Career Education Coordinator for a Vocational School; Public Relations Person for American Electric Power; Audio Visual Developer for a Television Station; Human Resource Manager for a Media Production

Department; and Advertising Manager for local Department Store. In addition to the survey, the Advisory Board members who were assigned to the Electronic Media associate degree identified these positions, as well as others, as positions which would need employees who were specifically trained in multimedia design skills. Some of the multimedia technology skills identified as being needed (and in many cases were needed concurrently), consisted of: Desktop Publishing, Graphic Communications, Multimedia Authoring, Web Authoring, Videographic Skills, and Computer Based Business Training Applications.

Another part of the survey questioned employers as to how many graduates they would hire from a program such as this over the next five years. Responses ranged from “none” to 10, with 1 or 2 being the most frequent numbers indicating and reflecting small local business owners.

2.6.5 Effects of Community-Based Learning and Employment

In the U.S., it is generally recognized that the existence of a significant mass of workers, technically trained at the pre-baccalaureate level, is the key factor in a business or firm’s decision to expand or relocate (Wall & Passmore, 1997). The importance of this group of workers cannot be overstated, particularly in small rural cities such as Lancaster which has limited industry to begin with. In one city’s case, a firm needed only 15 technicians to begin a major plant expansion, which would contribute immensely to the town’s economic and social capital. It could not find these technicians and did not expand. The direct and indirect economic effect was a loss of 19 million dollars per technician (Wall &

Passmore, 1997). Among economic workforce development experts (Thurow, 1996; Wall & Passmore, 1997; Gray. K. & Herr, E.,1998) in the U.S. it is generally agreed that a region that does not have a growing percentage of its non-professional workforce trained beyond the high school level will have increasing difficulty in supporting the competitiveness of high value business. With this in mind, currently the Electronic Media program at OU-L is already contributing to the development and expansion of at least three areas of Lancaster's economic capital: technology, human capital (skilled workers), and social capital, (social standards that are conducive to economic growth).

The Lancaster campus of Ohio University has received approval from the Ohio Board of Regents to submit a final proposal to offer an Associate Degree in Electronic Media. The description of this program states

> A graduate of the Electronic Media program is an entry-level technician who possesses skills for both basic and complex media applications. The degree includes courses that lead to competencies in multimedia and WEB authoring procedures, business training, videography, graphics communication and desktop publishing. Students will also have other skills including visual and data communications, computer usage, journalism, marketing, advertising, and public speaking. Experience in the workplace will be provided through internships with local companies. A graduate of the program should be well prepared to provide multimedia services for both small and large companies (returned Preliminary Approval Form & Letter / Associate Degrees, Ohio Board of Regents)

As a result of the initial proposal acceptance, the student numbers for enrollment for each quarter of preliminary advertisement have far exceeded past

the OU-L projected attendance, and overall interest in the program has grown in Lancaster. High school visitation groups scheduled to attend an information reception responded favorably to the idea of having additional visitation days including an “open house” to tour the computing facilities and talk with first year students about their experiences in the program. First year students were also invited to show and discuss their multimedia projects and work during Tech Prep and Continuing Education visitation hours. Community Advisory Board members continue to meet twice a year at a campus sponsored breakfast in order to be updated and to provide additional community input into the program’s continuing development. Many local businesses have already requested student interns to assist them in becoming current with contemporary media standards, which in turn, has provided the students with additional internship options and possibly continuing employment after graduation.

In addition to these events external to the branch campus’s inner workings, successful developments have occurred internally within OU-L itself because of this research project. Many important internal policy issues were raised, discussed, and changed as well as successful interaction and collaboration among faculty, administration and students. Academic departments, which under most circumstances would not be collaborating together or have student overlap, were in a sense forced to participate with each other because of the interdisciplinary nature of the Electronic Media degree. Given the history of academia’s tendency to isolate individual subject areas for

study, most of the immediate faculty involved were very open minded, receptive, and optimistic regarding these changes and looked forward to contemporary developments in their fields or specially areas. The atmosphere for collaboration was positive between these instructors, and while avoiding the potential for disciplinary “turf” wars, most came together to form new partnerships while developing additional curriculum and program certifications for a variety of needs. For example, the Art Department previously would not have had contact or student overlap with offerings within the Computer Science Department, nor would the Business Management Department have had interaction with the Art Department or Computer Sciences. Because of the interdisciplinary nature of the Electronic Media degree, these separate departments now have interwoven and team taught classes with faculty and students participating from all three departments. The interdisciplinary nature of the Electronic Media degree has caused students who would traditionally be isolated in one department area, to take classes under a variety of “track” choices. Classes such as Introduction to Multimedia, are team taught. In this particular class, foundation art concepts such as composition, are discussed and taught by the professor of Design while being related to introductory programming theory and networking skills taught by the professor of Computer Science. The second year course, Business Technology and Training Applications, brings together instructors from all three disciplines. Students are expected to be able to apply their basic skills of multimedia development and computer programming with concepts of business marketing

and training to form a multimedia design project for a hypothetical business situation. Students who are not enrolled in the Electronic Media program, but who are matriculated in other majors such as Computer Science or Business Management, have the option of completing an additional certification in the Electronic Media area. These students are required to take the basic foundation art and design courses offered in the first year of the Electronic Media program to complete the certification. This creates, in contrast to many Business or Computing Science associate degrees, students who will graduate and be sent out into the workforce and society that have a more developed understanding and appreciation for art and design than traditional students graduating in those fields who have not participated in such courses.

Another favorable outcome that occurred during the process of program development was the collaboration of the regional campuses with OU-L. OU-Z and OU–S as stated earlier, have had continuing successful programs similar to Lancaster's Electronic Media. Both of these programs aim at current technologies that deal with radio, broadcast, and cable. Faculty directors of both programs had long waited for an opportunity to incorporate computer technology courses that dealt specifically with web design and CD-ROM authoring to their course offerings. With the introduction of the new Associate Degree at the Lancaster campus, both of these campuses were now free to offer the additional courses as they saw fit to enhance their own programs. I and the other regional campus Electronic Media directors met frequently to design additional ways that

students could participate in multi-campus courses within the same overarching degree among campuses. This would expand our “common thread” of technologies, while integrating shared knowledge, experiences, and communication. Since each campus had technology facilities unique to their individual programs, efforts were made to ensure that students, if they chose, could utilize equipment for course credit regardless of which campus they were enrolled or in which Electronic Media degree emphasis they were participating. An example of this shared collaborative coursework and technologies would be current Broadcast students enrolled at the Southern campus could now make use of the courses and technologies offered at the Lancaster campus. Southern campus students could make use of their own campus’ in-house television studio and simultaneously tailor a broadcast related multimedia project to their degree emphasis. They could attend a Lancaster multimedia course either on-line, or via distance learning through microwave or satellite technologies, or an adjunct faculty would be invited to their campus for instructional assistance within one of their own computer laboratories in conjunction with a Broadcast course. Lancaster campus students on the other hand, also would have the option of participating in Broadcast courses in which digital technologies overlap with Multimedia courses. Lancaster students could now choose from a variety of courses that were previously only offered on the Zanesville and Southern campuses such as, Advertising Broadcast Cable Media; Radio / TV / Multimedia Workshops; Production, Planning and Writing; Introductory Television

Production; and Audio Production. Since much of the technology now used in contemporary Media development and production in general (radio, television, internet, film, video, cellular) now share software and hardware as well as developmental concepts, students will have a broader understanding of the role of technology in their field as well as how it has historically developed in a larger context throughout Media and Communications. They are experiencing first hand the building integration that many telecommunications experts, writers, and theorists have long anticipated and eluded to – the international and worldly conversion, transformation, and eventual columniation of analogue technologies to digital. This transformation in turn, creates a singular unified, interactive, multimedia-fyed platform communication(s) system, which is electronically powered and mediated by societies (Druckery, 1993; Donnelly, W. (1986); Gilder, 1990; Lloyd, C, & Barnhurst, K. (1994); B. Reeves & C. Nass, 1996; J. Stallabrass, 1996)

These positive attributes aside, it has been noted that there has been little development in the interest of encouraging students to continue forward with finishing a full bachelor degree in an overarching subject such as Art or Visual Communications at some later point in the student's career. For example, there is currently no published information as to the process of transferring associate degree credits for matriculation in such a program, or describing the long term benefits of finishing a full undergraduate degree in an advanced area. First time

students have not often returned or requested additional information and currently seem comfortable obtaining the Associate Degree level of education. Even though each student at the branch campus has access to university email and has been added to the traditional university mailing list, the number of student inquiries are still low. This may be due to the fact that they are not aware of the additional information, benefits, or process. It should be the responsibility of the branch campus to make sure this information is readily available.

In addition, a simple evaluation indicates that while a student member of the branch campus may be interested in visiting or participating in recruiting events that are sponsored by the main campus in Athens, they may not feel that these events and programs are personally or directly related to them. In this instance, the student may not be interested in returning or continuing because they have no personal connection with the university as a larger whole. Another reality is that although student interest in the immediate associate degree program has been sparked and is drawing attention to the Lancaster campus, various financial issues that affect funding for the program's technology needs and upgrades, now and in the future, are not stable. Administrative discussions continue concerning how to best fund a program that will only continue to become more expensive as contemporary technologies change and advance so quickly over short periods of time.

In a larger academic context, coordinating such an interdisciplinary program in an environment other than a small regional campus would prove

extremely challenging. Overarching bureaucracies that currently dominate academic committees and subcommittees at larger home or main campuses, such as the Athens campus, would stagnate and deter the quality and growth process of passing and running curriculum in a timely manner. Decisions finally met with approval from numerous parties and individuals would greatly conflict with the rapid changes and advances that occur in the program's technology, making any start-up advances in curriculum or instructional aids belated and outdated. Also, with the framework and hierarchy that most university's follow pertaining to teaching specific subject matters within individual departments, collaborations such as those that occurred on the Lancaster campus would be difficult. Colleges and departments on larger home campuses usually employ many instructors in a subject area with each instructor having their own individual research specialty within a discipline, whereas regional smaller campuses employ one or two instructors per subject area in general. Discussions and policy regarding college and departmental ownership of curriculum and/or individual fields of study and research specialty would ultimately occur adding to the already bloated bureaucratic process. Realizing these breaks in continuity leads to several questions in several aspects of OU-L's attempts at implementing community-based practices and it has raised issues about other areas that need to be examined outside the scope of this research.

2.7 Additional Reading and Support

Periodically, a new technology emerges that is so fundamentally different from what preceded it, that it challenges the foundations of commonly held beliefs and assumptions. The invention of photography in the 19th century is a good example of such an event. The availability of a machine-mediated form of representation posed essential questions about the nature of art. The arrival of photography in 1839 signified, on one hand, the culmination of Renaissance rational vision, and on the other, a significant rupture with any art that had been made up to that point. For the first time a work of art no longer contained a visible trace of the artist. This raised questions about traditional notions of mastery, uniqueness, and value that are still not fully resolved. Photography quickly replaced painting as the medium of popular culture. As a tool in the service of realism, it found a broad range of uses, from studio portraiture to photojournalism. But it wasn't long before photography, too, began to show signs of raising the stakes in the game of realistic representation. This can be seen in the work of Edweard Muybridge and Thomas Eakins; both of whom sought to inject the element of time into their work. Muybridge through the use of multiple sequences and Eakins through the superimposing of sequential images. Their work anticipated the later technologies of film and video. In looking at contemporary fine art photography, it is obvious that the aesthetic has borrowed extensively from the mediums that came before it. It has drawn heavily from sculpture and painting, tending towards the creation of objects that are precious,

rare, and valuable. Furthermore, the medium has adopted the modernist notions of separation and purity of mediums, and the romantic vision of the artist as creative loner. These defining traits of Fine Arts practice have been, and for the most part continue to be, the guiding philosophy in most college and university programs. In light of the following, this ideal may now change based on two considerations: 1) a radically different social / visual literacy that is displayed by younger art students creating work now, and 2) fundamental traits found in electronic image making technology. William Mitchell, in his recently published book, The Re-Configured Eye, says "we make our tools and our tools make us" (p. 59, 1994). The images we make and the images that we see shape and inflect who we are, how we think, and the kind of reality we construct as individuals and as a culture.

There are many discussions about what is happening in art, and the future direction of culture with the arrival of the computer and multimedia technologies (Lovejoy, 1989; Mitchell, 1994; Orvell, 1995; Conner, 1997). From these discussions an understanding of the cultural evolution of visual art in all its forms began to emerge for me. I found that there was no book or article that really told the philosophy behind all of the visual arts. The conclusion that I come to is that there is a cultural history and revolution for each of the different sorts of visual art forms based on prior notions of media. From a historical perspective, and according to various authors such as Lovejoy (1989), Efland (1990), Bryson, Holly & Moxey, (1993), during the 1970s many people declared the death of Fine

Art. But then in the 1980s, it was seen that Fine Art had not died but rather modernism had come to an end. The art that continued beyond modernism has been defined in post-modern contexts. These contemporary authors suggest that art has not been held together by any ideological orientation, but rather it is held together by its rejection of some of the main orientations of modernism. For example, modernism put a great deal of emphasis on style and originality. But in postmodernism this is no longer important, since style is what you use to do whatever job you want done, rather than being itself the point of doing art. In the movement that made up modernism, art was to do art, and have no other function or message. This has not continued into today's contemporary art scene. Art created in the postmodern vein, comments on life and individuals' direct experiences and is more inclusive of the public as viewers and participants. This is why the idea of community input and understanding has become so important.

Ultimately though, the ideological void and confusion that caused the "death" of modernism is not fixed. In postmodernism there is still a lack of full ideology so that many young students studying art still aren't quite sure what he or she is supposed to do. With the introduction of a media that is now interdisciplinary, I believe it becomes the job of the art or technology department and in many instances such as the Lancaster case, the community, to help students understand this. Instead of transmitters of knowledge, postmodern art faculties in higher education become more akin to expert consultants, who have two primary roles: 1) guiding students in the use of information -- gathering tools,

i.e., helping them to learn how to learn and 2) helping students imagine new ways of looking at knowledge, while prodding them to appreciate subtle complexities about disciplines not obtainable from machines and databases. These will be the only real benefits, often intangible, that teachers can add to an educational enterprise in which all information is equally accessible. Unlike the commonly heard adage that "knowledge is power," it would seem that in the future of the artist "imagination is power." (Fennmore, 1996; Freedman, 1991; Lovejoy, 1989). The following chapter introduces the methodologies and methods that I use to obtain my information and support my assertions listed above.

CHAPTER 3

DESCRIPTION OF METHODOLOGY

3.1 Qualitative Research

In this chapter I discuss the qualitative methodology I chose, along with the individually combined research methods I employed in this descriptive case study. I describe my use of descriptive case study supported through action research, techniques of narration and observation, and reflective journaling. I describe my use of collaborative inquiry complimented by techiques of interviewing and document collection. Tools used for documentation and collection include: fieldnotes, meeting memos, and campus published literature. These methods were interwoven while I investigated what community members thought about the role and mission of emerging technologies within their community work environment and human workforce. Data analysis methods and issues of generalizability related to the study are addressed.

Because of my active participation in the elements of the research process, action research was a part of the methodology that was most intensive, but with the addition of the associated techniques mentioned above, I was

afforded the opportunity to use multiple methods of inquiry. Reinharz (1992) explained, “Multiple methods work to enhance understanding both by adding layers of information and by using one type of data to validate or refine another”. (p. 201). The use of multiple methods supports a more solid data collection.

The real value of community-based practices and recommended ways of employing, improving, or discounting these methods for Ohio University – Lancaster has emerged and is described. It is important to examine methods of increasing community interest and affirm that any institution should be reflective in it’s assessment. This affirmation and assessment will then help that institution to align it’s mission and related programming while also denoting when that mission or programming needs change. The information documented here helps provide a mission statement that in turn supplies a foundation for organizational planning. It also provides a framework for establishing goals, policies and procedures. The end result defines the local institution’s values and their influence on the community. From time to time, the assessing and re-working of a mission is necessary depending upon a variety of reasons. Reasons may include, updating and revising programming to the contemporary needs of the institutions audience, or economic factors, or changes in administrative policy. This material will contribute to the re-organization of core values and goals of the program that eventually will need to be re-evaluated. I would like to structure the outcome of this study much like the case studies that Patricia Wasley (1994), uses in her book *Stirring the Chalkdust* (1994). Wasley records tales of teachers

changing classroom practices and then turns them into working documents used by educators in various settings to see whether they proved useful to practitioners contemplating or in the midst of change themselves. In all phases of the development of her cases she states that the most beneficial information comes from the collaborative effort of the students, her colleagues in schools and universities, and in the resulting policy networks created across the country (Wasley, 1994). I feel my study will be useful and beneficial in a similar manner, but in the arena of higher education. Like Wasley, I intend to look for, record, compare, and interpret these similar cultural scenes. Within these relationships I was able to identify larger themes among these domains.

3.2 Descriptive Case-Study

I chose the case study method for this research because it seemed well-suited to the reporting of an action research project. Because a case study can portray a problem in all its personal and social complexity, I thought this over-arching methodology would yield the most useful results to instructors and departments who may be searching for shared information and examples of how others are teaching technology in established programs. As a component of qualitative research, case study methodology offered me opportunities for gaining insight to all aspects of collaboration. A Modern Dictionary of Sociology Quoted by Reinharz (1992) defines case studies as the study of a particular case. “”The case may be a group, an episode, a process, a community, a society, or other unit of social life” (p.164). Case studies usually consist of a fully-

developed description of a single event, person, group, organization or community. The case study for this research centers on individuals in the Ohio University – Lancaster university community and the local community. Therefore, university and community attitudes towards developing a new technology program have been explored by investigating faculty, staff and students on the Lancaster campus as well as former students, artists, exhibitors, and partners such as schools, teachers and organizations and members from the local business community. Views on the role of a new technology associate degree, impacts on learning, and attitudes and opinions about current curriculum practices were discovered and interpreted, and the groundwork for formal community-based curriculum input was developed.

In a discussion of feminist and non-feminist case-study research, Reinharz states that researchers write them “to illustrate an idea, to explain the process of development over time, to show the limits of generalizations, to explore uncharted issues by starting with a limited case, and to pose provocative questions” (p. 167). All of these things, the community opinions, attitudes, mission and roles, impact the Electronic Media program and establishes grounds for this as a case-study. There are many different stories to be conveyed, and the fact that different case researchers tell different stories is sometimes said to indicate that case-study findings lack validity. But as Robert Stake reminds us “the Taj Mahal does look different in the moonlight” (p. 406). Different researchers have different questions to answer, different conceptualizations of

the situation, and set different boundaries for each case. Descriptive case study methodology enabled me to provide a rich description of the setting, the participants, and the social aspects that occurred within the setting. I have also borrowed and incorporated ideas from two other methodologies, Action Research, and Collabortive Inquiry, which are discussed next.

3.3 Goals: Action Research

Many methods that are employed thoughout this study are action research oriented. The goals of this type of analysis are to provide a summary of qualitative and somewhat loosely defined quantitative information about how community members may think about, use, and participate in the proposed Electronic Media program, and to prove the importance and impact of community-based practices. The process and goal of action research is one in which the participants become self-reflective and the research is collaboratively planned and implemented. According to Reinharz, “ In participatory projects, the researcher invites members of the setting to join her in creating the study” (p. 184). Practices are addressed which speak to, involve and are about the place that is community. An in-depth investigation of these issues is essential for the discussion and implementation of future policy and curricula planning within this organization and to comment on the need for community-based practices in all art studios and classrooms. Through the reflective process, the participants and researcher (myself in this instance), involved in the inquiry are constantly revising and reconsidering the nature of the problem and actions that occur throughout

the research. The primary element of action research contained in this study is that the participants in the study (the business and local community members, students, administration, and myself) were all active participants in the study. We planned the program, and held brief weekly meetings where we discussed our actions throughout the program's development. We revised our plans and documentation for the future based on our experiences. In journal writing, many were reflective about our participation in the collaboration. At group meetings we discussed our individual preferences and perceptions of the program as it progressed. Functioning in the capacity of a team, decisions concerning the curriculum and planned programming were implemented.

3.3.1 Narrative & Observation

According to Spradley, (1980), many observation techniques are accompanied by participation. "Participation allows you to experience activities directly, to get the feel of what the events are like, and to record your own perceptions" (p. 51). Janesick, (1994), compares narrative to a choreographer, in which the researcher must find the most effective way to tell a story and convince an audience. She states: "Staying close to the data is the most powerful means of telling the story" (p. 215). I was originally hired by Ohio – University Lancaster to take responsibility for the development and direction of the fledging Electronic Media proposal. Acting in this capacity, as a participant, I quickly realized I was in a unique position to record my observations and "stay close" to my data as the project progressed.

As Director of the project, my goals were to incorporate into the existing associate degree idea, concepts of what the local community felt was important. Along the way, people initiated conversations with me ranging from their opinion of current technology and art, to their definitions of art in general; telling me about art they grew up with, art that was found in their homes, contemporary art that they have seen today and whether they like it or not; think it's successful or not. All of these experiences affected them. Assimilating these experiences has enabled me to engage in a growing understanding of the Lancaster audience and community. These exchanges of stories and information, have allowed me to comprehend group concerns, attitudes, and thoughts for the program, long before the survey and proposal was initiated and designed. The conversations came to assist me in the creation of the questions that were proposed on the survey and also assisted me in the interpretation of the results. Methods for data collection and analysis include this type of narrative and observation reporting, as well as the columniation of responses from the returned survey. I used multiple methods to record details in many aspects of the collaboration. I recorded information through the use of fieldnotes, interviews, and document collection. Fieldnotes were taken during observations of planning and presenting curriculum and also from a variety of administrative meetings. They included a description of the participation levels of the attending members and myself. Most interviews were nonstructured and informal to create a casual environment for the participating community members. They were recorded as fieldnote methods.

