Community College of Philadelphia

Proposal for an Associate in Applied Science Degree in

Digital Video Production

Proposal Writer: Allan Kobernick

Contributors: C. Geoffrey Berken and Jon Spielberg

Facilitator: Larry MacKenzie

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I. Abstract

The proposed Associate in Applied Science degree program in Digital Video Production is designed to address the need for skilled digital video production professionals. The use of video as a primary medium for communication and the growing variety of video delivery technologies including DVD, cable, satellite, and broadband internet, with their hundreds of channels, have magnified the use of this medium as well as stimulated an unrelenting demand for programming. These advances in technology have created a number of employment opportunities that are addressed by this program. Local production companies, national broadcast organizations, and institutions with digital media communication strategies employ qualified personnel that have a high level of skill and expertise in camera operation, audio recording and digital video editing. To that end, the Digital Video Production curriculum is designed to develop proficiencies consistent with entry level industry standards. Students will gain production experience through involvement with the operation of the College's broadcast television station CCPTV, which is broadcast to the Philadelphia community via Comcast Channel 53 and Verizon FiOS Channel 21. The programs are also available on the web at the CCPTV website.

Two groups of students expected to enter this program are: individuals interested in developing the skills necessary for entry level employment in the field and individuals already working in the field who wish to enhance or update their skills.

The goals of the program are to provide students with the technical skill and experience necessary to enter the workforce as Professional Camera Operators, Audio and Lighting Technicians, Video Editors, Directors and Producers in the digital video production field. A secondary goal is to provide a foundation for transfer to baccalaureate institutions.

Surveys of the national labor trends statistics project substantial employment opportunities in this field with median salary ranges from $17,000 to over $72,000. State and local data support these findings.

Seven new courses will be developed. Along with general education courses, the first year is devoted to developing the basic technical skills needed to become part of a digital video production team. The second year is devoted to crew based production experience in two basic professional video venues: the studio production and the location production. The final semester also includes a course in professional business practices. Students end each course with examples of their work that will be compiled in a digital portfolio and used as support in their search for jobs in the field. Students graduating from this curriculum will enter the work force as trained and experienced professionals.

II. Opportunities Addressed by the Proposed Program

Technological advances in the past two decades have radically changed the way in which media is produced and delivered. Amateurs simply interested in documenting personal adventures and milestones as well as professionals creating news, documentaries and theatrical

productions for broadcast by air, cable, satellite and even the Internet know that the past twenty years have been wrought with technological and stylistic change. Simply keeping up with the latest technology is an adventure. Learning to use it effectively can be extremely challenging, especially as changes in the hardware and software occur monthly.

Although much has been made of the newly available mass communication venues like YouTube which allow the use of a wide variety of both amateur and professionally produced programming, many other venues such as free-air broadcast, cable and satellite channels still require higher quality, more professionally produced programs. The current proliferation of "reality" type programs is a prime example of these phenomena. Perhaps they are popular with viewers because Andy Warhol was right when he implied that everyone seeks their own 15 minutes of fame. Producers like them because they are cheaper to create, as they are shot in natural environments, on location, avoiding the costs of writers, studios and high priced actors. While substantially less costly than traditional productions, each program requires video technicians, camera operators, sound engineers, editors, producers and other personnel.

While equipment for consumers has become more accessible and easier to use, the demands on the practicing professional have actually intensified as the options made available by the technology have increased. Before the digital "revolution", film and video production technicians were mainly involved in the operation of cameras, lights and sound, while it took engineers in elaborate studios and technicians in complicated factory-like labs to maintain the basic technical quality of the end products. Now, video production technicians not only need skills in the proper operation of the equipment, but must be proficient in a multitude of computer applications that support the functionality of their equipment and permit them to carry out their production tasks. Students involved in these endeavors now need skills in a wide variety of digital technologies in order to qualify for job opportunities in the field of video production.

Currently, the Community College of Philadelphia provides two courses in the area of video production Photography 104 Introduction to Video Production and Photography 211, Event and Corporate Videography. Photography 104 will serve as a gatekeeper course and students who wish to enter the Digital Video Production Program must complete Photography 104, Introduction to Video Production, with a grade of B or better. Photography 211, Event and Corporate Videography, is a Directed Elective for DVP students.