Document collection consisted of reflective journals written primarily by myself and other administration and/or faculty members; samples of the implemented lessons, and student work examples. Written descriptions of curriculum considerations and digitized images of the projects the students created enhanced the description of the study. While collecting the data, it was necessary for me to consistently examine the data to become aware of my own voice in the recording and reiteration of the data. This was especially important as to note the biases I may have had towards the nature of the study.

As the Program Director, I had been significantly involved with the workings of proposal development and its relationship with the business community and Lancaster audience. I had engaged in constant discussion over a period of time with numerous individuals all representative of each participating group such as faculty, staff, students, administrators, business and community members as well as teachers and artists. These conversations between myself and these individuals along with the observations I have made while working and teaching at OU-L have been referenced to develop contexts, and to clarify data for this study. This recollection of narrative and observation acts as a type of ethnographic research as opinions, reactions, and experiences are measured and recorded. The information acquired from each conversation reflects each particular person's philosophy in his or her approach to technology. It provides a clearer statement of intentions, goals and opportunities open for students and faculty during the programs initial development. These philosophies are then

shared and compared in the continuing developmental processes of teaching, curriculum development, and art production. This sharing of philosophies is important so that the academic art community may speculate and perceive which directions are being determined for future students in their maturation as visual artists. This in turn provides a direct reflection of what art and attitudes about art will be displayed and valued in our society. These observations are also important when considering future issues spanning aesthetics, criticisms, and social issues. Since the electronic medium is one of the most important and revolutionary developments in the past century, it continues to redefine and reshape our thinking of what our society values in works of art. How teaching methodologies and practices play an integral role in the creation of visual works is of vital importance. It is directly reflected as visual information presented to the world from working artists.

3.3.2 Reflective Journaling

I incorporated journal writing into my own notetaking early on in the development process as a way of keeping track of conversations, meeting minutes, and/or dates, times, names and phone numbers that were important. Most notably, most faculty or administrative staff attending our group meetings did so as well. Many individuals kept monthly reports and throughout my data collection process, these field reports became a way to examine systematically where I was in the process, and where I should go next. An example of reflective journaling in this manner is presented by Kemmis and McTaggart, (1988) and

McCutchenson (1995). They discuss the need for teachers to become reflective about their practices when making curriculum decisions. According to Kemmis & McTaggart, 1988, the process of reflection is action oriented if it seeks to make meaning of a social situation or to revise plans, or descriptive if “it allows reconnaissance, building a more vivid picture of life and working the situation, constraints on action and more importantly, of what might now be possible, for the group, and for its individual members as actors committed to group goals” (p.14). In reflecting on the both the research process and the data collection, I developed new questions, new hunches, and sometimes a new way to approach the research problem as a whole. These reports also provided a way to communicate the research progress other administrative officials and individuals not directly involved in the program’s development. Keeping them informed of what and how we were doing, gave them a chance for input along the way.

As a result of our collaborative process, we would share this written journaled information among ourselves as a way of correlating or analyzing our progress. This method of document collection allowed us opportunities to become reflective about our practices, discussing what we saw, how we felt during the process of the program development, and our personal opinions concerning the collaborative process. Journals afforded me the opportunity to gain access to thoughts that my peers may not have orally conveyed to me. I found that journal writing provided me with additional benefits that I originally did not start out expecting. These included the writing as a resource for self-review,

an introduction of new ideas to explore, making connections between concepts, and revising program ideas. This writing provided insight into my personal belief as well as the others involved and it documented how and/or why changes or progress occurred. The journaling process also enhanced my understanding of the process the participants underwent as they worked together and provided me with the recognition of certain biases I had previously held during my data collection. It was particularly important to capture these analytic thoughts when they occurred. I also kept a small battery-operated tape recorder in my car so to record my memos and thoughts as field log entries. These recordings could later be linked across my data to be used later within the analytic files

3.4 Collaborative Inquiry

All the participants of this study were involved in collaborative inquiry – learning and reflecting together. The collaboration among individuals as well as groups grew as we worked together revising, replanning, envisioning, and preparing for the final product. We all shared an active role in many areas. In many ways, all those involved in the research functioned in the capacity of co-researchers; thinking and decision making contribute to generating ideas, designing and managing projects, drawing conclusions from the experience and also by functioning as co-subjects by participating in the activity that is being researched. According to Reason (1994), participant examination of the same experiences gives greater validity to research. The reflective journal notes, interviews, and group meetings held throughout the program's development

afforded me the opportunity to become aware of the multiple visions of the same situation. Multiple perspectives and concepts gave me different interpretations of collaboration and of the structuring of the program.

3.4.1 Interviews

I found the interview to be an important part of my data collection. Although informal, I was able to make a personal connection with most individuals I spoke with. The process allowed me to create a connection between myself, the students and / or the community member. Reinharz (1992) stated, “Interviewing offers researchers access to people’s ideas, thoughts, and memories in their own words rather than in the words of the researcher” (p. 19). This allows the participants their own voice in the research and personal contributions to it. Interviewing also provided me with insights into collaboration, which had not occurred to me. Glesne and Peshkin (1992) describe three major types of interviews (p. 92) of which I chose to use two; (A), an “open interview”, where I was prepared to follow the discussion and the leads that arose unexpectedly and (B), depth probing, wherein I asked questions that required the interviewees to provide more information about what had previously been observed.

Spradley (1980), defined a formal interview as one that “usually occurs at an appointed time and results from a specific request to hold the interview” (p. 124). I initially planned to incorporate formal interviews into the process, but with the amount individuals involved, it was difficult in getting appointed times

and dates. Many students could not or would not attend a scheduled date due to a variety of reasons. It was more convenient and spontaneous to ask for a few minutes of an individual's time either before or after a meeting, and many times due to the informality I felt their responses were more sincere. Questions were open-ended to provide the informants the opportunity to become reflective. With the lack of formal questions during this stage, a questionnaire/survey was developed to anonymously ask, specific questions of business community members. The returned responses were then compared to the recorded conversations when evaluating or searching for answers. The informal interviews were done consistently throughout the study. The intensity and duration of each of these interviews was dictated by the participants. These informal conversations clarified what I observed during collaborations with other individuals and groups.In all situations where I had verbal communication with a participant, I made the following observations: I described the space and how it was used, the elements particular to the setting, especially a meeting place or classroom in order to establish a sense of place. I tried to recreate the physical environment in a descriptive language which would allow the reader to visualize the setting. These descriptions were not limited to the physical setting. Close recording of the social environment and the interactions of the participants were included to provide an understanding and sense of collaboration. I noted the way in which people organized themselves, communicated with each other, and interacted with each other.

3.4.2 Document Collection

The Division of Continuing Education through the Lancaster campus photographed much of the laboratory, student activities, faculty and staff as they worked together. These photographs will be used later, by the university in the marketing and information pamphlets and mailers they will be sending out to potential students when advertising the program. I suggested which laboratories and students reflected the most progress with the program's development so that the photographs would reflect our commitment to the community. In addition to the photographs, student advisory sheets were developed to assist students in the courses they would need and in what order they would need to pursue them. This guide was accompanied by the course description bulletin which would describe any prerequisites needed by the student. Marketing and Advertising materials for the program also reflected the community oriented tone of the new program. In addition to these printed materials, the returned university survey questionnaires from community business members were documented as a way to provide me with concrete data for the analysis of the program's development. It also gave me the opportunity to review reactions that I may have previously missed.

Additional documentation used for reference consisted of printed guides and examples of curriculum programming from other universities and community colleges that are currently running degree programs similar to what OU-L would like to successfully instigate These materials describe existing collaborative

programs and courses from technical colleges and institutes that are associate degree oriented (Appendix B). Publication materials printed by the Ohio Department of Education and the Ohio Board of Regents which document the changes in their approach to teaching technology and its importance to workforce development; these training initiatives will be required to fulfill the new academic technology requirements set forth by these groups (Appendix C). Printed and published documentation provided by various organizations such as the Heart of Ohio Tech Prep Consortium whose mission is to prepare and support high school students for careers in high technology requiring a two-year or four year college degree (Appendix D). Student artworks, written papers and old assignments that were created in an experimental Special Topics course were also used as reference materials. These works provided additional insights as to how a collaborative course (such as the ones being researched) might run within a track of currently scheduled and approved degree courses in other areas. Documents particular to the city of Lancaster and its community included the local town newspaper, institutional news letters, archives from the town's library and old letters, and meeting minutes prior to my employment there.

3.5 Data Analysis

According to Glesne & Peshkin (1992), data analysis involves organizing what you have seen, heard, and read so that you can make sense of what you have learned. Working with the data, you create explanations, pose hypotheses, develop theories, and link your story to other stories (p. 127). To do this I have

categorized, synthesized, and searched for patterns that interpret the data I collected. I simultaneously performed my analysis along with the data collection so that it enabled me to focus and shape the study as it progressed. I constantly reflected on my data, while working and organizing to try to discover what it had to tell me. I wrote memos to myself, developed analytical files, applied rudimentary coding, and wrote monthly reports to help myself learn from and manage the information I received. After each day of my own participant observation, I took time for reflective and analytic note taking. During this time I wrote down my feelings, worked out problems, jotted down ideas and impressions, clarified earlier interpretations, speculated about what was happening, and generated flexible short and long term plans for the days to come. During the writing process these notes became important when I was identifying problems, developing questions, and understanding the patterns and themes in my work. To begin my study, I framed my study with this information as to provide the necessary context, background, and conceptualization. As it came to a closure, I concluded by summarizing and by explicating the meanings that I have drawn from my data as it befits the point of my work and the program's development.

In a descriptive case-study, it is important to develop an in-depth understanding of the participants and the case being studied. Patton (1990) maintained, "What is important is understanding the people being studied. Concepts are never a substitute for direct experience with descriptive data" (p.

392). My analysis of data included studying the stories of collaboration told by my peers, community members, and students in their own voices. My data display also included visual representations such as handdrawn graphs, flowcharts, and diagrams. This accompanying visual information helped to assist me in making meaning of my data. It was an important part of developing my beginning study. It was also very insightful during the data collection and the actual analysis of my study and is part of the final presentation. Miles and Huberman (1984) described data display as organizing the information in a manner that visually shows what one knows and that assists in providing a format for future collection. I relied heavily on an ethnographic approach to data analysis, thus the final analysis of the data includes a descriptive written account of observations and interviews, work samples by students, and data displays. I referred to Spradley's (1980) technique for participant observations when producing the written account of the case study. I also discovered that the writing process actually is an important part of the analysis. Many of my insights and much of the understanding I gained from my research data came through the writing process. For me, writing is the final organization of my thoughts and to separate the process by two or three months didn't work for me.

3.6 Generalizability

Lincoln & Guba (1985), Wolcott (1990), Donnmoyer (1990), Denzin & Lincoln (1994), among others, agree that to an extent, traditional ways of thinking about generalizability are inadequate for qualitative researchers. They do not

eschew generalizability altogether, however, but feel the needs of researchers in education and human services are not met by that outcome. According to Denzin & Lincoln (1994), “The traditional view of generalizability limits the ability of the researcher to reconceptualize the role of social science in education and human services” (p. 217). Lincoln and Guba (1985), use the term transferability which is applicable to case study. According to them, transferability is reliant on context. The degree of what is transferable is a direct function of the similarity between two contexts. The conception also suggest that there must be congruent contexts before a case study can suggest similarities. Assimilation, integration, accommodation, and differentiation provide a different way of viewing generalizability. Donmoyer (1990) maintains that in a well-narrated case study, the reader would be exposed to different situations and unique circumstances that help them to look at things in a new way.

My study is a descriptive story of collaborative inquiry and participant input and learning that occurred in a specific situation; however, it can serve as a future model for other investigative studies of this nature. This case study will enhance understanding(s) of collaboration, curriculum development and revision, and community input while encouraging future studies. I conclude this chapter with the understanding that qualitative inquirers look to understand the specific, and not necessarily the general, both to understand it in particular and to understand something of the world in general. The respondent pool in qualitative research is too limited for development of generalizations. The particular case

that I have studied will contribute to an understanding of similar cases. I hope my description and analysis in its complexity will identify concepts not previously seen or fully appreciated before this time.

The following chapter will describe my analysis of the data that I collected and present the story as it evolved. It provides findings and implications of the participant responces as well as any assumptions that occurred through out the process.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

This chapter contains a descriptive analysis of the collaborative efforts between the primary participants of this study to plan and implement an art and technology integrated curriculum for an Associate Degree in Electronic Media at a rural university branch campus. This analysis was derived from data obtained through survey results, participant observations, informal interviews with various business and community members, other branch campus faculty members, students, and staff members. Copies of the developed curriculum “track” and lesson supplements are included to enhance reader understanding of the new course integration that was introduced. The results, a preliminary program, which was sent to the Ohio Board of Regents (OBR) for approval, is used to support and analyze the data. The preliminary program is currently running under “special topics” courses, as well as “experimental courses” until completely and officially approved by the Ohio Board of Regents. As of this writing, course titles and/or content are subject to change per acceptance of the official curriculum through OBR. The chapter documents the collaborative process beginning with

the development of the needs assessment survey through the final approval process. The survey, designed collectively with members of the university, was distributed throughout the Lancaster and Fairfield county community to measure opinions on the development of a new media program. Questions regarding their thoughts on student/community interest, contemporary media skills, and employer needs were solicited and are described below in the following section.

4.1 The Associate Degree Program

In working for Ohio University – Lancaster (OU-L) over a three year period, I collaborated with various members of the Lancaster community and campus to plan and implement an art and technology integrated curriculum for a new associate degree, which the branch campus proposed to offer. Students completing the degree take a variety of courses in related fields such as visual communications, computer applications, journalism, public speaking, and desktop publishing. These courses have been selected to provide the necessary skills recommended by the external advisory committee (myself and participants). In the area of general education, students are required to take courses in English composition, general education sequence, social sciences, and beginning art. Through this degree, which has been collaboratively developed by interdisciplinary individuals such as faculty and community members, the Electronic Media Associate Degree student will gain professional expertise provided through an exciting group of new courses designed to provide specific multimedia skills while graduating with an Associate in Applied Science.

For instance, Electronic Media 101 introduces the student to the professional field and provides the first use of a wide variety of media. Two courses dealing with the concepts of multimedia and web authoring provide additional specialized skills. The student then progresses into courses such as Advanced Video Production, followed by Digital Media, Visual Communication and Business Technology Training Applications. The last professional course required for the degree is the externship experience of actually being in a multimedia worksite. Instructor planning, collaborative teaching methods, student discussions and art activities were all important components to the development of these courses. Curriculum design and the implications for interdisciplinary content were of primary importance to the success of the program.

4.2 Preparation and Projections

4.2.1 Survey

I was very excited to begin work on such an expansive project. During an advisory breakfast meeting, I was introduced to the community business members of the Advisory Committee by the Associate Dean of the campus. The Advisory Committee was made up of 7 local business owners, managers, and community members that had already been selected by the Associate Dean. Other Advisory members included, 2 Electronic Media Program Directors from other regional campuses, 3 internal OU-L faculty members in related disciplines such as Art, Computer Science, and Business Management Technology, a Tech Prep Representative, and OU-L's Director of Computing Services. I was invited

to enlist any other members of the community that I felt were important to the program's development. During our first meeting, I discussed with the committee the need for such a program in the Lancaster area and how to go about confirming that need. A survey of questions for the area businesses had been drafted by the committee before my hiring (Appendix A). They asked me to review the questions and contribute to the survey with ideas or additional questions I thought necessary. OU-L administration would conduct the survey within the

OU-L service area by direct mail. Questions on the survey were aimed at businesses in the community so that input from potential employers could be addressed. Questions on the survey addressed issues of business and student interest in the program, compensation for hired technicians, areas of training and/or skills within the businesses themselves, as well as their thoughts on the most important skills students should acquire while in the program.

The results of the survey, (Appendix A), helped confirm the need for the program. The Survey Tally Sheet reflects the answers that that were returned by community members. Answers listed show support for the need by expressing that businesses would be interested in hiring individuals with an associate degree in this field. Out of 44 returned survey questionnaires, 25 individuals answered yes to that particular question. 30 individuals thought that there would be potential student interest in the program degree, and 37 people thought that a degreed electronic media technician would merit better compensation than an

individual who did not have those qualifications. Community members were also asked, in their opinion, what were the most important skills they prefer a technician to possess. Answers include not only ideas of desktop publishing and real world technology applications, but traditional and solid backgrounds in areas of English, reading, composition and speech; basic mathematics; personal motivation and organizational skills; and a solid work ethic. Community response also indicates that over the next five years, they are likely to hired between 1 and 2 individuals that possessed these skills.

4.2.2 Additional Research

During this initial planning period, the committee thought that many of the courses needed for the degree would already be offered at OU-L, especially in the computer-related areas. Committee members investigated and reviewed current course offerings before suggesting development of new courses. New course development focused on the professional core of the multimedia concentration. It was also decided during this meeting that in addition to one new faculty member (myself) other such commitments needed to be addressed. These included the expenses of facilities renovation and the purchase of new equipment. Since most of our initial discussion centered on the need for the program, many questions were raised with respect to any existing statistical documentation. We agreed that each member would research answers to several questions that would help define our basis and starting point of development. These questions, (which are not included in the survey), include

such important issues as: 1. What is the local, regional, and national demand for graduates of the proposed program and, is there currently any statistical documentation to rely on?; 2. What other schools in Ohio, if any, offer the same or similar programming? What has happened to enrollments at those schools in recent years?; 3. Are there any Ohio University programs that come close to duplicating our proposed program? If there are, can students fulfill their education and/or vocational needs through existing programs?; 4. From what geographic area would we anticipate students being drawn from? In the case of off-campus technical programs, what are the levels and trends in high school enrollments in the service area?; and 5. How many students did we anticipate to enroll in the program in each of its first four years?

4.2.3 Establishing Direction

Answers to these questions took several weeks to find, and meeting discussions revolved around the incoming information. One business community member provided documentation from The Ohio Job Outlook: 1994-2005 (Ohio Bureau of Employment Services Labor Market Information Division [OBESLMD], 1993). This document contained statistical data forecasting a 57% increase in computer related jobs. Another business community member reported that The Information Technology Association of America estimated a need for at least 200,000 persons with advanced computer skills (“20 Hot Tracks”, 1997). The process of including these employers on the Advisory committee for the design of the Electronic Media Technology degree helped to ensured that graduates of the

new program were obtaining contemporary advanced skills needed for the current job market. These business community members were “experts” in their fields contributing to the development process. Two faculty members presented the results of the OU-L survey of local employers to show a regional need for the multimedia specialty, and a representative from The Heart of Ohio Tech/Prep Consortium responded with information pertaining to the level of local high school and vocational programming expected from colleges that participate in their programs.

Over the next several meetings I presented information on two colleges that were similar in size and student population to OU-L. These colleges, Edison State Community College and Columbus State Community College currently offer multimedia programs similar to what OU-L was proposing, however, these institutions are not within the Ohio University – Lancaster service area. I included information on enrollment from both institutions since they met the projections for electronic media education. Both colleges had similar information regarding their program’s content and courses available through traditional mail or posted on their Web sites. Both colleges provided an overview statement of what they considered the Multimedia Production Industry to be and how it is defined by today’s standards. Individuals interested in the Columbus State program were provided with two plans of study, 1) a Computer Graphics Track and 2) an Authoring Track along with a prerequisite list and sequences for first quarter classes. I had the opportunity to discuss the Columbus State program’s

development with its coordinator. I found the differences in start-up development to be many; included were issues of goals, rational and curriculum content; target student populations; advisory committee members; shorter administrative procedures, and sources of funding. It was evident from my discussion with him that this institution's design for over all program implementation was completely different than OU-L's even though in many ways the goals were the same.

A staff member, Director of Computing Services for the branch campus, provided information pertaining to duplicate programs within the university system as a whole. No programs within Ohio University duplicated the proposed Electronic Media Associate Degree. The Ohio University Bachelor of Science in Visual Communication is at an advanced level beyond the program at Lancaster. Ohio University Southern and Zanesville Campuses both currently offer a version of this degree very successfully, but are not within the OU-L service area and would involve a substantial commute by the student. It was concluded that Ohio University – Lancaster students currently had no opportunity for associate degree level multimedia education.

Information regarding enrollment and class projections was provided by OU-L's office of Student Services. It was determined that the majority of students enrolling in the program would be from the Ohio University – Lancaster service area, which is primarily Fairfield and Hocking counties. Because of OU-L's membership in the Heart of Ohio Tech/Prep Consortium (Central Ohio), and the established Tech Prep pathways, the program would also draw a few students

from outside the immediate service area; to the south and east. Schools included: Amanda-Clearcreek, Berne Union, Bloom Carrol, Fairfield Union, Lancaster, Liberty Union, Pickerington, and Walnut Township. The projection for a beginning class cohort was estimated between 20-25 students with classes of 30 students entering each new academic year thereafter. It is expected that the majority of Electronic Media Associate Degree students would be new to Ohio University – Lancaster.