To summarize: local production companies, national broadcast organizations, and institutions with digital media communication strategies employ qualified personnel that have a high level of skill and expertise in camera operation, lighting, audio recording and digital video editing. To that end, the Digital Video Production degree program is designed to develop proficiencies consistent with entry level industry standards. As mentioned earlier, students will gain production experience through involvement with the operation of the College's broadcast television station CCPTV, which is broadcast to the Philadelphia community via Comcast Channel 53 and Verizon FiOS Channel 21.

III. Expected Program Participants

Students will be attracted to the program via a variety of paths and are likely to come from the following groups:

- Individuals interested in developing skills and obtaining employment in the area of digital video production
- Individuals already employed or active in video production who wish to upgrade their skills to include the new digital technologies

All of these students will have the opportunity to gain the technical training, skills and experience required for employment in the field, as well as a high quality general education.

IV. Description of the Proposed Program

The Digital Video Production curriculum is structured to provide students with the comprehensive technical skills and the practical experience necessary to enter the workforce as professional camera operators, audio and lighting technicians, video editors, and producers in the digital video production field. It is designed for students who wish a career in the digital video production industry.

An informal survey of schools in the area has revealed very few similar offerings by either community colleges or baccalaureate institutions. Mercer County Community College offers a program in video production and Montgomery County Community College offers a degree in digital broadcasting, but these offerings seem less practical, and oriented toward verbal and organizational skills rather than toward the technical production skills emphasized in this proposed curriculum. The Art Institute of Philadelphia, a private institution, is the only institution surveyed offering an Associates Degree in Video Production that is similar to the proposed curriculum; however, it is lacking the experiential components in the proposal. Four year institutions in the area like Drexel University and Temple University also have video production curricula to which our students could conceivably transfer. (For further information on this topic, see Appendix 4)

The main differences between this proposed curriculum and the comparable offerings at competing institutions in the area are twofold. First, this curriculum provides a comprehensive study of each of the basic technical crew roles in digital video production including camera operation, audio acquisition, lighting, editing, producing and directing. Second, by having the students complete assignments for broadcast on the College's Public Education and Government (PEG) channel, this curriculum provides the production experience necessary for direct employment in the field.

A. Program Goals and Student Learning Outcomes

The goals of the Digital Video Production Program are:

- The primary goal is to provide students with the technical skills and the practical experience necessary to enter the workforce as professional camera operators,

audio and lighting technicians, video editors and producers in the digital video production field.

- The secondary goal is to provide a strong foundation comprised of both field specific training and general education so that students are qualified to continue their education by transferring to four year institutions.

Student Learning Outcomes

Upon successful completion of this program students will be able to:

- Demonstrate proficiency in the operation of digital video cameras, lighting equipment for studio and location production, and audio for digital video production, digital video editing hardware and software
- Evaluate technical and aesthetic qualities of digital video production in the context of historical and contemporary trends
- Employ current business practices of digital video production

B. Relationship to College Mission

The goals of the Digital Video Production Program are consistent with the College's Mission Statement. As it is an AAS degree program and students are enrolled in general education courses as well as in special skill training and preparation courses, this program prepares students "to be informed and concerned citizens, active participants in the cultural life of the city, and enabled to meet the changing needs of business, industry and the professions." This curriculum also "draws together students from a wide range of ages and backgrounds and seeks to provide the programs and support they need to achieve their goals." Finally because this curriculum is focused on skills necessary for employment in the Digital Video Production field, students will achieve "… self-fulfillment based on service to others, preparation for future work and study, and enjoyment of present challenges and accomplishments."

C. Potential Employment

The May 2007 report of the Labor Department's Bureau of Labor Statistics, Occupational Employment Statistics, indicates healthy employment in the areas of Film and Video Editors, (17,410), Sound Technicians (15,490), Broadcast Technicians(34,250), Audio and Video equipment Technicians(40,360), Producers and directors(72,390) Other Media and Communication Workers(24,420), and specifically, Camera Operators, Television, Video and Motion Picture(19,990). Median salary ranges are from approximately $36,000 to $61,000 annually. This curriculum trains and develops graduates to fill these positions. (See Appendix 1.) Regional statistics parallel the national trends projecting a 34% increase in job opportunities in the categories of media and communication workers, audio and video equipment technicians, camera operators, television, video and motion picture and film and video editors between 2002 and 2018 (See Appendices 2 and 3.)