4.3 Collaboration

The complexities of the collaboration between myself, members of the advisory group, administration (both on and off campus), community members, and faculty are illustrated by issues that emerged for us as participants during this study. Because of these issues, I found myself personally interacting differently with each group. These issues, which are reiterated and discussed by Reinharz (1992) include: defining individual roles; willingness in accepting new responsibilities; re-adjusting territorial domains to accommodate the idea of interdisciplinary work; and defining the mission of the new program in general. This collaborative experience encouraged the individuals involved to share professional experience and teaching roles with each other while working together to plan a new curriculum. In this section I do not describe and define my collaborative interactions with each group separately for as a collaborative experience, my development and interactive process with them overlapped and often happened at the same time. In this section I discuss specific examples of

collaborative happenings that defined the nature of my working relationship with that particular group or individual. For instance, at the onset of the program, participating faculty members and I attempted to clarify our individual roles and responsibilities. It was my contention that the Professors of Art, Computer Technologies, and Business Management Technologies, would become team teachers along with me for a variety of courses. We would combine curricular territories and share professional and personal knowledge. As the program's Director, I envisioned my role as navigator and observer aiding or assisting community advisory members and other participants when necessary in the collaborative planning of the curriculum and in teaching. I initiated the program and as the Assistant Professor of Electronic Media visualized my role not only as a researcher, but as a university representative.

4.3.1 Strengths of Collaboration

Many of the strengths of the program were reliant on the strong relationship between the participating faculty members and myself. When designing the technology components of the program, our mutual beliefs in a comprehensive interdisciplinary program enhanced the curriculum development. Together we supported common goals and objectives of the program. Our personalities displayed a strong willingness to accept new responsibilities and freely make additions or changes to each others' ideas. The degree to which our personalities, goals, objectives, and commitment to the program were congruent was an important aspect in this research. The flexibility each individual

possessed was one of the greatest assets to the program. We were willing to learn new ideas, accept new responsibilities, and act as resources for each other. The Computer Technology Professor stated, “[A] strength of the program is the faculty’s flexibility to accommodate a variety of disciplines and media enabling more participation on the part of the students” (D. Collopy, personal communication, September, 2000). He also stated that he had reservations about the program at the onset as he believed that too many individuals involved would cause a deviation from the program’s original intent. After having a successful experience, he has decided to plan a “certification track” within his own program to accommodate computer science students who wish to have multimedia technology experience. The growth of collaboration was a direct result of a mutual dedication to the goals that promoted our concepts of interdisciplinary curriculum.

Community members’ participation encouraged the continued use of collaboration throughout the entire development process. Each member of the advisory group brought with them a unique collaborative perspective. This unique perspective was reflective of their work experience in the private employment sector. Having to work with co-workers in planned and group efforts on a daily basis as part of their job gave them an edge in knowing how to interact both independently and in a group setting. The advisory participants seemed to have a natural camaraderie amongst themselves as they casually sat with each other discussing local events before meetings. Several knew each other from church

groups, their children's school functions, or community events. Their pleasure in working together was exhibited many times as they shook hands and greeted each other prior to and after meetings. This relationship between the advisory participants contributed to the success of their input and provided a stable, respectful work environment for the entire group. It also set up an atmosphere of positive energy which seemed to be lacking when only faculty, staff and administration met.

Administrators' participation in the collaborative process developed and grew over time. Several administrators' participation levels increased as I encouraged them to actively contribute to our development process. I gradually became comfortable with their individual levels of input. As in the case of our Associate Dean, we proposed meeting times as "briefings;" short meetings at which I would update him on our progress. During this time he would read, edit and review our developing materials for submission to OBR. This also helped to define the business and community advisory members' roles and contributions by acknowledging their input and suggestions. Off campus administrators took on differential roles depending on what part of the process and program they were representing. I worked independently with two other branch campus media Directors and solicited advise from them as how to proceed with the program's approval process, set up curriculum, purchase equipment, and make decisions regarding budgeting, space, and student matriculation. Both Directors were seasoned professionals in their respective media fields and as professors of their

respective discipline. Both had been through similar proceedings before with their own programs and offered suggestions as how to navigate the university approval process. Although their individual programs were older and did not develop with community input in mind, by my invitation both Directors attended meetings from their campuses via microwave and satellite to participate in the construction of the new collaborative degree.

4.3.2 Challenges of Collaboration

Most weaknesses or stumbling blocks for the program came with the collaborative involvement of administration during the process of developing the curriculum as outlined in the Curriculum Development Section. The majority of administrators on the Lancaster campus stated verbally that they wanted to contribute to the program's development but never seemed to follow through with their part of the process when it came time. This lack of participation I believe was due to several outside influences: local, state, and federal alterations in budgeting and resources for educational funding; and the nature of academic culture and its workload on both faculty and administrative employees. Because of multiple employment tasks for each individual, it is often difficult for administration and faculty to put priorities on various projects. And with the additional requirements for faculty in the areas of teaching, service and research, it is often burdensome to add projects to schedules that are already overwhelmed.

The budget alterations resulted largely from state budget cuts which directly affected available funding for the start-up of the program. This in combination with the continuous educational requirements placed on local area schools, such as increased proficiency testing, lowered program interest for administrators and local school teachers. These changing agendas, along with new mandates for institutions of higher education in Ohio, all affected administrative response to the project over time.

With the development of these changes, several individuals, such as the campus Dean, had other on-going projects and seemed unsure as to what their role in the participatory and collaborative process should be. During meetings with the Dean, many problems and issues that I felt were of weighted importance were not given that importance by her. Example issues were; budgeting and funding, technical maintenance upgrades, and space allocation. These topics were constantly being put off until later meetings, or verbally passed on to some other person for consideration or approval. Since I was new to the position, and of limited rank, I did not know what my place was in directing or pushing these agendas, nor did I have anyone of rank or authority to advise me on the process. At one time in a meeting with my Division Coordinator, I was told in a parental tone, “[D]on’t worry everything will work itself out” (personal communication, January, 2002). I did not need this kind of advise on solving these issues, I needed serious administrative answers or someone with rank and authority to help find them for me.

General problems in collaboration(s) between departments or faculty were a result of the “newness” of the program; not necessarily through individuals working together, or the concept of interdisciplinary work. Ideas of collaboration and interdisciplinary work in art studios or classrooms have been discussed in higher education many times (Ettinger, 1988; Freedman, 1991, 1992, 1997; Gaff, 1988; Goodman, 1987, 1990; McDevitt-Stredney, 1993; Mckee, 1986); but the newness of the Electronic Media, or “interactive” discipline itself caused confusion in the roles and responsibilities that individual academic departments would accept. As a fledging media and discipline with content overlap in many subjects, it set up a direct conflict with the academic tradition of teaching disciplines within isolated departments. Issues regarding responsibilities such as; who was responsible for facilities; money, purchases and budgeting; student attrition; or the upgrading and maintenance of equipment, were always changing. Curriculum decisions such as responsibilities for media content would often become confused or have to be negotiated because academic “territories” had already been predetermined by the system. With the rapid growth and continual development of multimedia, these issues will not go away. Change itself is an integral part of what multimedia is and how it works. Problems that departments experience in these areas may go unresolved unless they become more adaptable. Although attempts were made though out the program to clearly define initial departmental responsibilities, it was evident that these issues would have to work themselves out through an evolutionary process. This may also

require that individuals or participants even further redefine their roles. They may find themselves having to continuously become more flexible in accepting changes in their previously conceived roles.

A reoccurring problem that confused the defining of participant roles and employment status is illustrated in the following example. During the beginning of the program's development, both the Professor of Art and the Professor of Business Management Technologies tended to dominate meeting discussions. Both were very passionate about their disciplines, but viewed technology not as a medium, or a bridge to cross disciplines, but as something they had to incorporate into their programs to either stay current in their field or build a case for their tenure. This was a surprise to me, particularly when working with the Professor of Art. It was evident through his views that he had come through heavy modernist training in art. He tended to resist the idea of technology as an art medium. In my excitement of developing the program, I didn't stop to think that there would still be resistance to technology as an art medium by instructors. I assumed wrongly that most Art instructors and teachers had accepted the computer and its components as a tool and would approach using it the classroom naturally.

I struggled in my role, particularly with the tenured Professor of Art. I found myself tutoring him in several software packages such as Adobe PhotoShop and MetaCreations Painter. The process of production with the computer seemed to amuse him more than function as a potential resource for his students. My

program's goal of collaboration with the Art Department was to have Electronic Media students intermingle with Art students. Electronic Media students were required to take Drawing, Design Foundation Courses, and Art Appreciation while Art students were not required to take any Introductory Multimedia Courses. I would have liked to have team taught a course with this professor, but it became apparent about mid-way through our progress that he was not interested in that approach. I believe he was content to have his students enroll in EM courses, while EM students were required to take Art courses. This benefited him directly as well as his department by increasing enrollment in his courses, but not necessarily in mine. At this time I did not pursue additional work with this professor due to the underlying politics and hierarchical structure and power of the tenure process and positioning.

After working through some of these issues for myself, I came to realize that not all departments I had in mind would be interested in participating in a collaborative format. I noted that the time commitment, the uniqueness of the program, and the revision of an established sequence of courses may cause instructors to shy away from participating in other collaborative endeavors. I also felt the personalities of the participants in the program would dictate the success or failure of the program. Not all instructors are able to be collaborative together.

4.4 Curriculum Decisions

From the beginning of my employment with OU-L, I was excited about designing a curriculum. This was my favorite portion of developing the project for

it allowed me to express my views on the important part visual art now played in conjunction with emerging technologies. My prior research (Fennmore, 1996, 1997) lead me to believe, what I had experienced, that being visually literate in our changing technological world is necessary, if not an indispensable, part of contemporary education. Many authors concur that society will need adept skills in visual literacy as it progresses forward with the integrated use of technologies (Mead, 1970; Carey, 1989; Mitchell, 1994; Bryson, Holly & Moxey, 1993; Lloyd, & Barnhurst, 1994, Beauchamp, Braden, & Baca, 1994).

When meeting with my peers, the participants, we decided to dedicate several meetings to the development of the courses that we felt were most important to the mission of the degree program. With representatives included from the local business community, we were insured the input of their immediate employment skills and needs. Several of the advisory members expressed that they were unprepared to suggest what students should be learning in the classroom. For many, their own experiences with new technologies were minimal. They were concerned that their own experiences and training from a different period and generation might cause biases against new ideas. One member felt that his business was in need of “modern technology” but that he had been working in his current method for so long that he wouldn’t be able to adapt quickly enough. He explained, “I can see areas in my own shop that would benefit from this type of work, but I can’t afford to take the time to learn it myself” (J. Rennie, personal communication, June 2001). Many expressed reservations

about new technologies because they did not have personal training themselves, but felt that it would be good for the community to stay current “with the outside world” (personal communication, June 2001).

Another advisory member who employed many OU-L students described hiring a student “right out of graduation” and found that the student had no actual experience in production despite what was described as an internship on his resume. He explained that the student had documented much of his experience on the job by writing a term paper, but had no “hands-on” experience when it came to working with the equipment by himself. He felt students at the college level were prepared for an “educational experience” which did not transfer into the workforce. The member and myself discussed at length the nature of an Associate Degree and what skills a student obtains with this amount and type of study. Given the limited time frame, the degree could not accommodate the type of learning he expected, which was more akin to a full bachelor’s degree. He suggested that problems the student might experience in the workplace be embedded in the curriculum and teaching techniques used to present the material. I asked him to prepare some ideas of what he thought students may encounter in his business so that I could try to incorporate these examples into my teaching. This example of my interaction and discussion with the advisory member of the community encouraged my decisions when constructing team teaching techniques and promoted outside classroom interdisciplinary activities that tied learning to real world experiences.

Using guidelines provided by the University, it was noted that an associate degree curriculum through Ohio University – Lancaster could only accommodate up to 103 credit hours. With the idea of interdisciplinary work, this created somewhat of a dilemma, given that it was difficult to design major program courses around a limited amount of credit hours per discipline. This set number of credit hours also included the standard number of credit hours for general requirements such as English Composition and Quantitative Skills that were mandatory for student graduation. With a determined idea that the program would become interdisciplinary, ideas on how to integrate more course options with other departments became necessary. How and when these courses should be taken during the student's projected two years of study were discussed at length. There were times when I felt it would be virtually impossible to include all introductory aspects of each important discipline involved such as computer science, art, business technologies, and graphics within a limited time frame. For most involved, we had to keep reminding ourselves that the nature and purpose of an associate degree in general is different from that of a bachelors degree. As a result of having to work with limited credit hours, we decided to build in "course options," which would accommodate different student interests and emphasis. These options are noted by an "or" on the final proposed two year plan of study shown in Appendix E. It was planned that the courses would be divided into three major sections for students to choose from. These sections are: Required Major Courses, Required Support Courses, and General Requirements.

4.4.1 Required Major Courses

In structuring the design of the Required Major Courses, I relied heavily on the experience of senior faculty members who had been through this process before with other degree proposals. Under the umbrella of Required Major Courses, I was free to develop, on my own, courses that I felt would compliment the already existing computer and broadcast courses, as well as become the content emphasis of the degree. To design those courses, I was put in the position of having to do additional external curricular research (specific to art & technology content), not directly applicable to this study, but noteworthy because the information I discovered and used played a part in the development of the following section, Required Support Courses. Listed on the two year plan of study are all “field” courses that were required and that I designed during this process (See again, Appendix E). They are identified by an EM, (Electronic Media) before the assigned catalogue number. The outline also shows electives permitted, required general courses, support courses, and the sequencing of courses over the typical student’s career. There are five additional courses proposed for the Electronic Media degree to emphasis multimedia on the Lancaster campus. They have been approved as new courses but are currently running under “Special Topics” numbers to gain student interest in the program. They are indicated by NC (New Course) following their title. These courses include: EM212 Introduction to Multimedia Production (NC); EM215 Introduction to Web Design (NC); CTCH127 Intro to Website Management (NC); and EM218

Digital Media (NC); and BMT290 Business Technology and Training Applications (NC). I decided based on my meeting notes and conversation with members of the group, that two of the new classes, CTCH127 Intro to Website Management, and BMT290 Business Technology and Training Applications, would be team taught as an additional way of introducing multimedia as a cross-disciplinary study. These courses would be housed in separate departments outside Electronic Media to demonstrate a broad and interdisciplinary approach to the program. In developing the content for each course I worked closely with the partnering professors from Business Management Technology and Computer Science to ensure students from both majors were being targeted. Student overlap from intertwining majors was expected and encouraged. It was also determined that transfer credits from other institutions would be reviewed on a case-by-case basis. This included a review and acceptance of the incoming student's portfolio. Credit from other programs in the Ohio University system would be accepted.

4.4.2 Required Support Courses

I stayed in contact with many campus administrative individuals during the development process and was required to update these individuals with my progress. I notified the Professor and Director of the School of Visual Communication, of the need to teach one of their course offerings on our campus. It was determined by our group, that the need for VICO120 Introduction to Visual Communications, was necessary and no other course currently offered

on our campus could meet its equivalent. Another individual notified of the need on our campus for a particular course was the Assistant Director of the School of Journalism. Our curriculum outline called for the courses, JOUR133 Precision Language for Journalism, and JOUR233 Information Gathering. These too, were important courses not available on our immediate campus and it was not to our advantage or the student's benefit to have the student commute to the main campus for one or two courses. After all, part of the reason for establishing the regional campuses was to meet the needs of the outlying communities not within the service area of the Athens campus. These examples, of what we considered Required Support Courses, were difficult to obtain approval for us to teach in many instances. At this time, interdepartmental politics came into play unexpectedly. It was during this portion of the curriculum development process, that I would have liked to have relied on the concept of collaboration between administrators and faculty. But as discussed in the earlier section of Collaboration, under Challenges of Collaboration, the most difficult part of the curriculum's construction came from administrators' resistance to the idea of interdisciplinary work. I would have liked to have thought that the mission of the university as a whole was to support the education of the students regardless of campus location, but most of the problems that surfaced during this project came from what I considered to be departmental "Turf Wars." In several instances, requests for instruction of a particular course that was not offered on our campus were either stalled or outright denied. It appeared in some cases that main

campus departments looked “down” on the Regional campuses, and did not wish to relinquish “ownership” of particular courses. At one point during an Athens’ curriculum counsel meeting, one faculty member even questioned the legitimacy of an associate degree in general. The OU-L Dean who was attending the meeting with me, replied openly to the group “[I]it is not the nature of this counsel to debate associate degrees, but to approve whether or not the courses we were requesting were of value to our proposed plan” (J. Furlow, personal communication, November, 2001). On another occasion, I tried to explain in several conversations with main campus administrators that OU-L would accommodate external departments if they were to send their own instructors to teach the courses to their specific specifications, but the bureaucracy that ensued, such as not having calls returned or being passed around to other administrative officials interrupted and hindered the speed of our process. In each instance where a support course was determined as needed, as in the Visual Communications and Journalism courses, we were required to take special initiatives to “coax” those departments into allowing us to offer the course. In the case of the VICO120 course, progress on the program’s development was held up so long that several large technology packages, valuing several thousands of dollars, scheduled to be purchased for the program had to be revised and reordered because they were becoming outdated. Eventually, after lengthy discussions with the Visual Communications department, I personally was cleared to teach their course, but was required to follow their syllabus and

text to the letter. I was also required to meet with the professor who had developed the course sections so that he knew I understood the department's approach to instructing the course. Having to teach this additional course myself, added to my personal teaching workload and I was not offered any compensation other than a notation in my file upon my annual progress review.

Not all interdisciplinary initiatives pertaining to curriculum were difficult. Faculty on the Lancaster campus were very open minded about the idea of incorporating elements of their discipline into a cross-disciplinary program. The Professor of Computer Science and particularly the Professor of Business Management Technology were very receptive to incorporating students of multimedia technology into their programs. Students majoring in Electronic Media had required support courses in those departments that were readily available on campus. Art 116 Descriptive Drawing, Art 100 Seeing & Knowing Visual Art, BMT140 Concepts of Marketing, and BMT200 Introduction to Business Computing are examples of the Required Support Courses available. Advanced students were also allowed to choose from workshops and independent study to satisfy this requirement. Depending on the student and his or her interest, the independent study or workshop is geared to enhance the student's knowledge of their particular emphasis, such as Video Production or Webdesign. Through a paper or project, they are required to integrate elements of an external discipline such as Computer Programming into their work. They are expected to work closely with their advisor or the professor of the chosen external discipline.

4.4.3 General Requirements

General Requirement courses are already initiated and incorporated into the student's first year by the University as "Tiers". They are considered mandatory courses such as ENG151 Freshman Composition and are listed to satisfy either Tier 1 or Tier II to help the student progress through their degree. The students may chose to complete their Tier requirements from a variety of subjects such as Statistics, Social Sciences, Economics, Government or World Problems. Electronic Media students in the Associate Degree program are held to completing their Tier requirements and options for this completion is built into the sequencing of associate degree classes. It was decided by members of our group to intermingle Required Major Courses and Required Support Courses with the General Requirement courses so as to not overwhelm the student in his or her major emphasis of study. The sequencing of all the courses became important as we coordinated the new courses with the existing times and quarter offerings of the General Requirements. In many situations we could not alter the time or quarter of the Required Support Courses, and had to work around their specific offerings – we felt lucky just to get them offered on our campus. As shown in the two year plan of study, (See Appendix E), the sequencing of courses introduces the student's Required Major classes slowly through the first two and three quarters. It was decided in this way so that students had the opportunity to explore the emphasis areas of Multimedia that most excited them. Background and discovery courses such as EM101 Introduction to Electronic

Media provide an overview of the field, facilities, student responsibilities, and career expectations while permitting them to focus on fulfilling their General Requirements. Courses that involved the development and integration of media and that are primarily studio oriented do not begin until the student's third quarter of the program.

4.5 Mid – Program Development: Discussions and Interviews

About mid-way through the program's development, I stopped to assess my progress. I wanted to meet more often with people on an individual basis so that I could focus more clearly on their specific concerns. Speaking with current and incoming students was also a priority. In addition, many parents were now calling me at my office having heard of the developing program and wanting more information for their son or daughter. At this point, I did not have enough material to publish a brochure regarding the future program, but I did wish to meet with them to discuss their interests and application to the program upon its initiation.

4.5.1 In-Class Students

The in-class students participating in this study provided a variety of data through informal interviews, written material, class discussion and actual project presentation. At the beginning of my class meetings with them, I asked the students to provide ideas of what Multimedia was to them and how they saw themselves using it in the future. I wanted to compare their thoughts and answers with the answers returned from the community survey. This information would

give me a direction as to what technologies students were interested in verses the needs of the employers. In their responses, several students said that they were not sure “but would like to make a lot of money” (personal communication, September, 2000). Some students said that they were interested in developing video games and computer technologies but that they did not have the money to study at “professional computer schools” (personal communication, September, 2000). I initiated class discussions hoping to provide a clearer understanding of how art and technology combined within the field of Multimedia. I also wanted them to experience learning that would be collaborative in nature and akin to an experience that they might find themselves in after graduating. Students were given specific assignments that asked them to utilize their current technology skills and to include the new art vocabulary we were studying. Of 10 students, only two did not seem to grasp the concepts that were being applied. They made remarks such as “my computer at home is faster”, and “I don’t care what my image looks like anymore” (personal communication, September 2000). I tried to explain that they were in a learning stage in which becoming comfortable with the equipment was important. With experience and time their skills in projecting the content of their ideas through technology and imagery would come. Many students lacked the patience or skill to actually conceptualize a design or image. As one student said, “I want the computer to do it for me” (personal communication, October, 2000). When studying Webpage design, several students opted for software programs that predetermined the interface of the

page for them providing content arrangement, tables and pictures, along with prewritten hypertext and buttons – instant design. This was not my idea of what interactive and interdisciplinary electronic media was. Although these students were participating in an experimental course, prior to the initiation of the actual program, I thought that many of them did not have a good concept of what Electronic Media was in the larger context of not only the city of Lancaster, but globally.