D. Program Transferability

Although this program is not primarily designed for transfer to 4 year degree programs at other colleges, students completing the Digital Video Production curriculum may qualify to

enter the advanced levels of relevant programs offered at local and national baccalaureate institutions. Temple University and Drexel University are but a few of the many local and national colleges that offer baccalaureate degrees in some form of Digital Video Production. An initial articulation discussion was held among Jan Fernback, Department Head of the Broadcast Television and Mass Media Department, Temple University; Jack Klotz, faculty member of the same department, and Margaret Niven and Allan Kobernick of Community College of Philadelphia. Drs. Fernback and Klotz both indicated that from the descriptions of the courses and the program, it was likely that students would be able to transfer into the 3rd year of Temple's 4 year program. Specifics will be developed when Community College of Philadelphia's proposed DVP program is actually approved and the courses are written. Inquiries are currently also being made at Drexel University.

E. Student Support Plan

Digital Video Production is a challenging field requiring expertise and experience in many areas. Students will need support in the areas of orientation and advising. In addition to receiving the College-wide orientation offered in the beginning of each semester. Co-curricular and student enrichment activities will be provided by a variety of initiatives, including public presentation of completed projects, and occasional guest lectures and field trips.

Faculty expect to provide students with substantial support using close faculty supervision of each student's progress, providing mentoring and adequate access to computer labs, studios and equipment, as well as creating links with available College support systems, including the Learning Lab and the Counseling Department. Finally, the faculty will commit to implementing "early warning" systems that will provide students with feedback concerning their progress and enable prompt and meaningful support interventions for those who may be in need.

F. Enrollment Management Plan

The schedule of projected course offerings is outlined on the following table:

1st semester DVP is offered at CCP	2nd semester DVP is offered at CCP	3rd semester DVP is offered at CCP	4th semester DVP is offered at CCP
PHOT 104 (32 seats)	DVP 120 (16 seats) DVP 130 (16 seats) DVP 140 (16 seats)	DVP 150 (16 seats cohort 1) PHOT 104 (32 seats-cohort 2)	DVP 210 (16 seats cohort 1) DVP 220 (16 seats cohort 1) DVP 120 (16 seats-cohort 2) DVP 130 (16 seats cohort 2) DVP 140 (16 seats cohort 2)

The pattern of offerings shown above in 3rd semester and 4th semester would then repeat each year. Part-time students could enroll in the curriculum. Although they would not remain with their entry cohort as they progress through the program, they would still have many opportunities to develop relationships with peers and faculty through small group work. If there is sufficient interest from students, it is possible that a separate evening/weekend part-time cohort could be added where the program is spread over more than two years.

Size of the Cohort

Because of the cost of equipment and other resources as well as the intensity of the courses the Digital Video Production Program is designed for a small, focused group of students. In the first semester we expect to recruit at least 32 students for PHOT 104 with the expectation that 16 of those will continue into the DVP curriculum.

Student Selection and Retention

Only students with grade of B or better in Photo 104 will be permitted to continue with the rest of the DVP Curriculum. The Department will offer all possible student supports to assure good student retention and high completion rate. The graduation goal will be at least ten per year starting with the completion of the curriculum by the first cohort of students (See page 11 "Catalog Description for suggested sequence of courses.) If demand for the program exceeds the projections listed above then additional sections including evening, weekend and summer sections could be added.

V. Internal Program Coherence (See Two Year Educational Plan below)

A. Students' Experience and Academic Growth

The Digital Video Production curriculum culminates in an A.A.S. Degree. Many of the courses require extensive laboratory experience and are designed to involve the student with 2 hours of lecture and 4 hours of laboratory experience in 6 contact hours of work. As with the Photographic Imaging courses, most of the courses in the Digital Video Production curriculum have assignments that require the supervised use of specialized equipment and computer work stations. These laboratory experiences currently take place in the Department of Photographic Imaging computer classroom, B1-15 and the CCPTV Studio, B1-21.

Additionally, because the plan is to enroll a cohort of students in the program and have them take the courses sequentially, keeping the initial cohort intact from semester to semester, the students will have the additional benefits of being part of a learning community throughout their two years in the program. Part-time students will be encouraged to remain with their entry cohort so that they can experience the benefits of being part of a learning community throughout their tenure in the program.

The first course in the curriculum is designed as an introduction to computer skills for Digital Video Production. These include computer management, file naming, and industry best practices for workflow management. In addition the course offers a hands-on overview of each

of the technical software programs used in the curriculum. The students later take courses which are differentiated by their individual focus on the skills needed for a single role on a Digital Video Production Team.