4.5.2 Parents and Prospective Students

Often unexpectedly I would receive a phone call from a parent requesting an appointment with their son or daughter to review items they needed to enter the new future Electronic Media program after high school. These students were usually seniors in high school, or juniors doing a career or business assignment. At first I was shocked that the parents were calling to make the appointment, and that the student was usually only appeasing the parent. The parents wouldn't actually know what to call the Electronic Media program, only referring to it as "art and computers" or "advertising with computers" (personal communication, April, 2001). Many would express that their son or daughter had "lots of drawing talent" and wanted them to "have a good job" (personal communication, April 2001). When coming in for their appointment, I made a special effort to show both the parent and the student around the campus. I focused primarily on the laboratories and technology that we currently had available. Most parents were impressed with the facilities commenting that Lancaster (the city) needed more

training outlets for individuals wanting to upgrade or update their skills. I believe in many cases, the parents would have liked to have enrolled in the program themselves. Usually in meeting with the prospective student, I requested a few moments alone with him or her in a conference room setting to review his or her portfolio and to try and get a feel for the direction in which the student wanted to proceed. Many were unsure, having only brought the equivalent of high school drawings or projects as examples of their portfolio items. No students brought work representative of computer or technology oriented design. I began to wonder about the high schools we would be drawing students from; how many had facilities to teach basic art concepts let alone, rudimentary computer design skills. Should we in the development of our curriculum, assume that these students did not have foundation training in high school art education; and if this was true, then where would we build that in the curriculum given the limited credit hours and courses we already had. Was providing rudimentary art skills our responsibility? After mentioning my thoughts to a colleague, he said “why not, we provide remedial English and Math” (J.E. Zimmerman, personal communication, April 2001). After that, my concept of producing a grand, exciting, cutting-edge program and facility seemed to dim. Would I forever be teaching Beginning Design as I had done in graduate student?

4.6 Experimental and Special Topics Courses

During my work in developing the EM program, I was also functioning as a faculty member teaching what was called Experimental or Special Topics

courses. These courses were to be a preview of the coming courses in the Electronic Media program. I was able to design these courses while projecting their eventual placement and need in the sequence of the two year study plan. In a sense, these courses would become the “new courses” as the program became approved. I was able to test projects, discussions, team teaching, guest speakers, and any other source of information I felt necessary for the development of the course. I relied on prior research (Brown, 1990; Fennmore, 1996, 1997; Freedman, 1991, 1992, 1994, 1997) and the external research I was conducting to create content for the five new courses. I also incorporated many of the suggestions that our group defined as being important concepts in the program. For instance, I relied heavily on one community business advisory member in developing the interface and content discussion projects for the Web Design course. As an example, students were asked to visit a local community business and interview the owner if possible. Their mission was to define what types of information that business would like to express on the Web if they had the opportunity and desire to do so. How would a site best function for that business in their specific environment; and what types of facilities and technology would be required for the business to maintain the site, or pay to have one managed for them? After collecting this information, students would compare notes, discuss problems, advantages, options and additional information that would contribute to the design process of such a site.

Another Experimental course was taught entirely on-line through email, webpages, chat rooms, and bulletin boards. Students participating in the course were also asked to evaluate and compare the course to other courses taught in the traditional classroom manner. As an Educator of new media, in some ways I felt obligated to design some content via the internet, but was concerned that the grade level of the students involved was not mature enough to take responsibly for the time management skills required to participate in such a course. The course did allow me to test what applications and projects could best be done in this environment while introducing to the students to the concept of on-line or distance learning.

4.6.1 Student Learning

I began to redefine my concept of teaching interactive technologies as our advisory group progressed with the discussions of interdisciplinary work. I felt the students in my Special Topics courses who were struggling with the course content may not have anything personal to invest into their assignments. During these remedial classes we had been focusing on the use of specific technologies, but not use specific to their community, Lancaster. I felt that by using local community resources as support the students might take more of an initiative in developing their skills. I wanted to create a bridge between what was being learned in the classroom and how it immediately applied to the student in their current surroundings. As ideas of the program evolved, I implemented and utilized several community resources in my lessons. As a class, we researched

and visited two video production companies. Each company was Lancaster based, but serviced a variety of areas in Fairfield county. The field of Video recently has been through many technology changes over the last decade, and each company was happy to discuss their own transformation and integration of new technologies. One smaller company still had dated camcorders and recording devices that when compared to a contemporary digital video recorder seemed much older instead of only a few years . I also incorporated local guest speakers into the classes. I chose individuals who were currently working with some interactive media, such as the local cable company, and asked to have a representative discuss the needs of the local community. Since most cable companies now integrate internet services with their broadcast packages it was interesting to hear from a technician the pros and cons of this integration. Most students had some form of internet access at their homes, but did not specifically know how it worked. After this lecture, students were assigned research to find out how their own personal internet access worked in their homes and what alternatives might be available to them. These community based lessons afforded students the opportunity to develop a more positive relationship with their community. They encouraged more classroom dialogue and an improved use of language skills. Their references to art vocabulary became apparent. The students gained more insight into local activities and became aware of the employment possibilities they had within their own hometown. It also promoted a sense of city pride and became an important component in my future lessons.

4.7 Submitting the Proposal

Our projected date of completion for the submission of the official degree Proposal was the beginning of Fall Quarter 2001. According to this plan all documentation, when finally approved by the University's main campus Curriculum Counsel, would be sent to the Ohio Board of Regents. If approved by OBR we would begin offering courses under the new major beginning Winter Quarter of 2002.

At first, this seemed like an easy straight forward process. The universities I had previously attended and worked for all had guidelines and handbooks outlining university administrative procedures for developing and installing new programs. It was not until I was well steeped in Ohio University politics and professional agendas that I realized that the regional branch campuses had no such handbook or guidelines. As I investigated the process of program development, I was told to pass my materials on to different administrative individuals. I assumed that I needed these individuals' approval for the next step in the developmental process. I requested a formal outline or guideline that the program's approval process would follow several times from the Associate Dean's office so that I could review and meet its requirements. I never received one nor an explanation as to why not. In the end, after an exhaustive discussion with many individuals, I was told that there was no "official" process and that usually a new program's proposal when considered complete by various administrators was sent on to the Curriculum Counsel. I felt this was a terrible

way to review and discuss such important programs for the campus at the administrative level. I felt both frustrated and betrayed as I was put in the position of being the sole individual responsible for seeing the material through to its end destination. After working towards the goal of collaboration, and as a beginning faculty member subject to tenure review, I felt I should not be the sole individual pushing this program through the system. As I came to this realization, I was in the middle of the program's curriculum development and felt there was not much I could do other than enlist the help of my faculty peers. With their support I was able to pressure some administration into carrying a portion of this responsibility. In my mind, I was not an official administrator and could not make executive decisions regarding the finalization of the program.

Throughout the entire degree development process I constantly checked with administration, faculty, and staff for direction in submitting new program materials to the main campus Curriculum Counsel. I believe my repeated attempts to secure a standard process or guideline for program development became so annoying to administrators that they conceded in changing their approach. Changes in policy lead to the development of a Regional Campus Curriculum Counsel, (RCCC), which took the place of the main campus Curriculum Counsel's part in the current process. The RCCC was now directly in control of approval processes for all branch campus new program initiatives and was made up of individual representatives from the branch campuses. By creating this new Regional Counsel, the branch campuses could now bypass the

old procedure of circulating materials to many administrators on and off campuses. Now, only the Associate Dean was to review a program proposal, and upon his or her recommendation, sent it on to the Regional Campus Curriculum Counsel for review, suggestions and/or approval. After the program's approval from RCCC, the signed proposal moved on to the Ohio Board of Regents. After having established this change in policy and procedure, the finalization of the Electronic Media program on paper became much more clear and straightforward.

Once the final Degree Proposal was approved by RCCC, we were required to support our mission with additional follow-up documentation. This documentation would accompany the final Proposal to OBR and include most all of our original ideas developed during the initial meetings; questionnaires and responses (to and from the community); statistical numbers, outside curricular research, budget planning, facility planning; and any other information we found relevant to supporting our need for the program on the Lancaster campus. As we prepared the formal Proposal for submission, we requested and were granted by the Ohio Board of Regents, "Preliminary Approval" status. This status was obtained by supplying OBR with a Preliminary Proposal. The Preliminary Proposal intentionally functioned as a "draft" of the final proposal stating major needs and facts with the contingency that we would remit the full proposal, in it's entirety, according to process and by the OBR meeting deadlines. Letters of correspondence between RHE; the Associate Dean of the Lancaster Campus;

myself; and OBR's Director of Workforce Development confirm the application and acceptance. (See Appendix F).

In addition to the required materials submitted with the full degree proposal, we included a summary and classification of the courses comprising the program by quarter and semester. It assumed full-time enrollment by the student and provided subtotals of credit hours by quarter, semester, course type, and by the total credit hours required. Also included was a detailed Financial Impact Statement and a statement of specific Enrollment Projections. Materials relating specifically to the content and development of the new Electronic Media courses were also included supporting the final degree outline. These were the five new EM courses, designed and drafted by myself, and approved by the RCCC. It was not necessary to provide OBR with the extensive research that went into developing the courses or content, but only the New Course Approval Forms signed by Ohio University administration. (see Appendix G). A general overview of each course similar in format to a class syllabus was required to accompany the Approval Forms. The overview for each course included sections on: Purpose of the Course, Course Content, Possible Texts and / or Readings; Lab Activities; Assignments; Resources; Relationship to Other Courses; and whether or not the course could function as an elective for students in other majors.

The day I received the Preliminary Approval Letter I felt as if a huge weight had been lifted from my shoulders. Now only having to submit the final

materials, I felt much of what I and the others set out to accomplish had been completed. Throughout the long periods of projecting and revising our ideas for the program, I felt all members involved sincerely wanted our program to succeed. Not only for the growth and good of the Lancaster campus, but specifically for the benefits it would provide to the students in the area as well as the business and community members who would feel the after effects directly.

After the meeting in which the final proposal was finished, each member of the group spoke with me directly. We shook hands and congratulated ourselves for not only seeing our project through the end, but for having completed it in a manner that was satisfactory to everyone involved even with the unexpected delays and burdening bureaucracy. Our initial idea of collaboration and interdisciplinary work had sustained throughout the progress. I felt that by having the various members of the community participating in the development process, it had definitely contributed to the way university individuals handled themselves in staying on course with the outline of the program. Any deviation of discipline direction was usually noticed by a community member objectively. Since most community advisory members were unaware of underlying faculty politics or agendas, it was easier for everyone to follow the initial path without becoming sidetracked with compounding issues of our own. Our experiences with the development of this program, had contributed to our growth as professionals, educators, mentors, co-workers and friends.

The following chapter presents a concise summary of the above outlined events in conjunction with the results and discoveries of the four initial area questions presented in chapter one. Corroboration of literature and methodologies utilized are discussed in conjunction with the conclusions and implications of this study. Recommendations for further development and research are presented.

CHAPTER 5

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

5.1 Conclusions

In this chapter the findings of the study are reviewed. I present the conclusions and implications for the fields of art education, studio art, and multimedia development while succinctly summarizing my original four area research questions in conjunction with answering my overarching question of how to create a collaborative, interdisciplinary, art and technology associate degree program unique to the campus and city of Lancaster. The four questions of concern along with their subsequent and related issues referred to in Chapter 1 are: 1.*Participation and Need for an Electronic Media Program in the Lancaster area*; issues of *Necessity*. 2.*Collaboration of Individuals from the Community and Institution*; issues of *Advisory Participation, Interdisciplinary Commitments, and Student Recognition*. 3.*Curriculum Development*; issues regarding *Additional Materials and Literature Needed and Participant Input*. 4.*Navigating University Policy and Procedures*; issues pertaining to *Finding a Support System and Finding Success*. Significance of the study with additional conclusions regarding

these answers are detailed below in an overlapping manner due to the time progression of the study. *Implications and Recommendations* for further reading and research in the areas of collaboration and interdisciplinary curriculum development follow in a section headed *Changes in the Academic Environment*.

Throughout the descriptive narrative of the program presented in Chapter 4, data was described and analyzed with regard to the process of preparing the degree program in theory and content: preparation projects such as the Lancaster area survey, collaborative development of contributing individuals such as Advisory Members and interdisciplinary faculty, curriculum decisions and construction, mid-program progress, experimental course reviews, and final proposal submission. Faculty interaction, student learning, and interdisciplinary curriculum development were at the heart of the completion of the program. The research and information was summarized by reviewing those developments and materials while subsequently speaking directly with advisory members of the group regarding the project's final outcome. The materials summarized correspond directly with concepts and issues of my initial four overarching questions and are related and discussed as they came about during the process and course of the study. The methodology and methods used are referred to as needed, but generally have contributed primarily to the analysis portion of the study. All of these aspects contributed to my understanding of the benefits and impediments of creating a collaborative, interdisciplinary, art and technology

oriented associate degree program at a university branch campus. The findings pertinent to of each question area are listed below:

5.2 Participation and Need for an Electronic Media Program in the Lancaster Area

5.2.1 Necessity

Discovering how and why it was necessary to create the interdisciplinary art and technology multimedia program in the city of Lancaster through collaboration is clearly illustrated by each participating individual's reasons for being included in the program's development. Many of these reason's such as professional development, contribution to the community, and a sincere interest in sustaining the academic success of the students are the same as the motivational reasons discussed in the earlier literature on collaborative efforts (Carol, 1998; Kellner, 1995; Schultze, Q. & Anker, R; 1993). The successful collaboration of community members in conjunction with faculty and administration showed that all participants were aware of the important effects that campus' new program development had upon the city. As stated earlier, through this joint effort the campus is better able to serve its purpose by knowing and understanding its community of learners. The collaborative research demonstrated by the Advisory Group Members and the participating interdisciplinary faculty in the initial planning stages of the program showed not only a need for the program for Lancaster's traditional students, but also by the non-traditional adult learner in the Lancaster area. Support was also shown by

the positive response to the initial Electronic Media survey. The survey answers discussed in Chapter 4, which were returned by local community business members, revealed and demonstrated a sincere concern, interest, and need for individuals trained in the Electronic Media subject area (Appendix A).

5.3 Collaboration of Individuals from the Community and Institution

5.3.1 Advisory Participation

The business and community members who participated in the program's collaborative development did so to learn more about how teaching contemporary technology would benefit the community as a whole. This experience allowed them a to learn techniques for interdisciplinary work, and also experience first hand methods of collaboration while gaining knowledge of how decisions in higher education affect the community they live in. They acquired information concerning the placement of students within the program as well as how these students develop their skills. They also became knowledgeable about how other colleges and universities handled programs with similar course offerings. This information provided further suggestions as to how and where the students may be integrated into the Lancaster or Fairfield communities after graduation.

With each meeting the business and community advisory members became more comfortable not only with the collaborative process, but also with new vocabulary, university procedure, their role as contributors, and their new found confidence in speaking about technologies. Although most did not have

full-time involvement with the development of the program or curriculum, several individuals contented that the additional professional experience through their participation greatly increased their confidence in using new accoutrements as well as enhanced their sense of professionalism. One even expressed during the Advisory Breakfast meeting, “This has been so rewarding, I feel that I’ve really contributed some sense of myself to the students” (N. Ragusa, personal communication, May, 2001). The participants from the community not only contributed to the initial planning stages of the degree, but they reviewed developments, participated in informal interviews, donated expert knowledge and opinions about their field of employment, and represented others in the community who had similar concerns. Reinharz (1992) supports using participant input in this manner and states that it’s success, “requires a researcher who is able to coordinate a team of individuals with a variety of skills” (p. 213).

5.3.2 Interdisciplinary and Collaborative Commitments

I feel that it is the researcher’s responsibility to investigate multiple perspectives. As the study progressed I found this included outside influences as well as internal issues. Outside influences included area economics; community agendas; and federal, state, and local political developments. Other outside influences considered included ongoing changes in regional and national procedures in areas of higher education and within the K-12 arena. All of these perspectives and multiple influences affected the outcome of project. I identified the following areas as areas that would be key in establishing future

interdisciplinary and collaborative agreements: community expectations; faculty and administrative commitment; budget confirmation; size and scale of the project; departmental responsibilities and obligations; and the expectations of staff, faculty, and myself. Since these areas of discovery developed individually and over the course of the project's development, I feel they warrant further research and investigation and are discussed later in the chapter under *Suggestions for Further Research*.

Campus and community attitudes towards collaboration and interdisciplinary work were extremely important to the outcome of the study. It was apparent that the two concepts were interdependent and grew together as our concept and construction of the program advanced. The new technologies being taught demanded that subjects overlap – in several cases, such as the development of the new courses that define what Electronic Media is for the student, we were not given a choice as to whether or not we could work together, the question became, how would we work together? Not only were instructors, administration, and community members required to work together, but connecting and incorporating disciplines also meant that the students of those disciplines would now have to work together in a similar manner. Freedman, 1991; Lloyd, & Barnhurst, 1994; and Lovejoy, 1989; begin to discuss this dilemma in their work and although Freedman (1994), specifically identifies gender issues among students working together, I found no current art or education literature addressing collaborative issues when developing an entire

program that included the integration of disciplines. I found myself looking for literature that discussed issues of creating a new discipline. Literature referring to the evolutions of individual academic disciplines were extremely limited in the areas of higher education.

When encountering resistance to collaborative work from members from my own institution, it was difficult to decipher whether personal or profession reasons where at the root of the problem. In many instances, such as with administration, resistance seemed to be attached to the person's individual job responsibilities. Issues of power, hierarchy, professional advancement and money were many times motivating factors for results or lack of results. Some administrators, not used to faculty collaboration, were unable to come to terms with the needs that overlapped disciplines, departments, students and campuses produced. I believe that I would not be able to duplicate this program using the same collaborative approach on a larger university campus because of the volatile changing nature of politics, personalities, and disciplinary structures at larger institutions. Even though these same problems exist on smaller regional campuses such as OU-L, the opportunity to over come them was easier and more expedient due to the intimate nature of employee relationships and the size of the campus.

5.3.3 Student Recognition

Part of our discovery in the collaborative and interdisciplinary process was how each group of participants viewed the students, and how these viewpoints

would be interwoven into the program's design. This is illustrated by the fact that faculty, administration, and advisory members all came to the table with a different idea of why the students were there and what they needed to learn. This consequently influenced individual reasoning and input into the program It was difficult to recognize each individual group's biases for each participant had a valid perspective based on his or her own experiences. Faculty viewed the students as learners, administration tended to view the students as a consumers, and the Advisory Members viewed the students as potential employees. Through their personal experiences, participants were faced with having to alter their perceptions and sometimes methods of collaboration, which enhanced their understanding of the proposed curriculum content. This aspect illustrated the previous contentions that faculty and community members could work together successfully and develop respect for each other's contributions to the program and community. With the success of the students as a major goal they applied and integrated ideas of employment and community needs into traditional academic curriculum content while developing confidence in working with new technologies. Through their own personal successes, the participants became proud of their accomplishments.

5.4 Curriculum Development

5.4.1 Additional Material and Literature is Needed

McDevitt-Stredney (1993) discusses in her case study three approaches to crafting an art and technology course curriculum in higher education –

computer technology or media focused, creative artistic process focused, and art education content DBAE, (Discipline Based Art Education) focused. It was not my intention to produce a course curriculum or a university program that would fit one of these above categories or one that could be immediately assimilated into other departments or programs. My intention was to develop a unique order of courses designed specifically to meet the needs of students who would be attending OU-L and living within that same community after graduating. The courses and curriculum itself became flexible enough to accommodate change within the city of Lancaster as technologies continue to rapidly grow and change. I feel that I have added a new and “site specific” approach to creating an art and technology curriculum while contributing to the concepts and philosophies of teaching art education.

As stated in Chapter 2, much of what I found in the literature was not helpful in designing a program curriculum for a new discipline. Previously published materials and studies concerning technology curriculum in the art studios of higher education are either of a philosophical nature or recipes for computer graphics curricula (Hubbard & Greh, 1991; CAA, 1996; Fennmore, 1997; Bryson, Holly, & Moxey, 1993). Artists, art historians, aestheticians, and art educators share their views, experiences, and projections for the future, but with very little insight into how any of it is perceived by either students or the local community. As indicated in the literature review, the purpose of including the theoretical and practical viewpoints such as those of Beck, 1994; Bryson, Holly,

& Moxey, 1993; Carrol, 1998; and Efland, 1990; was to provide a foundation for reflection when considering the student and/or community's views, experiences, and perceptions within this particular case study.

5.4.2 Participant Input

At the beginning of the program, most advisory members and faculty agreed that student preparation for employment needed to be a priority. They felt that students needed to be prepared for the realities of the workplace. This became a major priority when developing the program's curriculum. The five individual new courses developed to function as the "core" of the program, were structured with the idea of integrating "real world" problems and projects as content. Input regarding these "real world" issues and experiences was derived directly from the community and faculty participants. Important issues identified and addressed by the participants included: specific production skills; multimedia skills; written, verbal and research skills; familiarity and use of technologies locally, and understanding of interdisciplinary subject matters.

5.5 Navigating the Academic System

5.5.1 Finding a Support System

I found that developing an interdisciplinary curriculum was far more difficult than I expected. I knew there would be academic impediments and resistance, but not to the scope and breath that I experienced then. Developing courses that depended upon the use and integration of other disciplines as resources and support was mandatory if I was to construct a program in the

discipline of multimedia. Even the word itself, “multi-media” indicated that subject areas overlapped, but I found that most people did not actually understand the term “multimedia” and only responded to it as buzzword. I was shocked by what I found to be a “territorial” approach to teaching when working with the larger home departments of the main campus. After having reviewed my documented materials, notes, discussion interviews, conversations and experiences with a variety of individuals regarding the academic approval procedure(s) involved, I believe many of disagreements and resistances were tied to intangible concepts that differed between faculty and administration. With faculty, I found the resistance to be of a more personal nature. Instructors wanted to keep “ownership” of their syllabi and materials; or they had a specific or particular method of teaching the material that they wanted to preserve. Administration resistance came from two sources; funding and student attrition. Departments’ and colleges’ funding were usually tied to a program’s success or failure and how many students they could retain. Any work or requests that could be viewed as a threat to the accumulation of students was immediately denied. By asking permission to teach existing courses on the regional campus, I was viewed as taking students away from existing programs and departments. Not one person or department wanted to take responsibility for the denial and I was constantly referred to different individuals for permission or specific instructions for my request. Only after having the Associate Dean make several requests, did the program succeed in offering a few off campus courses; the OU-L Associate Dean

experienced the same resistance but was in more of an authoritarian position and therefore could push the issue. I found all of these reasons for resistance to be almost an act of defiance on the part of the individual departments involved. It was a direct conflict not only with the mission of a regional campus, but the mission of the University as a whole. As a faculty member who has been trained with a certain ideology of what education was for and who education was to serve, I was deeply insulted and found it hard not to take the denials personally. It was only through my own constant perseverance, and fundamental participant relationships, that I created a support system for myself in this particular case.

5.5.2 Finding Success

Creating the program and gaining it's preliminary approval on the OU-L campus was only successful because of the specific individual personalities involved and the small intimate nature of the campus environment. Administration, faculty and staff were more likely to work together because of the close personal and professional relationships they have. As stated earlier, in developing the program in a collaborative manner I feel that I could not have developed one of this nature, with decidedly interdisciplinary subject matter and content, on a larger campus. To do so would have taken more than just the sheer willingness of the people involved to succeed. Issues such as economics, power, politics and disciplinary rivalries would prove to be much more difficult to overcome. I now feel that when creating any new program or course, a support system should be established in the earliest forms of its development. The

support system in this instance is the unique allegiance of individuals with a common goal.

5.6 Significance of the Study

The research findings of the study supported my original convictions supported by the literature presented in Chapters 1 and 2; that OU-L, knowing and understanding its students and community, could draft a better curriculum for their new associate degree with the impact of community-based practices. This in turn enables the regional campus to fulfill its purpose of servicing the local community. Local information uncovered is unique and crucial to the success or failure of designing a program that is meaningful and productive for its graduating students. I define the importance of these contributions within my four area questions as follows:

5.6.1 Participation and Need

Previous studies such as McDevitt-Stredney, 1993, and Mckee, 1986, support the idea of interdisciplinary curriculum as a way to integrate student participation in the development of the curriculum itself. But as noted, I believe more literature is needed when addressing program development in particular. McDevitt-Stredney addressed issues of bias as I experienced them as the participates came to our discussions with different expectations of what the students should be learning and what the program should do for the community. She asked: “Should students be regarded as participatory consumers of goods and services provided by universities? Or should universities’ administration,

faculty and staff limit the consumer market approach by determing what is best for the students”? (p. 39).She also discussed what it means when we conceptually ask, “[W]hat is the value of students’, perceptions and attitudes”? (p. 39). I feel I add to her line of thinking, by extending that question to individuals not traditionally associated with curriculum and program development - parents and community members. Their input provides a substantial background by which universities and colleges can measure development, growth, and need for new programs. Universities and colleges serve their communities by advancing the city’s populations with progressive and immediate education and training developments. To evaluate and measure whether or not an institution is current and contemporary in its offerings, mission, and goals, they should be able to look to its local community and economics for answers. This study reflects these answers for OU-L.

5.6.2 Collaboration

Community input and interdisciplinary faculty involvement are two separate concepts frequently discussed in academic literature, (Donmoyer, 1990; Gaff, 1988; Glesne, C. & Peshkin, A. 1992; Janesick, 1994; McCutcheon, 1995); utilizing them together in one collaborative effort was important to this project. Although the two groups of individuals, community members and campus faculty, came from fairly different employment backgrounds, their sharing of expert knowledge was fundamental to the structure of the program. While community members provided real world experience and contributions, faculty provided

theory and knowledge-based instruction. The combination of the two approaches to the same subject matter, Electronic Media and/or Emerging Technologies, complimented one another without professional rivalry or tension. This portion of the study sets an example for what might be accomplished at other institutions in small local communities.

5.6.3 Curriculum

The program curriculum developed in this study reflects the outcome of collaboration and decisions inclusive of related disciplines while still being open and flexible to change. With this approach the final integrative program offers alternatives to students to explore a variety of media within their specific major within the allocated two year period. The Electronic Media Program itself promotes a positive attitude for students working within their own community; encouraging student self-esteem and a sense of pride in their work. The sequencing of the courses themselves may also serve as a future reference or model for others seeking to develop a similar program, or for OU-L to later create a bachelors degree in this field. I found it hard to find literature that related to the development of new disciplines and curriculum; I believe the study adds to the limited existing literature.

5.6.4 University Procedures

Given the amount of time and labor involved in coordinating this project, without official program development guidelines from the university, administrators should take notice of the amount of time, energy, and money that

was spent and in many cases wasted. Whether running a program, a department, or an entire campus, academic personnel need specific order and procedure easily available for the individuals involved. Regardless of status faculty, staff, students, or administration, an established method of communication is necessary. The academic system, built upon concepts of democracy with its history of committee votes, panel discussions, department and division meetings, and chaired counsels sometimes leaves little room for efficient progress. The development of the program would have been expedited as well as enhanced had there been an established procedure in place for creating the proposal and passing it through the university system. Due to the uncertainty and disorganization of the way new programs were created in general, the changes that occurred (such as the creation of the RCCC) were significant enough to affect future programs. Administrators of institutions should be aware that changes and developments in technology not only affect curriculum content, but the way this information is presented. Purchasing the latest equipment and teaching on-line courses will not make programs contemporary unless procedures and policies governing them are updated as well.

5.7 Implications and Recommendations

5.7.1 Changes in the Academic Environment

Literature such as The College Art Association's *Guidelines for Faculty Teaching Computer Based Media in Fine Art and Design,* (1996), and C.

Becker's *A New Generation of Artists and Art Schools*, (1996), contend that one of the most urgent questions art and media departments face now is: How do we start moving interdisciplinary and collaborative ideas out of the realm of theory and into the arena of practice? Can we integrate our traditional support system to respond to local needs or do we need to subscribe to a new overarching philosophy of teaching to accommodate this shift? This line of thinking results in a shift that has consequences not only for departments teaching visual arts, but also for those institutions involved in the exhibition and archiving of artwork, such as traditional museums and galleries. (If subscribing to a new philosophy, museums and galleries will specifically have to re-tool their self-image and sense of purpose.) Individual departments and/or institutions will have to examine their current mission statements. They will have to determine where they stand in relation to their community and to its local culture at large. They will have to determine what and whose needs they are trying to provide for. For Departments of Art in particular, this integrated or interdisciplinary approach to program development within new media may be difficult depending on its mission or political agenda. The change may be especially problematic for schools that continue to be heavily invested in the modernist philosophy of the precious art object and the purity of isolated mediums; it will demand a shift away from the production of rare and valuable objects (Carroll, 1998; Kellner, 1995; Stallabrass, 1996;). Schools or departments that integrate new electronic media will see a decided change in the way that mediums and disciplines relate to one another.

This is already the case in the areas of photography, video, and graphic design; which are currently being vulcanized into the hybrid area of multimedia (Schultz, Q & Anker, R., 1993). The new visual language is characterized by the simultaneity of image, text, motion, and sound that under the traditional academic rubric have been taught as isolated mediums. At some point in the not-to-distant future, this new language will no longer be accommodated by adding one or two computer classes into the old curriculum. Ultimately what will be needed is a re-drawing of the curriculum from participating departments as various mediums interact and intersect as described earlier. Departments will need to provide a curriculum that is focused, intense, and addresses the interdisciplinary complexities of working in this new form; precisely what is now happening at the Lancaster campus with the development and integration of the new associate degree program.

5.7.2 Suggestions for Further Research

Suggestions for continuing and/or future research follow in this section. The suggestions in this section are offered as possible ways of continuing to explore answers to dilemmas that emerged over the course of the study. Such dilemmas include; what kind of impact will curriculum design influenced by community input, such as the Lancaster case, have on a wide variety of university or college campus applications, and, what kind of impact will these altered applications have on the local communities of those institutions? I believe some answers lie in areas that are not fully explored by this dissertation;

community expectations, faculty and administrative commitment, departmental initiatives and responsibilities, and size and scale of both the community and proposed project. The suggestions here provide a direction for university program development that work towards a collaborative integration of community partnering that includes the care and responsibility of the local university or campus initiating the project.

An initial aspect of the research was the interdisciplinary and collaborative nature of the program's development. The integration of community-based input was an important component of the curriculum's design. The curriculum's design evolved as the community advisory members became more active participants in the program's developmental process. Future curriculum studies might include investigation of community resources such as art galleries, libraries, small business associations, and organizations such as rotary clubs or PTA's for their inclusion in interdisciplinary programs for students. These resources may also express and/or reflect the community's expectations for projects being planned. Educational researchers can also benefit from collaboration between communities and local universities. Additional studies may include the investigation of collaborative benefits and challenges for university researchers and community businesses in these types of endeavors.

This study, in part advocated the collaborative efforts between faculty and administration. It demonstrated, on a variety of levels, what could be accomplished by a shared common goal and commitment to shared teaching

and learning. The study contended that the effectiveness of collaborations may be reliant on several key issues: mutual initiation of the program; a sharing of leadership; open and defined communication; and a strong commitment to the endeavor. In the investigation of the collaborative process, this study implies that both faculty and administration need to learn the process of collaboration. Future studies between faculty and administration focusing on collaborative actions and/or better integration of employees might assist in developing flexibility and confidence in such endeavors and encourage them to support future collaborative projects. The collaborative successes or failures of an administration and faculty contribute to the overall impact an institution has on its community.

The study supports the belief that universities need to examine their present program development procedures and should investigate program models that promote a structured collaborative involvement when creating interdisciplinary course offerings and degrees (McDevitt-Stredney, M., 1993; Mckee, R., 1986). A suggestion for universities attempting to incorporate community input by researching existing program models would be to locate institutions that utilize and prioritize their existing university outreach programs (such as Continuing Education, Adult Learning, or University Extensions) for community connections. University or campuses that give priority and value to outreach programs provide them with sufficient tools, funding, and manpower to perform their missions. This is important since the geography of many rural

communities is such that homes, businesses, and community meeting places such as schools or churches are spread miles apart; making communication sometimes difficult and/or outdated. By locating program models that strive to make cultural connections in the community, and by utilizing existing university outreach departments, universities looking to develop programs under a new model will have further success in meeting community and business members in their own environments, therefore providing an equalization of power between the two parties.

By utilizing the suggestions above, universities would provide a measure of security to both university employees and community members directly involved in the new program development process. It would also help to insure that a community's contributions are given value and are taken seriously by the participating university community. This study afforded the community members and university campus members an opportunity to participate in and learn collaborative methods applicable to interdisciplinary curriculum development through new program development. In turn, the community members and faculty became an invaluable resource for the program by providing insight to the needs of the students. The study suggests many avenues for further research in the areas of community and institutional collaboration, program and curriculum development, and interdisciplinary team teaching.

APPENDIX A

OU -L QUESTIONNAIRE & TALLY SHEETS

Ohio University–Lancaster

1570 Granville Pike
Lancaster, Ohio 43130-1097
740/654-6711

Electronic Media

The Lancaster campus of Ohio University has received approval from the Ohio Board of Regents to submit a final proposal to offer an associate degree in Electronic Media. The description of this program states

> A graduate of the Electronic Media program is an entry-level technician who possesses skills for both basic and complex media applications. The degree includes courses that lead to competencies in multimedia and WEB authoring procedures, business training, videography, graphics communication and desktop publishing. Students will also have other skills including visual and data communications, computer usage, journalism, marketing, advertising and public speaking. Experience in the workplace will be provided through internships with local companies. A graduate of the program should be well prepared to provide multimedia services for both small and large companies.

We need your input as a potential employer. Would you please answer the questions below and return this letter in the enclosed, self-addressed postage-paid envelope by May 28, 1998.

	YES	NO	UNCERTAIN
Do you think there is potential student interest in an Electronic Media degree at Ohio University-Lancaster in the south central region?	____	____	____
Do you think businesses, similar to yours, would be interested in Employing an individual with an associate degree in multimedia?	____	____	____
Do you think a degreed electronic media technician would merit Better compensation than an individual who did not have those Qualifications?	____	____	____

What areas of training are needed in your multimedia department?

___multimedia authoring	___web authoring	___business training applications
___viodeographic skills	___visual communications	___graphic communications
___computer skills	___data communications	___journalism
___marketing	___advertising	___public speaking
___desktop publishing		

How many graduates from a program such as this would you employ over the next five years?

What are the most important skills you would prefer this technician process?

Any additional comments? We would appreciate any other information you can give us! Thanks for taking time to complete this questionnaire.

John W. Furlow, Jr.
Assistant Dean

Ohio University–Lancaster

1570 Granville Pike
Lancaster, Ohio 43130-1097
740/654-6711

Electronic Media Survey Tally Sheet

Do you think there is potential student interest in an electronic media degree at Ohio University-Lancaster in the south central Ohio region?

YES 30 NO 1 UNCERTAIN 13

Do you think businesses, similar to yours, would be interested in employing an individual with an associate degree in electronic media?

YES 25 NO 13 UNCERTAIN 6

Do you think a degreed electronic media technician would merit better compensation than an individual who did not have those qualifications?

YES 37 NO 0 UNCERTAIN 7

What types of training are needed in your multimedia department?

MULTIMEDIA AUTHORING	16	WEB AUTHORING	21
BUSINESS TRAINING APPLICATIONS	10	VIDEOGRAPHIC SKILLS	10
VISUAL COMMUNICATIONS	17	COMPUTER SKILLS	32
GRAPHIC COMMUNICATIONS	20	DATA COMMUNICATIONS	11
PUBLIC SPEAKING	10	JOURNALISM	9
DESKTOP PUBLISHING	22	MARKETING	19
ADVERTISING	15		

How many graduates from a program such as this would you employ over the next five years?
Responses range from "none" to 10, with 1 or 2 being the most frequent numbers indicated and reflecting small business employers.

What are the most important skills you would prefer this technician possess?

- That they speak, read, and write the English language correctly!
- Programming, desktop publishing, and marketing
- Solid work ethic
- People skills
- Advertising/Desktop Publishing/Communication Skills
- Dependability
- Professional graphics
- The latest in technology: real world applications of technology
- Public Speaking/marketing
- Personable, good work ethics
- Multimedia authoring
- Depends on job description, but all of the above would be preferred
- A personal motivation to quality and service to customers
- Reading comprehension, language, basic mathematics, personal organization; these skills can equip anyone to learn
- English skills/layout design/computer
- Good people skills
- Good computer skills and communication skills
- Web and Internet related skills will be most used in future
- Verbal and writing skills that are concise and grammatically correct Verbal communication

APPENDIX B

EXAMPLE PROGRAMMING PUBLICATIONS


Cincinnati State - Information Technologies Division
2008 Multimedia Information Design Curriculum - Preliminary - Subject to Approval
Multimedia Information Design
Audio/Video Production Technology
Computer Graphics Technology
Technical Communication Technology
Web Design Technology
ENG 1101 3 English Composition 1
ENG 1102 3 English Composition 2
ENG 1311 3 Technical Writing
ENG 1317 4 Research and Composition
ENG 1018 1 Professional Writing Styles 1
ENG 1019 1 Professional Writing Styles 2
SPE 1024 3 Group Dynamics & Problem Solving
CULT 1040 3 Mass Media and Culture
CULT 1080 3 Introduction to Film Studies
ART 1080 3 Drawing 1
ART 1083 3 Design 1
XXXX var Humanities/Social Science Elective
MAT XXXX 4 Mathematics Elective
BUS 1020 3 Business Law 1
MKT 2900 3 Introduction to Marketing
ACC 2024 3 Accounting for Non-Financial Mgrs
MGT 2040 3 Project Management
DT 1068 3 Database Management: Access
DT 1090 1 Professional Practice
XXXX 3 Business Elective
IT 5201 3 Information Technology Concepts
IT 5205 3 Programming Logic and Methods
IT 5209 4 PC Software Support
IT 5221 3 Introduction to Film Production
IT 5222 3 Audio Production/Editing 1
IT 5223 3 Audio Production/Editing 2
IT 5224 3 Video Production/Editing 1
IT 5225 3 Video Production/Editing 2
IT 5230 3 Film Directing
IT 5237 3 Film Lighting
IT 5239 3 Video/Film Project
IT 5239 1 Video/Film Seminar
IT 5410 3 Cross-Platform Computing
IT 5420 3 Digital Media Concepts
IT 5432 3 Authoring Tools: Director
IT 5433 3 Authoring Tools: Authorware
IT 5441 3 Graphics Tools: Photoshop
IT 5442 3 Graphics Tools: Flash
IT 5443 3 Graphics Tools: Illustrator
IT 5451 3 Animation Tools: 3D Studio
IT 5453 3 Web Development 1: HTML
IT 5454 3 Web Development 2: HTML & Java Script
IT 5455 3 Web Development 3: Java Script & CGI
IT 5456 3 Desktop Publishing 1: QuarkXPress
IT 5471 4 Web Design Project
IT 5571 5 Computer Graphics Design Project
XXXX var Computer Aided Drafting Electives
XXXX 3 Computer Graphics Elective
XXXX 3 Database Applications Elective
XXXX 3 Desktop Publishing Elective
XXXX 3 Programming Elective
TC 5601 3 Introduction to Communication Careers
TC 5610 3 Visual Literacy
TC 5620 3 Usability Assessment
TC 5630 4 Developing Instructional Materials
TC 5633 4 Developing Promotional Documents
TC 5641 3 Technical Editing Methods 1
TC 5642 3 Technical Editing Methods 2
TC 5671 4 Technical Communication Project
TC 5681 3 Technical Communication Seminar
TC XXX3 3 Technical Communications Elective
XXXX var Technical Specialty Requirement
IT 9800 2 Cooperative Education - Information Tech.
IT 9800 2 Cooperative Education - Information Tech.
IT 9800 2 Cooperative Education - Information Tech.
IT 9800 2 Cooperative Education - Information Tech.
Credit Hour Totals
110
110
109
110

SAN FRANCISCO STATE UNIVERSITY

MULTIMEDIA STUDIES PROGRAM

The MSP Program

Overview

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Technology Fundamentals

Information Design & Delivery

Visual Design

2D Graphics

3D Arts

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University College/Division of Continuing Education
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(508) 934-2400

The University uses multiple mailing lists. If you receive a duplicate copy, please share it with a friend.

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UMass Lowell

The Certificate Program in Hazardous Waste Management is designed to provide environmental technicians, engineers, managers, and those working in the environmental field with an introduction to regulations and treatment technologies. Course work covers basic environmental chemistry, state and federal environmental regulations, various types of groundwater contamination and suitable technologies to abate hazardous waste contamination.

Required Courses:
15.280 Industrial Waste Treatment
15.340 Hazardous Waste Management
15.396 Groundwater Resources
41.367 Environmental Law & Regulations
86.131 Environmental Chemistry I

Electives (Choose 3):
15.388 Pumps & Compressors
15.420 Solid Waste Management
15.492 Water/Wastewater Plant Management
86.132 Environmental Chemistry II
40-Hour OSHA "Hazwopper" Training

Internet Systems Administration

With the emergence of new Internet servers and the rapid proliferation of Internet sites throughout the country, there is a need for personnel trained in the new technologies to maintain and administer these sites. Students completing the Certificate Program in Internet System Administration may pursue careers as Internet operators, system administrators, system librarians, or web masters.

Required Courses:
91.271 TCP/IP Programming
91.371 Internet Systems Administration
91.372 Managing Internet Information Systems
92.311 Introduction to the UNIX Operating System

Electives (Choose 2):
91.373 HTML Development and CGI Programming
91.470 Topics on the Internet
91.471 Internet Practicum/Internship
91.472 Security Issues on the Internet

Land Surveying

Land surveyors measure distances, directions, and angles between points and elevations of points, lines, and contours on the earth's surface. They record results, verify the accuracy of data, and prepare plans, maps, and reports. Surveyors who establish official boundaries must be licensed by the state in which they work. The Certificate in Land Surveying can prepare students for licensure in Massachusetts when combined with additional state requirements.

Required Courses:
15.123 Surveying I
15.124 Surveying II
15.262 Legal Aspects of Land Surveying

Manufacturing)
23.402 Engineering Measurement Laboratory
23.427 Plant Layout and Materials Handling
23.474 Design for Manufacture
23.480 CADes (Computer-Aided Design)

Multimedia Applications

The multimedia industry is booming and promises to become one of the most lucrative industries of the century. Individuals with the skills and knowledge to communicate information using the new technology will flourish in this emerging industry. The Multimedia Certificate Program at UMass Lowell is one of the largest, most comprehensive programs of study in multimedia available in New England. It draws upon the expertise of several departments, colleges, and centers within the University, as well as outside expertise from industry professionals.

Required Courses:
90.230 Introduction to Multimedia
90.231 Graphics for Multimedia
90.232 Desktop Video Production
90.233 Multimedia Authoring Software
90.234 Designing & Developing Interactive Media

Electives (Choose 2):
42.221 Writing for Interactive Media
70.262 Digital Imaging & Photography
70.264 Computer Graphics & Illustration
70.291 Introduction to Graphic Design
70.376 Computer Animation: 2D & 3D
90.235 Programming for Multimedia
90.236 Instructional Design for Multimedia
90.237 Topics in Multimedia
90.238 Designing Multimedia for the World Wide Web
90.239 Multimedia Scripting Using Macromedia Director's Lingo
90.301 JAVA Programming
91.113 Exploring the Internet

New This Fall!

Nurses, teachers, counselors, and others interested in nutrition may opt for an alternate track to the Nutrition Certificate Program designed to help round out their knowledge of nutrition. Call (508) 934-2470 for a list of new courses, or look for it on the Web at http://www.uml.edu/DCE

Nutrition

This certificate program serves four distinct audiences: 1) students in UMass Lowell's College of Health Professions who are not eligible to obtain a minor in a related health field, 2) students with associate's degrees in science or clinical areas, 3) students in science-related bachelor's degree programs seeking employment opportunities in health-related industries and community-based programs, and 4) individuals with no previous experience who would like to use the certificate as a stepping-stone towards a formal degree in Nutrition.

WASHBURN UNIVERSITY (TOPEKA, KANSAS)

Interactive Multimedia Technology

Interactive Multimedia Technology Associate Degree
Macromedia Web Design Series I Certificate

The Interactive Multimedia Technology program provides the community with skilled professionals who can create and assemble multimedia products for corporate interactive training, advertising, and marketing purposes. Graduates are able to develop and produce scripts and computer animation, and apply multimedia technology to assemble graphics, text, sound, and video into meaningful productions.

The program supports an industry need to provide multimedia professionals to work in the ever-expanding market of integrated and interactive media communications, with a growing emphasis in Internet World Wide Web page production.

The Interactive Multimedia Technology is designed to impart four critical skills to its graduates:

- Design
- Scripting (source code and application). The types of scripting include: HTML, XML, DHTML, ASP, Cold Fusion, CSS, Java and Javascript
- Familiarity with various design-oriented application programs including: Adobe Photoshop, ImageReady, Premiere, Macromedia Freehand, Flash, Dreamweaver, Director, and Metacreations Infini-3D.
- Experience in both the Macintosh and Windows platforms

By mastering these four disciplines, program graduates will be able to go beyond basic design and layout to complete the "big picture" regarding hierarchical site structure and flowcharting. As a result, program graduates are ready to become innovative professionals who can cross cultural, aesthetic and technical boundaries.

The jobs available in interactive multimedia are varied. Typical job possibilities for program graduates include: multimedia technician; multimedia specialist; multimedia developer; media specialist; instructional design technician; computer graphic artist; 3D computer animator; multimedia illustrator; desktop media publisher; interface designer; animator; script integrator; digital journalist; and presentation artist.

Upon completion of the Associate Degree program in Interactive Multimedia Technology, the graduate will be able to:

- Explain the use and function of various multimedia components.
- Define and implement hypertext and hyperlinks.
- Create navigation controls.
- Edit audio and video digital media.
- Formulate electronic imaging and image processing solutions.
- Develop interactive multimedia presentations for distribution on CD-ROM disks.
- Produce multimedia authoring, bringing together text, graphic animation, screen images, video, and audio.
- Plan and implement an interactive multimedia project.

The Macromedia Web Design Series I Certificate includes a series of industry-specific "skill-builder" courses targeted for the multimedia professional. These courses parallel the manufacturers' "Authorized Training" curricula, utilizing their instructional design and learning materials (instructor and/or student guides).

Interactive Multimedia Technology Associate Degree

COURSE		CR
Quarter 1		
ENGL 101	Beginning Composition	3
CPT101	PC Applications 1	3
MMPT 101	The World of Multimedia	4
MATH 102	Algebra I	4
HUM1xx	CIV I/II/III or Am. History I, II, III	5
TOTAL CREDIT HOURS		**19**
Quarter 2		
ART 122	Two-Dimensional Design	5
ENGL 102	Essay & Research	3
GRPH 112	Introduction to Computer Graphics	4
MKTG 123	Business and the Internet	3
MMPT 111	The Digital Revolution	4
TOTAL CREDIT HOURS		**19**
Quarter 3		
ART 230	Color Composition	5
COMM 105	Speech	3
GRPH 131	Design & Typography	4
GRPH 251	Electronic Imaging	5
TOTAL CREDIT HOURS		**17**
Quarter 4		
ENGL 208	Communication for Mass Media	3
BMGT 257	Project Management	3
MMPT 211	Advanced Scripting	4
MMPT 216	Dynamic Graphics	4
MMPT 251	Creating Vector Graphics	4
TOTAL CREDIT HOURS		**18**
Quarter 5		
MMPT 236	Designing in 3D Dimension	4
MMPT 237	Web Animation	4
MMPT 261	Controlling Web Page Layout	4
MMPT xxx	Technical Elective	4
SSCI 10x	Social Science 101, 103, 105, or 106	5
TOTAL CREDIT HOURS		**21**
Quarter 6		
MMPT 236	Modeling	4
MMPT 237	Animation Development	4
MMPT 251	Multimedia Practicum	4
MMPT 252	Multimedia Seminar	2
TOTAL CREDIT HOURS		**14**
TOTAL DEGREE CREDIT HOURS		**108**
ELECTIVES		
ART 111	Fundamental Concepts of Art	5
MMPT 217	Digital AV Editing	4
MCT 221	LAN	4
GRPH 111	Black and White Photography	4
MUS 120	Electronic Music	4

PROGRAMS OF STUDY

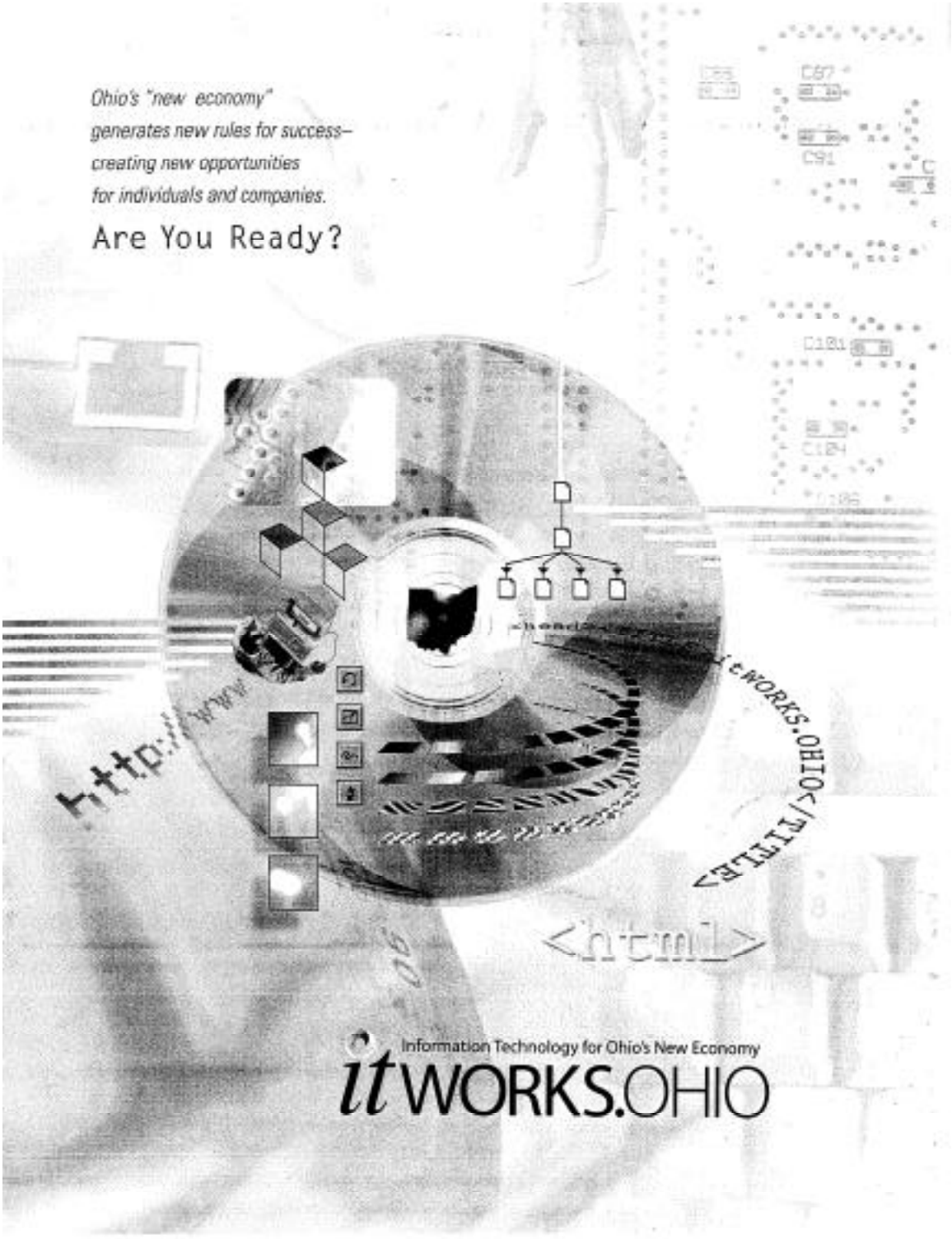
NASHBURN U.

Macromedia Web Design Series I Certificate

Quarter 1		
MMPT 280	Flash Fundamentals	2
MMPT 281	Flash/Advanced	2
TOTAL CREDIT HOURS		**4**
Quarter 2		
MMPT 282	Fireworks	2
TOTAL CREDIT HOURS		**2**
Quarter 3		
MMPT 283	Dreamweaver 3 Fundamentals	2
MMPT 284	Dreamweaver 3/Advanced	2
TOTAL CREDIT HOURS		**4**
TOTAL CERTIFICATE CREDIT HOURS		**10**

APPENDIX C

OHIO DEPARTMENT OF EDUCATION TECHNOLOGY PUBLICATION


Ohio's "new economy"
generates new rules for success–
creating new opportunities
for individuals and companies.
Are You Ready?
http://www
itWORKS.OHIO</TITLE>
<html>
Information Technology for Ohio's New Economy
itWORKS.OHIO

By the year 2000, 65 percent of Ohio's new jobs will require high-tech skills.

SOURCE: U.S. BUREAU OF LABOR STATISTICS

More than 50,000 information technology jobs will be created in Ohio during the next 10 years. But many of these jobs will remain vacant – and employment opportunities will be lost – because of a shortage of skilled workers.

SOURCE: U.S. DEPARTMENT OF COMMERCE

Since the 1970s, productivity in business sectors that have invested heavily in computers and technology has grown three times faster than in sectors that have invested less heavily.

SOURCE: THE CONFERENCE BOARD

Median weekly earnings for computer systems analysts and computer programmers have been consistently higher than the average for all workers since the early 1980s.

SOURCE: U.S. DEPARTMENT OF COMMERCE

Students learn more when given the opportunity to apply knowledge and skills to real world challenges. But in too many of Ohio's schools and colleges, that opportunity is absent.

For Ohio's students, educators, employers and communities, there is only one question.

Are You Ready?

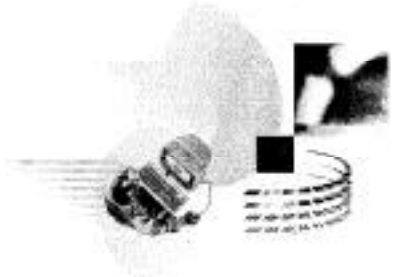
Information Technology for Ohio's New Economy

it WORKS.OHIO

is Ohio's response to the information technology workforce shortage. Built around a comprehensive set of IT competencies that are grounded in core academic subject areas, it is a strategy for ensuring that Ohio's workers and businesses can compete – and succeed – in the *New Economy* of the 21st century.

Information Technology (IT) – the design, development, implementation, support, or management of computer-based information systems, particularly software applications and computer hardware – spans traditional economic sectors. While a significant percentage of information technology employees provide support for computer and data processing services, the need for information technology workers cuts across nearly all industries, including manufacturing, finance, insurance, real estate, health care and government.

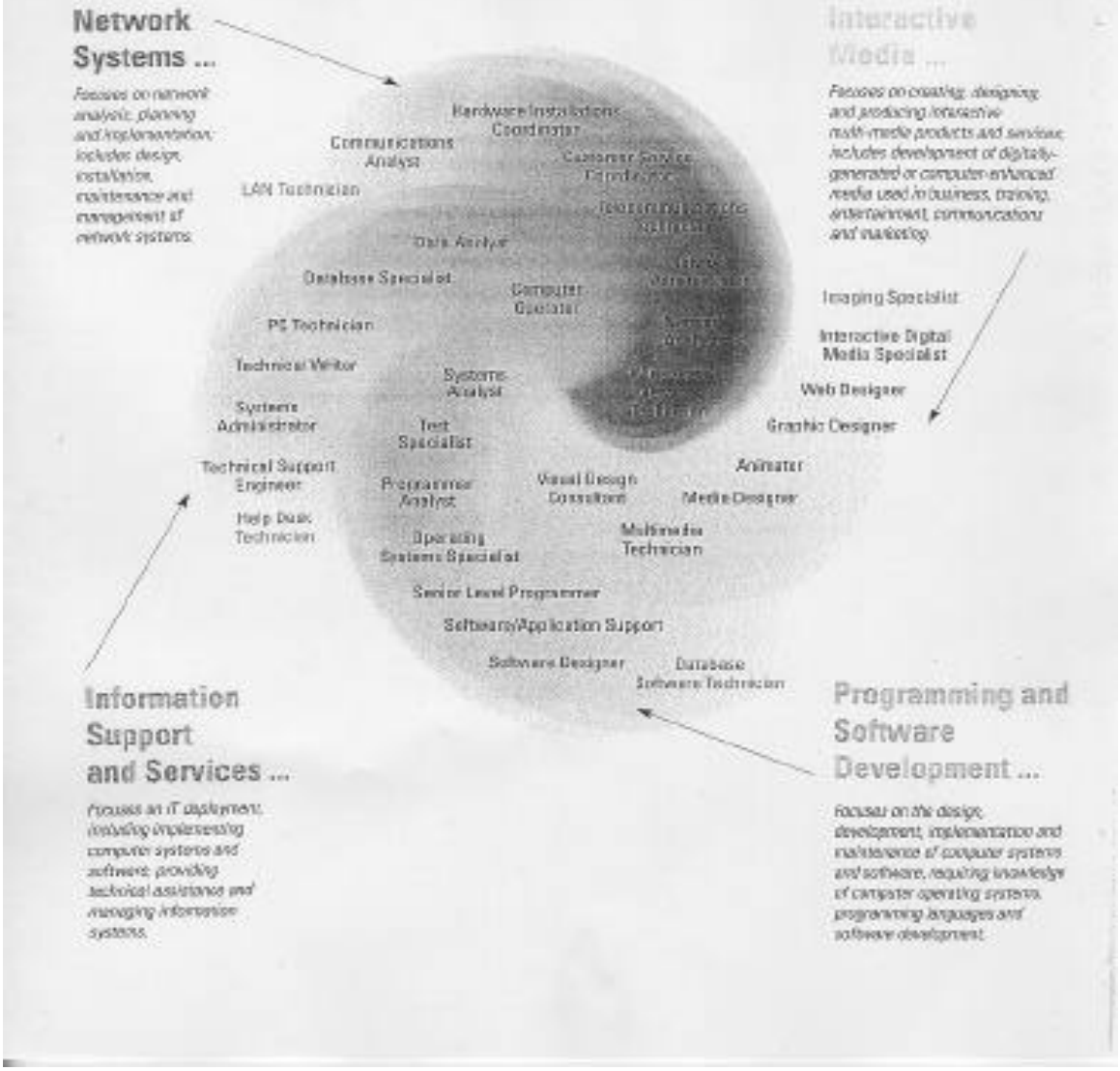
Ohio's New Economy. It is a metal casting firm in Cleveland that uses computer-aided manufacturing technology to cut costs and reduce waste. It is a farmer in Fremont who drives a tractor with a global satellite positioning system. It is a hospital in Cincinnati that uses software to track the prescription of medications and support its cost containment efforts. It is a distribution center in Columbus that uses the Internet to take orders from customers around the world.



"Ohio is faced today with an information revolution, which promises to have an even greater impact on society than the industrial revolution almost a century ago."

William E. Kirwan
President
The Ohio State University

IT WORKS.OHIO is designed to provide state-of-the-art training in IT, and to ensure that students educated in Ohio's schools, colleges and universities stay at the leading edge of a rapidly moving wave of information technology. This initiative is built around a comprehensive set of IT skills that is grounded in core academic subject areas. It will be supported by ongoing professional development opportunities for teachers, and by education-business partnerships that allow students to apply their knowledge and skills in real world environments. It is based on a curricular framework that features four occupational cluster areas that reflect the job opportunities and skills required for Ohio's information technology workers.



*it*WORKS Is Needed

Information technology is here. More is coming and Ohio is never going to be the same. In fact, IT is now so pervasive that some economists argue that it is the driving force in our economy, and that technological change will determine the winners and losers among industries, companies, occupations and individuals.

Yet, in Ohio and throughout the nation, there is a serious shortage of skilled IT workers. And the explosive demand for skilled IT employees is projected to continue in the years to come.

- The U.S. Bureau of Labor Statistics estimates that employment for key IT professionals more than doubled from 1986-1996. The pool of IT workers has not kept pace with the explosive demand. In fact, in many IT sectors, skilled workers are in short supply and companies are struggling to fill the positions available – particularly at entry levels.
- A national survey recently conducted by the Information Technology Association of America (ITAA) found that 346,000 core-skill IT positions have gone unfilled because of an inadequate supply of qualified workers.
- Recent projections indicate that IT occupations nationally will be the fastest growing occupations in the years 1996-2006. The U.S. Department of Commerce estimates that 1.3 million new IT jobs will emerge over the next decade.
- Ohio employment projections depict a similar need. The Ohio Bureau of Employment Services estimates that IT-related occupations will be among the state's fastest growing occupations during the first decade of the 21st century.
- A rapid response to Ohio's current and future demand for a skilled IT workforce is essential for the state's economic vitality. Failure to respond has the very real potential of adversely affecting the state's ability to both retain and attract globally competitive companies representing all industries.
- Ohio's schools, colleges and universities must play a pivotal role in responding to this need by preparing a skilled pool of future IT professionals.

*it*WORKS Will Be Implemented

This initiative will be implemented through an integrated delivery system that provides opportunities for new and challenging information technology programs and courses in Ohio's secondary schools, colleges and universities. Career-Technical Education, Tech Prep, and adult education will be enhanced and expanded through the use of the IT curriculum.

Critical to the implementation of *it*WORKS.OHIO will be:

- Continued curriculum development and fresh instructional approaches.
- Ongoing professional development for teachers and administrators.
- Business-education partnerships that build public awareness and support student recruitment.
- Student credentialing through a business-driven certification process.

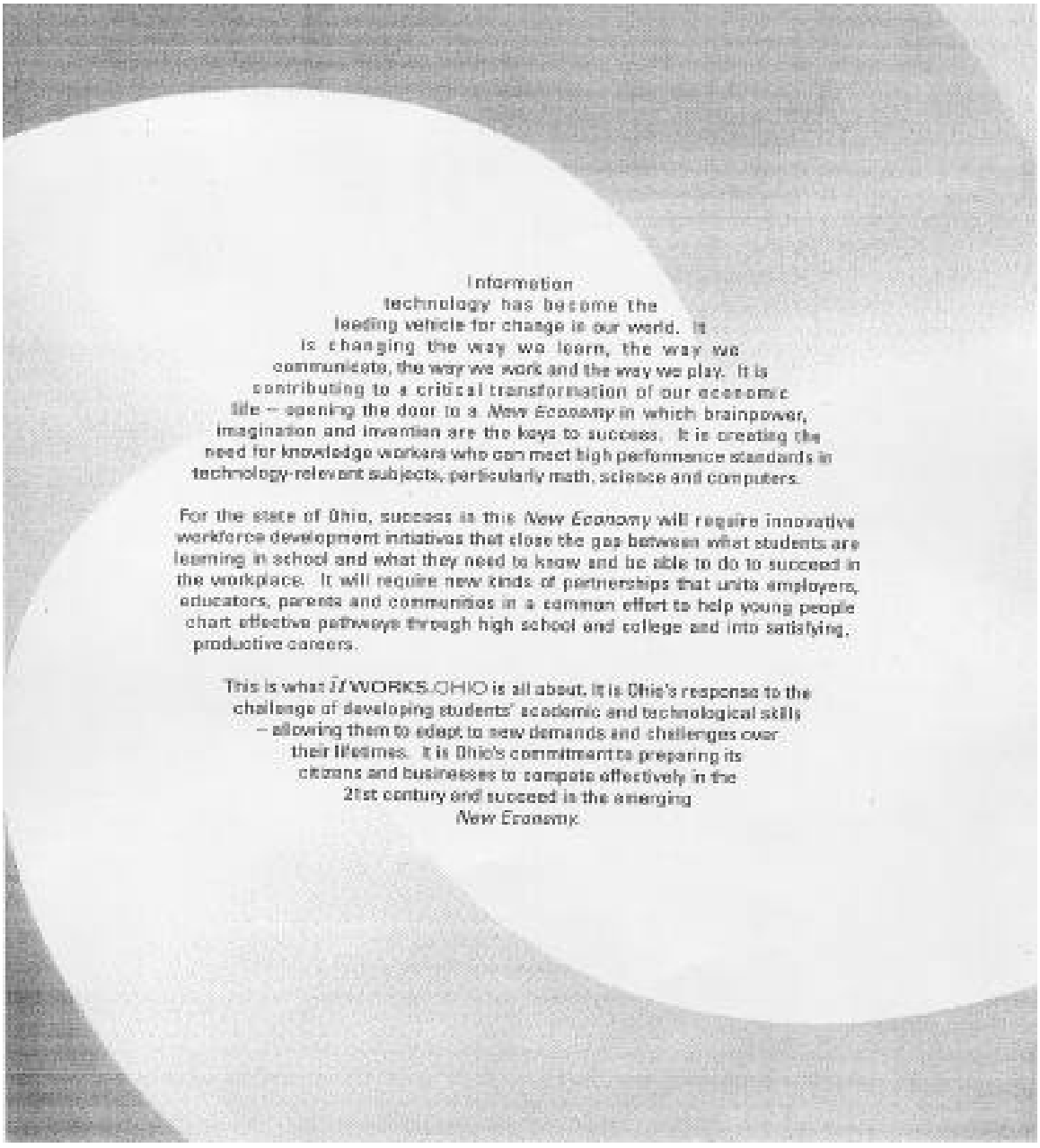
_it_WORKS
for students who are looking for ways to connect their education to future career opportunities.

_it_WORKS
for parents who want their children to get a quality education that is grounded in core academics, yet prepares them for a lifetime of employment and educational opportunities.

_it_WORKS
for educators who want their students to succeed in the classroom and the workplace – and who know that students learn more when given the opportunity to apply knowledge and skills to real world situations.

_it_WORKS
for employers who are looking for skilled workers who can meet the needs of a high-performance, information-intensive workplace.

_it_WORKS
for all Ohioans who understand that technological innovation has been responsible for much of the state's economic growth in recent years – and that information technology is responsible for the renewal and formation of many of Ohio's most successful companies.


Information
technology has become the
leading vehicle for change in our world. It
is changing the way we learn, the way we
communicate, the way we work and the way we play. It is
contributing to a critical transformation of our economic
life – opening the door to a *New Economy* in which brainpower,
imagination and invention are the keys to success. It is creating the
need for knowledge workers who can meet high performance standards in
technology-relevant subjects, particularly math, science and computers.
For the state of Ohio, success in this *New Economy* will require innovative
workforce development initiatives that close the gap between what students are
learning in school and what they need to know and be able to do to succeed in
the workplace. It will require new kinds of partnerships that unite employers,
educators, parents and communities in a common effort to help young people
chart effective pathways through high school and college and into satisfying,
productive careers.
This is what JJ WORKS.OHIO is all about. It is Ohio's response to the
challenge of developing students' academic and technological skills
– allowing them to adapt to new demands and challenges over
their lifetimes. It is Ohio's commitment to preparing its
citizens and businesses to compete effectively in the
21st century and succeed in the emerging
New Economy.

"Today we stand on the doorstep of the next frontier. This time, the frontier is not the western edge of America or the cutting edge of industry. Our frontier is knowledge and technology – a place where Ohio... must be a leader among states and nations."

Bob Taft
Governor
State of Ohio

itWORKS.OHIO

was developed under the auspices of the Joint Council of the Ohio Board of Regents and the State Board of Education. It is a broad-based educational response to Ohio's need for a skilled information technology workforce. It is intended to assist educators and their business partners in developing courses and implementing training programs that prepare students for successful information technology careers.

Formed in 1998, an Ohio Information Technology Task Force was instrumental in developing an action plan built around a set of IT skill standards that were generated using the Ohio Tech Prep model for curriculum development. Representatives from a broad cross-section of Ohio businesses played a critical role in this effort by defining the vision and scope of information technology, and by identifying essential and recommended skills for current and future information technology professionals.

Secondary and post-secondary educators representing schools and colleges throughout Ohio identified when in the educational process and to what depth those skills identified by business should be addressed. Using Ohio's state model curriculum, critical academic skills needed to support technical skills were identified.

Ohio Board of Regents
Roderick G. W. Chu, Chancellor
30 East Broad Street
Columbus, Ohio 43215
614/466-6000

Ohio Department of Education
Susan T. Zelman, Superintendent
65 South Front Street
Columbus, Ohio 43215
614/466-3891

www.itworks-ohio.org

APPENDIX D

TECH TALK NEWSLETTER AND

EXAMPLE TECH PREP PATHWAY MODEL

TECH TALK

INSIDE THIS ISSUE

Published "just for the tech of it" *Special Issue – Winter 2000*

WHAT IS TECH PREP?

- An exciting educational program that prepares students for high-technology careers requiring a two-year or four-year college degree.
- Aimed at meeting the needs of students in the academic middle.
- A seamless program, starting in grade 11 and ending with an Associate degree, with options to begin a career or continue on for a Bachelor's degree.
- A partnership between local school districts, Columbus State Community College, Ohio University – Lancaster, Ohio University – Chillicothe, other colleges and universities, and employers.
- College prep academics, technology applications and skills to make students employable even while still in high school.
- A program that gives students real world experiences.

TECH PREP PROGRAMS AND CAREER CLUSTERS

- In Ohio, all students are encouraged to choose an educational path based on career directions and goals.
- All Tech Prep programs belong to one of the following six clusters:
  1. Agriculture & Environment
  2. Arts & Communication
  3. Business Management
  4. Health
  5. Human Services
  6. Industrial & Engineering Systems

Don't miss your chance! Sign up now!

THE TECH PREP ADVANTAGE

- Only 21 percent of U.S. jobs in 2005 will demand a four-year degree. Some say that number is as low as 15 percent. However, many of the best jobs will require at least some college.
- Tech Prep provides a smart way to go to college while leaving the options open to continue on for a four-year degree or to move straight into a fulfilling technology career.

Tech Talk News

Successful Times

January 2000

SUCCESS IN SOUTH-WESTERN JUST KEEPS ON ROLLING

Whether it's the thrill of computers, the challenge of health careers, the lure of big business, or the roar of an engine, South-Western City Schools offers a full menu of Tech Prep programs.

Tech Prep programs are offered at Hayes Technical, Franklin Heights, Grove City, and Westland High Schools. "We're very proud of the programs we've built and the success of our graduates," said Sherry Minton, Career-Technical Coordinator for the district. "Our students, like all Tech Prep graduates, are well-prepared to succeed on the job and at the college level."

Tiffany Gaines is a good example of Tech Prep success in action. A graduate of Hayes Technical High School (home school – Westland) in the Multi-Competency Health Care Technologies Tech Prep program, Gaines is now enrolled at Columbus State Community College thanks to an all-tuition paid Tech Prep scholarship. She works as a home health aide and as a State Tested Nurses Aide (S.T.N.A.) at Franklin Woods Rehabilitation Center. She credits Tech Prep for much of her success. "Tech Prep helped prepare me for work and college. I'm already using so many of the things they taught me," Gaines said.

To students considering the Tech Prep program and for those who want to continue on to college, Gaines has this bit of advice: "Take your high level math and science classes. Prepare to study. You have to be self-motivated to succeed. But you can do it."

COLLEGE VISITATION DAYS

Don't miss your opportunity to visit one of the three Heart of Ohio Tech Prep Consortium college partner campuses. Visitation days are coming up soon. Talk to your Tech Prep coordinator or guidance counselor about signing up now!

Columbus State Community College
January 28, February 18, March 17, April 14 & May 12
9:30 a.m. to 1:30 p.m., lunch available in cafeteria

Ohio University – Lancaster
April 7 & 14, 9 a.m. to 2:00 p.m., includes lunch

Ohio University – Chillicothe
March 17, 9 a.m. to 12:30 p.m., includes lunch

DREAM IT

Heart of Ohio Tech Prep Consortium

INFORMATION TECHNOLOGIES PROGRAM MODEL

Tech Prep Competencies for Secondary and Associate Degree Programs

Pending approval of the Consortium Board of Directors, March 24, 2000

❑ Approved

Heart of Ohio Tech Prep Consortium
Central Office, c/o Columbus State Community College
550 E. Spring Street; Columbus OH 43215
614/287-5319

Heart of Ohio Tech Prep Consortium

INFORMATION TECHNOLOGIES
March 2000

This list of competencies provides a consortium blueprint for a seamless secondary-through-associate degree Tech Prep curriculum to prepare students for careers in Information Technologies. The list is based on the itWORKS.Ohio Technical Competencies Profile (TCP) approved in 1999 by the State Tech Prep Office, Ohio Department of Education and Ohio Board of Regents. To align the consortium's program model with the State TCP, the consortium convened teams of IT educators (secondary and higher education) and employers to review the TCP for local relevance. As a result, some competencies may have one or more of the following changes: (1) revision of the educational level at which a competency is introduced or taught to proficiency; (2) annotation of a competency prescribed by the State model but with which local partners expressed a concern; and (3) where appropriate, addition of competencies deemed valuable for IT employment within the consortium's service area (i.e., "local enhancements").

This list consists of IT curriculum units and competencies, only. To view the specific competency builders, instructors and other partners are directed to the State Tech Prep competency profile for Information Technologies at www.itworks-ohio.org. The website also offers information about equipment and software required or recommended for Tech Prep IT instruction.

The consortium filed a new State program application for this program model in October 1999.

Secondary IT programs in the Heart of Ohio Tech Prep Consortium prepare students for at least one of the four State-approved IT strands. High school graduates are prepared for entry into the following college Tech Prep pathways (as of March 2000):

Computer Programming Technology (NS & PSD strands) ..... Columbus State Community College

Computer Science Technology (ISS, NS, & PSD strands) ..... Ohio University-Lancaster

Graphic Communication Technology (IM strand) ..... Columbus State Community College

Microcomputing Technology (ISS strand) ..... Columbus State Community College

Multimedia Production Technology (IM strand) ..... Columbus State Community College

Multimedia Production Technology (IM strand; pending OBR approval) ..... Ohio University-Lancaster

Occupational Area Definitions

Interactive Multi-Media Development (IM)

Students training in the area of interactive multi-media will become competent in creating, designing, and producing interactive multi-media products and services. This program of study emphasizes the development of digitally-generated or computer-enhanced media. Students will use multi-media technology to develop products/programs for business, training, entertainment, communications and marketing.

Essential skill areas include but are not limited to:

Animation
Media Design
Interactive Digital Media
GUI Interfaces
Instructional Application
Application Design
Authoring Languages
Audio/Visual Production
Digital Imaging

Sample list of job titles:

Animator
Imaging Specialist
Audio/Visual Specialist
Media Designer
Multi-Media Specialist
Production Assistant
Interactive Digital Media Specialist
Virtual Reality Designer
Web Designer
Graphic Designer
Multi-Media Programmer
Graphics Technician
Visual Design Consultant
Web Content Designer
Instructional Designer
Writer
Project Manager
Multimedia Technician
Quality Assurance Technician

Information Technology

State Competency Profile Matrix

Occupational Area				Education		Unit/Competency
ISS	NS	PSD	IM	HS	AD	
		Unit 1				**Information Technology Basics**
E	E	E	E	P		Demonstrate basic knowledge of the history of information technology
R	E	E	E	I	P	Demonstrate knowledge of the impact of information technology on society
E	E	E	E	P		Demonstrate knowledge of the hardware components associated with information systems
E	E	E	E	P		Demonstrate knowledge of the classes of software associated with information systems.
E	E	E	E	P		Identify career opportunities in information systems
E	E	E	E	P		Explore the future of information technologies
		Unit 2				**Computer Applications**
E	E	E	E	P		Create documents using word processing software
E	E	E	E	P		Create relational databases
E	E	E	E	P		Create spreadsheets
E	E	E	E	P		Perform desktop publishing functions
E	E	E	E	P		Create presentations using presentation graphics software
E	E	E	E	P		Integrate computer applications
		Unit 3				**Data Communications**
E	E	E	E	P		Demonstrate knowledge of basic data communications components and trends
E	E	E	E	P		Access information using electronic sources
E	E	E	E	P		Demonstrate proficiency with electronic mail
		Unit 4				**Programming Theory *(Preference is Basic, Pascal, or Lisp)***
E		E		P		Demonstrate knowledge of programming language concepts
E		E		P		Apply the process of algorithm and structured code development
R		E		P		Demonstrate knowledge of the stages of program development
E		E		P	R	Demonstrate knowledge of technical documentation associated with software development
		Unit 5				**Applied Programming Languages**
						Each competency must be addressed in at least two of the following language types:
						Structured/Procedural (e.g., Basic, C, Visual Basic, RPG, COBOL)
						Object-Oriented (e.g., Java , C++) *(Java Script for Interactive Media)*
						Scripting/Control (e.g., JLL, Perl) *(Perl for Interactive Media)*
						Data Description (e.g., IOL, SQL)
						Machine Level (e.g., Assembly)
						Mark-up (e.g., HTML, SML, SGML) *(HTML for Interactive Media)*
E		E	E	P		Apply computational and logical operations
E		E	E	I	P	Apply techniques for building applications
E		E	E	I	P	Apply language specific programming techniques
E		E	E	I	P	Debug programs

E = Essential
R = Recommended

I = Introduce
P = Proficient
R = Reinforce

Occupational Area				Education		Unit/Competency
ISS	NS	PSD	IM	HS	AD	
			Unit 6			Computer User Support
E	E	E		I	P	Analyze technical support needed
E	E	E		I	P	Perform customer service
E					P	Provide support and training
			Unit 7			Software development
R		E		I	P	Demonstrate knowledge of software development methodology
R		E		I	P	Demonstrate knowledge of basic software systems design
R		E		I	P	Develop software requirements/specifications
R		E		I	P	Code programs
R		E		I	P	Execute software testing, validation, change control, defect tracking, and documentation
R					I	Execute software product release and follow-up
R		R			I	Complete team software engineering project
R		R			I	Apply computer simulation techniques
R		E		I	P	Demonstrate knowledge of date structures
R		R			I	Demonstrate knowledge of knowledge-based (expert) systems
R		R			I	Demonstrate basic knowledge of artificial intelligence (AI)
R		R			I	Demonstrate basic knowledge of computational complexity (computability and unsolvability)
R		R			I	Apply basic knowledge of parallel computing
			Unit 8			Software Systems Management
E	E	E	R	P		Install/configure software programs
E	R	E	R	I	P	Perform configuration management activities
E	R	E	R	I	P	Evaluate application software packages
			Unit 9			Appreciation of the Arts
			R	I	IR	Demonstrate knowledge of and an appreciation for music
			R	I	IR	Demonstrate knowledge of and an appreciation for the visual arts
			R	I	IR	Make use of the interaction between music and visual art
			R	I	IR	Demonstrate knowledge of and an appreciation for literature
			Unit 10			Graphic Design Fundamentals
			E	P		Demonstrate basic technical art skills (traditional and electronic)
			E	P		Demonstrate knowledge of design principles
			E	I	P	Demonstrate design skills
			E	I	P	Demonstrate knowledge of available graphics software programs
			E	I	P	Create computer graphics
			E	P		Apply knowledge of typography

E = Essential
R = Recommended

I = Introduce
P = Proficient
R = Reinforce

Occupational Area				Education		Unit/Competency
ISS	NS	PSD	IM	HS	AD	
				Unit 11		**Photography**
			R	I	IR	Operate photographic equipment
			R		IR	Demonstrate knowledge of photographic language
				Unit 12		**Digital Media Design**
			E	I	P	Create visual design guidelines
			E	I	P	Apply functional design of digital media to technical presentations
			E	P		Demonstrate proficiency in the use of digital imaging techniques and equipment
			E	I	P	Manipulate images
			R	I	P	Demonstrate knowledge of the basic principles of 3-D modeling
			R	I	P	Create 3-D models
			R		I	Perform advanced 3-D image generation techniques
			R	I	P	Demonstrate knowledge of the basic principles of animation
			R	I	P	Animate characters
			R	I	P	Create 3-D environments
			R	I	P	Demonstrate knowledge of virtual reality
				Unit 13		**Video/Film Production**
			E	P		Interpret the relationship between the creative and craft skills required for film/video production
			R		P	Perform technical support tasks for a video production
			R	P		Perform camera-related tasks for a video production
			R	I	P	Design scenery for a video production
			E	I	P	Operate video cameras
			E	I	P	Identify video formats
			E	I	P	Perform editing operations
			E	I	P	Digitize video
				Unit 14		**Audio Production**
			R	I	P	Demonstrate knowledge of audio recording and sound reinforcement
			E	I	P	Demonstrate knowledge of audio production
			R	I	P	Create a sound track
				Unit 15		**Internet**
E	E	E	E	P		Demonstrate basic knowledge of the Internet
E	E	E	E	I	P	Demonstrate advanced knowledge of the Internet
E	E	E	E	P		Access the Internet
E	E	E	E	P		Utilize Internet services

E = Essential
R = Recommended

I = Introduce
P = Proficient
R = Reinforce

Occupational Area				Education		Unit/Competency
ISS	NS	PSD	IM	HS	AD	
			Unit 16			**Web Page Design**
E	R	E	E	P		Demonstrate knowledge of web page basics
R		E	E	P		Demonstrate knowledge of Internet programming basics
R		E	R	I	P	Apply knowledge of basic web programming
R		R	R		I	Apply knowledge of web hosting
		E	R	I	P	Create/maintain a basic Internet programming document
R		E	E			Format page layout
R		E	E			Add audio and video to a web page
R		E	E			Link documents
			Unit 17			**Interactive Multimedia Production**
			E	P		Demonstrate knowledge of interactive media
			E	P		Produce interactive media as a member of a development team
			E	P		Pursue interactive media career opportunities
			E	P		Develop project concept proposal
			E	P		Meet Client needs
			E	P		Develop storyboards to communicate ideas
			E	P		Develop flowchart/navigational blueprints
			E	P		Write scripts
			E	I	P	Combine media elements to produce an interactive multimedia
			E	I	P	Create interactive media applications
			R	P		Maintain interactive media equipment
			R	I		Test/evaluate the functionality and content of the project
			Unit 18			**Hardware Design, Operation, and Maintenance**
R	E			P(NS)	P(ISS)	Demonstrate knowledge of hardware standards
R	E		R	I	P	Analyze the computer site environment
E	E	R	R	I	P	Demonstrate knowledge of computer architecture and processor types
R	R	E		I	P	Demonstrate basic knowledge of computer system architecture
E	E	R	R	I	P	Demonstrate knowledge of CPU environments
E	E	R		I	P	Demonstrate a basic knowledge of connectivity devices
E		R		I	P	Explain operation of microprocessor system
E		R	R	I	P	Demonstrate knowledge of peripheral equipment
R		R			I	Design computer systems
E		R	R	I	P	Install computer system (e.g., monitor, keyboard, disk drive, and printer)
E		R	R	I	P	Troubleshoot computer systems

E = Essential
R = Recommended

I = Introduce
P = Proficient
R = Reinforce

APPENDIX E

PROPOSED TWO YEAR PLAN OF STUDY

Curriculum

1. List all courses that will be required, electives permitted, "field" requirements, the number of hours required for completion of the program, the sequencing of courses over the typical student's career, and the policy proposed on accepting transfer of credit from other institutions or other programs at Ohio University. Indicate which of the courses are newly proposed.

PROPOSED PLAN OF STUDY:
Electronic Media (97-98 Credit Hours)

FIRST YEAR

Degree Layout

Quarter	Course	Description	Credit Hours
Fall	TIER I	Quantitative Skills	4
	CTCH 125	Intro to Computers	4
or	CS 120	Computer Literacy	
or	BMT 200	Intro to Business Computing	
	ART 110	Seeing & Knowing Visual Art	
	EM 101	Introduction to Electronic Media	3
	EM 289	Radio / TV / Multimedia Workshop	1
		TOTAL:	**16**
Winter	EM 212	Intro to Multimedia Production (NC)	4
	TIER I	English Composition	5
	ART 116	Drawing I or other approved	4
	INCO 103	Public Speaking	4
	EM 289	Radio / TV / Multimedia Workshop	1
		TOTAL:	**18**
Spring	EM 216	Intro to TV (Multimedia Video) Production	4
or	TCOM 200C	Video Production	
	JOUR 133	Precision Language for Journalism	4
	EM 215	Introduction to Web Design (NC)	4
	CTCH 160	Data Communications	4
	EM 289	Radio / TV / Multimedia Workshop	1
		TOTAL:	**17**

SECOND YEAR

Quarter	Course	Description	Credit Hours
Fall	CTCH 127	Intro to Website Management (NC)	4
	OTEC 200	Desktop Publishing I	3
	Tier II	Social Sciences	4
	EM 257	Advertising Broadcast Cable Media	4
or	BMT 140	Concepts of Marketing	
	EM 289	Radio /TV / Multimedia Workshop	1
		TOTAL:	**16**
Winter	EM 218	Digital Media (NC)	4
	VICO 120	Intro to Visual Communication	4
	OTEC 201	Desktop Publishing II	3
	ART 113	Three-Dimensional Studies	4
or	AH 237	Photo History	
	EM 289	Radio / TV / Mul. M Workshop	1
	EM 290	Practicum	1
		TOTAL:	**17**
Spring	BMT 290	Business Technology and Training Applications (NC)	4
or	TCOM 110	Production Planning and Writing	
	TCOM 200B	Audio Production	4
	EM 298	Independent Study	1-4
	JOUR 233	Information Gathering	3
	TIER II	Social Sciences	4
		TOTAL:	**16-19**

PROGRAM TOTAL 100-103

Transfer of credits from other institutions will be determined on a case-by-case basis.

Credit from other programs in the Ohio University system will be accepted. The new courses proposed are indicated by **(NC)** in the preceding Electronic Media curriculum plan. There are five additional courses proposed for the Electronic Media degree to emphasis multimedia on the Lancaster Campus

APPENDIX F

LETTERS OF CORRESPONDENSE

RHE
EXISTING ASSOCIATE DEGREE
NEW CAMPUS

Campus proposing new degree OHIO UNIVERSITY - LANCASTER

Name of degree Electronic Media

Major code of degree AA5013

Program director on new campus Gabrielle M. Fennmore, Assistant Professor

Address 1570 Granville Pike, Lancaster, OH 43130

Phone 1-888-446-4468 ext. 641 /740-654-6711 ext. 641/614-837-0959 exc.641

E-mail fennmore@ohiou.edu

# of students anticipated Our projection is for a beginning class of 20-25 students and classes of 30 students entering each new academic year thereafter.

(attach any curricular sheets given to students)

This has been reviewed and approved by the individuals who signed below.

New Campus Program Director Gabrielle M. Fennmore

Dean/Assistant Dean of Campus John W. Frankson Jr

RHE Curriculum Committee Chair

Regional Higher Education

Ohio University–Lancaster

1570 Granville Pike
Lancaster, Ohio 43130-1097
740/654-6711

October 5, 2001

Michael Taggart
Director, Two Year Campus Programs
Ohio Board of Regents
30 East Broad Street, 36 Floor
Columbus, Ohio 43266-0417

Dear Mr. Taggart;

Enclosed is our Preliminary Proposal Submission to introduce the two-year Associate Degree in Electronic Media on the Ohio University – Lancaster regional campus.

Currently this same Associate Degree is offered on two other Ohio University regional campuses (Southern and Zanesville) and is operating very successfully. We have approached our own community in regard to offering this degree and the support is overwhelming. The OU-L Electronic Media Associate Degree Advisory Committee (list of members in full proposal) has recommended that the program be proposed to the University and the Ohio Board of Regents. A survey of the OU-L service area was conducted by direct mail, and the results confirmed the need for the program (tabulation of results listed in full proposal). Many of the courses needed for the degree are already offered at OU-L, especially in the computer-related areas. New courses in the professional core of multimedia concentration have already been approved by the University Curriculum Counsel. We now seek your support in bringing this specialization to the Lancaster and Fairfield county community.

Thank you for your time in reviewing our proposal.

Sincerely,

John Furlow
Associate Dean

Gabrielle Fennmore
Assistant Professor, Electronic Media

cc. Kathy Hill

OHIO BOARD OF REGENTS

October 22, 2001

John Furlow, Associate Dean
Ohio University - Lancaster
1570 Granville Pike
Lancaster, Ohio 43130-1097

Dear Mr. Furlow:

This is to acknowledge that our office has received Ohio University-Lancaster regional campuses' preliminary proposal to offer a new Associate Degree of Applied Science in Electronic Media.

Preliminary Approval Granted:

The institution may proceed with the process of the *"Formal Proposal"* development. Preliminary approval will be withdrawn if a formal proposal for the Board of Regents' consideration has not been submitted within two years of the date of preliminary approval was granted.

The signed ***Request for Preliminary Approval*** form is enclosed. I look forward to receiving the colleges' formal proposal within the near future. If you need additional information, please contact me at (614) 752-9487.

Sincerely,

Michael C. Taggart
Director, Workforce Development

cc: Gabrielle Fennmore, Assistant Professor, Electronic Media

MCT/cmh
Enclosure

OHIO BOARD OF REGENTS
Request for Preliminary Approval

Ohio University Lancaster, Lancaster, Ohio

Name of Campus

☒ **Develop proposal for a new two-year ASSOCIATE DEGREE program.**

Title of Program: Electronic Media

☐ **Offer a MAJOR under an associate degree program already approved for this campus.**

Title of Program: _____

Title of Major: _____

☐ **Offer a one-plus-one (1+1) program**

Title of Program: _____

Cooperating Campus: _____

John W. Evans Jr. — 10/5/01

Signature of Campus Official Making Request — Date of Request

Return to: Director, Two-Year Campus Programs
Ohio Board of Regents
30 East Broad Street, 36th Floor
Columbus, Ohio 43266-0417

OBR STAFF ACTION:

☒ **Approved**
☐ **Denied**
☐ **Held for further consideration**
☐ **Comments/Conditions** _____

Director, Workforce Development — 10/22/01

Date

APPENDIX G

NEW COURSE APPROVAL FORMS

NEW COURSE APPROVAL FORM

(15 copies required, 5 signed–see instructions on reverse side.)

For detailed instructions, see "Guidelines for Submission of New Course Proposals and Course Changes.")

Department/School **Electronic Media** MCF Course * **EM** Catalog No. **212**

Title **Introduction to Multimedia Production**
Abbreviated Title (limit of 25 characters and spaces; title that will appear in Schedule of Classes)

Intro to Multimedia

Course Standing Code **U20** Instruction Code **5** Grade Eligibility Code **1**

Credit Hours **4** Hrs. Lect./Wk. **2** Hrs. Lab./Wk. **4** Projected Enrollment **25**

Repeatable Course(Y/N)? **N** Maximum Accumulated Credit Hours Allowed _____

Retakable Course(Y/N)? (undergrad only) **Y** Maximum Number of Times may be Retaken **1**

Prerequisite(s) (limit of 42 characters and spaces; if none, indicate "None")

Undergraduate course: **EM 101**

Graduate course: _____

General Education **NO** (Indicate if Tier I or II. If Tier I, Junior English Composition, attach English Composition Advisory Committee approval letter. If Tier II, indicate A, C, H, N, or S. Use UCC Form 3 for Tier III courses.)

	Effective Date:	Quarter (F, W,Sp,Su)	Academic Year (e.g.1999-2000)
Instructor(s) **Gabrielle Fenmore**		**Fall**	**2001-2002**

Brief Description of Course (course description that will appear in catalog):

EM 212 – Introduction to Multimedia Production – 4 cr. (2 lec & 4 lab).
Students will learn software applications on both the Mac and PC to create and edit multimedia for desktop publishing, interactive presentations, television/video, and web site content.

Recommended by Dept./School Curriculum Chair _____ Date 4-10-01

Recommended by Dept. Chair/School Director Date _____ Date 4-12-01

Recommended by College Curriculum Chair Date _____ Date 4/15/01

Recommended by College Dean Date _____ Date 4/16/01

Approved by University Curriculum Council Date _____ Date 6/5/01

PASSED CURRICULUM COUNCIL DATE INITIAL

*Abbreviation for department or discipline used in Master Curriculum File (MCF) and Schedule of Classes.
UCC Form 1: January 1999

EM 212 – INTRODUCTION TO MULTIMEDIA PRODUCTION

PURPOSE OF COURSE

Give students introduction to the applicable software used in the field of multimedia.

COURSE CONTENT

Outline:

Overview of multimedia software - an introduction to the enormous variety of software used in creating and editing media
Image creation - mastery of image creation software such as Adobe Illustrator and Corel Draw
Photo/Image editing - advanced techniques for touching up and altering images using packages such as Adobe Photoshop
Video/Animation/Audio creation - software to create/edit digital video
Presention tools - use of Microsoft Powerpoint and Hyperstudio to integrate images and video created throughout this course into usable multimedia presentaion

Possible texts and/or readings:

Andleigh, Prabhat K. *Multimedia Systems Design*. Upper Saddle River, NJ: Prentice Hall PTR, 1996.

Pinheiro, Edwin J. *Introduction to Multimedia: Featuring Windows Applications*. Belmont, CA: Wadsworth Pub. Co., 1996.

Luther, Arch C. *Designing Interactive Multimedia*. New York, NY: Bantam, 1992.

Luther, Arch C. *Authoring Interactive Multimedia*. Boston, MA: AP Professional, 1994.

Lab Activity:

Students will use the various software packages in multiple computer assignments to gain knowledge of the tools in multimedia design.

Assignments:

Projects will be assigned throughout the course on each software package including integration of these projects to develop a skill level for graphical software, the base for the multimedia degree.

RESOURCES

Computer labs with multiple software packages and tutorials will be available for the students.

RELATION TO OTHER COURSES

This course does not replace nor duplicate another course.

MAJORS AND DEGREES

This course will be required for the Multimedia Systems Technology major.

NEW COURSE APPROVAL FORM

(15 copies required, 5 signed–see instructions on reverse side.)

For detailed instructions, see "Guidelines for Submission of New Course Proposals and Course Changes.")

Department/School **Electronic Media** MCF Course * **EM** Catalog No. **215**

Title **Introduction to Web Design**
Abbreviated Title (limit of 25 characters and spaces; title that will appear in Schedule of Classes)

Intro to Web Design

Course Standing Code **U20** Instruction Code **5** Grade Eligibility Code **1**

Credit Hours **4** Hrs. Lect./Wk. **2** Hrs. Lab./Wk. **4** Projected Enrollment **25**

Repeatable Course(Y/N)? **N** Maximum Accumulated Credit Hours Allowed _____

Retakable Course(Y/N)? (undergrad only) **Y** Maximum Number of Times may be Retaken **1**

Prerequisite(s) (limit of 42 characters and spaces; if none, indicate "None")

Undergraduate course: ~~EM 101, EM 212~~ Not necessary if its a prereq for 212

Graduate course: _____

General Education **NO** (Indicate if Tier I or II. If Tier I, Junior English Composition, attach English Composition Advisory Committee approval letter. If Tier II, indicate A, C, H, N, or S. Use UCC Form 3 for Tier III courses.)

	Effective Date:	Quarter (F, W,Sp,Su)	Academic Year (e.g.1999-2000)
Instructor(s) **Gabrielle Fenmore**		**Fall**	**2001-2002**

Brief Description of Course (course description that will appear in catalog):

EM 215 – Introduction to Web Design – 4 cr. (2 lec & 4 lab).
Basic knowledge of webpage creation and how the Internet functions. Students will learn html, the language of the web, how to integrate media into webpages, and essential understanding of how to post pages onto the World Wide Web and server functions.

Recommended by Dept./School Curriculum Chair _____ Date 4-10-01

Recommended by Dept. Chair/School Director Date _____ Date 4-12-01

Recommended by College Curriculum Chair Date _____ Date 4/16/01

Recommended by College Dean Date _____ Date 4/20/01

Approved by University Curriculum Council Date _____ Date 6/5/01

PASSED CURRICULUM COUNCIL DATE INITIAL

*Abbreviation for department or discipline used in Master Curriculum File (MCF) and Schedule of Classes.

UCC Form 1: January 1999

EM 215 – INTRODUCTION TO WEB DESIGN

PURPOSE OF COURSE

Provide an understanding of how to plan and implement a basic web space using a variety of tools.

COURSE CONTENT

Outline:

History of the Internet and how it works
Web browsers - intimately getting to know Netscape Navigator, Internet Explorer and other browsers, learning what makes for a good website by spending time using the Internet
HTML coding - learning how to use commercial webpage editors such as Adobe Pagemill and Netscape Communicator, as well as the hard coding of HTML, using only a text editor
File transfer and directory structure - publishing webpages and organization of a website's file
Images - proper image formats used on the web
Page layout/limitations of HTML - integrating knowledge of the browser and HTML to create eye-pleasing and logical websites
Webpage management - organization of a website for consistent and anticipated flow
Legal issues - copyright of material online, hacking, etc.

Possible texts and/or readings:

Morris, Mary E. S. *Web Page Design: A Different Multimedia.* Mountain View, CA: SunSoft Press, 1996.

Foundations of World Wide Web Programming with HTML & CGI. Foster City, CA: IDG Books Worldwide, Inc., 1995.

Castro, Elizabeth. *HTML for the World Wide Web.* 2nd ed. Berkeley, CA: Peachpit Press, 1997.

Lab Activity:

Research of various websites to get accustomed to the medium as well as work with numerous software applications used in the creation of webpages.

Assignments:

Students will create their own websites. Projects will be assigned to build sites, each centering around selected topics and reemphasizing previous class topics.

RESOURCES

Students will be provided with the latest tools in webpage creation to give them exposure to what they will need in a career as webmaster.

RELATION TO OTHER COURSES

This course does not replace nor duplicate another course.

MAJORS AND DEGREES

This course will be required for the Multimedia Systems Technology major.

NEW COURSE APPROVAL FORM

(15 copies required, 5 signed--see instructions on reverse side.)

For detailed instructions, see "Guidelines for Submission of New Course Proposals and Course Changes.")

Department/School **Electronic Media** MCF Course * **EM** Catalog No. **217**

Title **Introduction to Digital Media**
Abbreviated Title (limit of 25 characters and spaces; title that will appear in Schedule of Classes)

Intro to Digital Media

Course Standing Code **U20** Instruction Code **5** Grade Eligibility Code **1**

Credit Hours **4** Hrs. Lect./Wk. **2** Hrs. Lab./Wk. **4** Projected Enrollment **30**

Repeatable Course(Y/N)? **N** Maximum Accumulated Credit Hours Allowed _____

Retakable Course(Y/N)? (undergrad only) **Y** Maximum Number of Times may be Retaken **1**

Prerequisite(s) (limit of 42 characters and spaces; if none, indicate "None")

Undergraduate course: **ART 113, ~~EM 101~~, EM 212**

Graduate course: _____

General Education **NO** (Indicate if Tier I or II. If Tier I, Junior English Composition, attach English Composition Advisory Committee approval letter. If Tier II, indicate A, C, H, N, or S. Use UCC Form 3 for Tier III courses.)

Effective Date: Quarter (F,W,Sp,Su) **Fall** Academic Year (e.g.1999-2000) **2001-2002**

Instructor(s) **Gabrielle Fenmore**

Brief Description of Course (course description that will appear in catalog):

EM 217 – Introduction to Digital Media – 4 cr. (2 lec & 4 lab).
Study of the basics of photography and videography, using common cameras as well as digital cameras, through developement and integration into current digital media applications.

Recommended by Dept./School Curriculum Chair _____ Date 4-10-01

Recommended by Dept. Chair/School Director Date _____ Date 4-12-01

Recommended by College Curriculum Chair Date _____ Date _____

Recommended by College Dean Date _____ Date 4/26/01

Approved by University Curriculum Council Date _____ Date 6/5/01

*Abbreviation for department or discipline used in Master Curriculum File (MCF) and Schedule of Classes

UCC Form 1: January 1999

EM 217 – INTRODUCTION TO DIGITAL MEDIA

PURPOSE OF COURSE

Media creation and integration will give students the basic skill set to bridge digital and non-digital media.

COURSE CONTENT

Outline:

Photography - use of digital and non-digital cameras to capture photographs for use in desktop publishing, webpage design, etc.
Photo editing and scanning - using the computer to digitize and edit photographs/images
Imaging technology
Videography - capturing and editing video
Computer applications for video conversion/digitization - software such as Adobe Director will be used in digitize and edit video and animation
Multimedia digital video formatting - standards for digital video formatting
Audio - special concerns related to audio in digitization
Use of digitized multimedia - how to integrate the digitized media websites, cd-roms, etc.

Possible texts and/or readings:

Abernathy, Ken. *Exploring the Digital Domain: An Introduction to Computing with Multimedia and Networking.* Beta ed. Boston, MA: PWS Publishing, 1998.

Villamil-Casanova, John. *An Interactive Guide to Multimedia.* Indianapolis, IN: Que E & T, 1996.

Lathrop, Olin. *The Way Computer Graphics Works.* New York, NY: Wiley, 1997.

Lab Activity:

Labs involving both computer applications and non-digital media creation will be incorporated into the curricula.

Assignments:

Students will be required to work on a number of projects creating media and converting it to a digital form.

RESOURCES

Access to the necessary equipment, cameras and camcorders, as well as ample computers with digitization applications.

RELATION TO OTHER COURSES

This course does not replace nor duplicate another course.

MAJORS AND DEGREES

This course will be required for the Multimedia Systems Technology major.

NEW COURSE APPROVAL FORM

(15 copies required, 5 signed--see instructions on reverse side.)
For detailed instructions, see "Guidelines for Submission of New Course Proposals and Course Changes.")

Department/School: RHE MCF Course Prefix*: CTCH Catalog No.: 127

Title: Introduction to Website Management

Abbreviated Title (limit of 25 characters and spaces; title that will appear in Schedule of Classes)
Intro to Website Mgt

Course Standing Code: U20 Instruction Code: 5 Grade Eligibility Code: 1

Credit Hours: 4 Hrs. Lect./Wk.: 3 Hrs. Lab./Wk.: 2 Projected Enrollment: 20

Repeatable Course(Y/N)? N Maximum Accumulated Credit Hours Allowed: 4

Retakable Course(Y/N)? (undergrad only): Y Maximum Number of Times may be Retaken: 1

Prerequisite(s) (limit of 42 characters and spaces; if none, indicate "None")

Undergraduate course: C or better in CTCH 125

Graduate course: N/A

General Education: No (Indicate if Tier I or II. If Tier I, Junior English Composition, attach English Composition Advisory Committee approval letter. If Tier II, indicate A, C, H, N, or S. Use UCC Form 3 for Tier III courses.)

Instructor(s)	Effective Date: Quarter (F, W, Sp, Su)	Academic Year (e.g. 1999-2000)
Christine Wolfe or Adjunct	F	2002

Brief Description of Course (course description that will appear in catalog):
Introduction to Website management principles, skills, techniques, strategies, hardware, and software necessary to operate and maintain a successful Website or Intranet. Emphasis on how to maximize the usability of a website while maintaining the structure necessary to allow the site to change and grow.

Recommended by Dept./School Curriculum Chair		Date:
Recommended by Dept. Chair/School Director	[signature]	Date: 9-17-01
Recommended by College Curriculum Chair		Date:
Recommended by College Dean		Date:
Approved by University Curriculum Council		Date:

*Abbreviation for department or discipline used in Master Curriculum File (MCF) and Schedule of Classes.
UCC Form 1: January 1999

Proposed Course CTCH 127 – Introduction to Website Management

PURPOSE OF COURSE

CTCH 127 will provide the Computer Science Technology student and the Electronic Media student with highly marketable introductory website and server networking skills. The course complements both curricula by focusing on the backend of web server management including the hardware, software, and networking interfaces.

COURSE CONTENT

Outline:

Hardware and physical connectivity to the Internet
Server management including:
- Server operating systems
- Security
- Performance
- Capacity planning

URLs and Domain Name Servers
- ICANN
- TCP/IP Fundamentals

Web based databases
Ethics

Possible texts and Readings:

Mission Critical: Windows 2000 Server Administration by Walshaw (Syngress)
Developer's Guide to the JAVA Web Server by Woods, Pekowsky, Snee (Addison Wesley)

Assignments:

Students will be required to complete chapter readings, study guides, homework assignments, two midterm exams and a final exam, and to perform project-based lab work to apply the course material and to demonstrate competency with hands on applications

RESOURCES

Students will have access to lecture materials and solutions to study guides and exercises, as well as to their textbooks, lectures, and discussions, in-class, and in-lab demonstrations and the computer lab.

RELATIONSHIP TO OTHER COURSES

By focusing on the backend of presenting a website on the Internet, this course complements EM 215, Introduction to Web Design, which focuses on the front end. In addition it complements and strengthens the CTCH curriculum by providing desirable skills and knowledge to the computer professional.

MAJORS AND DEGREES

This course will be required for the Electronic Media majors and an elective for the Computer Science Technology majors.

NEW COURSE APPROVAL FORM

(15 copies required, 5 signed–see instructions on reverse side.)
For detailed instructions, see "Guidelines for Submission of New Course Proposals and Course Changes."]

Department/School Business Management Technology MCF Course Prefix* BMT Catalog No. 290

Title Business Training & Technology Applications
Abbreviated Title (limit of 25 characters and spaces; title that will appear in Schedule of Classes)

Course Standing Code_____ Instruction Code_____ Grade Eligibility Code_____

Credit Hours 4 Hrs. Lect./Wk. 3 Hrs. Lab./Wk. 1 Projected Enrollment 20

Repeatable Course(Y/N)? N Maximum Accumulated Credit Hours Allowed_____

Retakable Course(Y/N)? (undergrad only) Y Maximum Number of Times may be Retaken 2

Prerequisite(s) (limit of 42 characters and spaces; if none, indicate "None")

Undergraduate course: BMT 200 or CS 120 or CTCH 125

Graduate course: none

General Education NO (Indicate if Tier I or II. If Tier I, Junior English Composition, attach English Composition Advisory Committee approval letter. If Tier II, indicate A, C, H, N, or S. Use UCC Form 3 for Tier III courses.)

Effective Date: Quarter (F, W,Sp,Su) _____, Academic Year (e.g.1999-2000) 2002-2003

Instructor(s) Brian Boyt

Brief Description of Course (course description that will appear in catalog):

This course is both an introduction to the training and development field and to the use of multi-media in facilitating learning. Activities include exposure to cutting edge multi-media tools used in training and development. In addition, there will be opportunities for students to exhibit the use of multi-media applications in designing facilitation plans, designing interactive computer based training (CBT) tools, and integrating Web-based training (WBT) tools into training environments. (over

Recommended by Dept./School Curriculum Chair _____ Date_____

Recommended by Dept. Chair/School Director _____ Date_____

Recommended by College Curriculum Chair _____ Date_____

Recommended by College Dean _____ Date_____

Approved by University Curriculum Council _____ Date_____

*Abbreviation for department or discipline used in Master Curriculum File (MCF) and Schedule of Classes.
UCC Form 1: January 1999

BMT 290 – BUSINESS TECHNOLOGY TRAINING APPLICATIONS

PURPOSE OF COURSE

To introduce student to multimedia applications in training and development.

COURSE CONTENT

Outline:

Training and Development Field Introduction
- Training as an educational function
- Training for adult learners
- Curriculum design concepts

Facilitation Planning – subtopics
Computer Based Training (CBT) Design
Review of Current Technologies in Training
Training as Career Specialty
Groupware Applications in Training

Texts and/or Readings:

Reynolds/Angus. *Multimedia Training-Developing Technology Based Systems.* New York, NY: McGraw Hill, 1996

Lab Activity:

Basic use of computers/tools used in multimedia design and applied to training and development.

Assignments:

Demonstrate knowledge of multimedia use in training and development through facilitation plans. Design specific multimedia tools for training applications.

RESOURCES

Students will have access to multiple technologies, hardware and software, related to multimedia design.

RELATION TO OTHER COURSES

This course does not replace nor duplicate another course.

MAJORS AND DEGREES

This course will be required for the Electronic Media major

BIBLIOGRAPHY

Becker, C. (Ed). (1994). *The subversive imagination; artists, society, and social responsibility*. New York: Routledge.

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