The first year of this curriculum will include the required general education courses plus Photo 104- Introduction to Video Production, DVP 120 - Camera and Lighting, DVP 130 – Audio for Digital Video Production, and DVP 140 -Video Editing. Each of these courses teaches the basic skills and techniques of the particular disciplines. Students are also required to complete Photo 151, Digital Imaging in order to support the basic graphics skills necessary for many aspects of Digital Video Production. At the end of each course, students will compile a digital portfolio of their work in each of the disciplines.

The second year, semesters 3 and 4, students will take DVP 150-Producing and Directing for Video Production, and DVP 210 Advanced Techniques for Digital Video Production - Location, DVP 220- Advanced Techniques for Digital Video Production - Studio, and PHOT 299- Professional Practices, the capstone course. Photo 299 course will be revised so that it is a suitable course for both photographers and video producers.

In all Digital Video Production courses, students will spend most of their time involved in the production process. They will work in crews and complete production assignments to be aired on the College's Public Education and Government (PEG) CCPTV. As was explained earlier, through this process, students will obtain the experience that will qualify them for employment in the digital video production industry. They will also have the added benefit of resume entries indicating their broadcast experience.

These new DVP courses are described in detail in section VI of this document.

B. Directed Electives

Students will also be required to select two directed electives from a list that includes:

- ENGL 205 -Creative Writing
- ENGL 282 -Script Writing
- ENGL 272 -Topics in Film Study
- PHOT 211 – Event and Corporate Videography
- DVP 240- Advanced Video Editing Techniques for Digital Video Production
- ENGL 107 – Society and Mass Communications
- ENGL 116- Interpersonal Communication

These directed electives are designed to give students an opportunity to customize their education and training to special areas of the digital video production field. For instance, students interested in becoming script writers for video and film production would benefit from English 205, 282 or 272. Students interested in pursuing the specialty of Event or Corporate Videography can enroll in Photo 211. Society and Mass Communication also will help students going into any areas of the field understand how their work will fit into the culture and society at large. Students interested in becoming producers and directors will be able to enhance their ability to work with crews by taking English 116. Students interested in becoming digital video editors should take DVP 240 to add depth to their training, making them more employable.

C. General Education

Students will also take the College mandated general education courses required for A.A.S. degrees, including English 101 and 102, Math 118, a social science elective, a humanities elective, and a natural science elective. They will also have the required computer proficiency by taking CIS 103.

Basic English and math skills are essential to anyone entering the digital video production field. Workers in the digital video production field are often called upon to use basic English reading and writing skills as they develop their scenarios, storyboards and scripts, and basic math skills are used in the video editing process. Social science and humanities electives help students develop their concepts for the current events and news programs that they are required to produce for CCPTV as a part of their course work. Basic computer skills taught in CIS 103 are used constantly in the digital video curriculum.

D. 2-Year Educational Plan

See catalog grid on next page.

Catalog Description

Digital Video Production

The Digital Video Production Curriculum prepares students as entry level professionals in the digital video production field. Classroom lecture and practical assignments in the use of state-of-the-art digital technology lead to the development of technical and aesthetic skills required for success in the digital video production field. Students gain practical experience by creating programs for the College CCPTV educational broadcast channel as part of their course work. Students completing this program will be prepared to work as videographers, audio technicians, video editors, producers and directors and related occupational roles.

Extensive computer activities and location and studio production are required for some courses in this curriculum. Students are encouraged to develop artistic appreciation and imagination in their work. Upper level courses emphasize advanced technical and creative skills and professional practices. Students exit this program with a digital portfolio of their work to aid in obtaining employment in the digital video field.

Student Learning Outcomes:
Upon completion of this program students will be able to:

- Demonstrate proficiency in the operation of digital video cameras, lighting equipment for location and studio production, audio for digital video production, digital video editing hardware and software.
- Evaluate technical and aesthetic qualities of digital video productions in the context of historical and contemporary trends
- Employ current business practices as applied to the practice of digital video production

Program Entry Requirements
This program is open to interested students, assuming space is available. However, new students are required to take the College's placement tests at their time of entry. Students who are identified as needing developmental course work must satisfactorily complete the appropriate English and mathematics courses as a part of their degree program. Students must complete PHOT 104 with a grade of B or better to continue in the DVP curriculum.

Requirements for Graduation
To qualify for the Associate in Applied Science (A.A.S.) degree in Digital Video Production, a student must complete at least 60 credit hours and attain a grade point average of 2.0 ("C" average.)

DIGITAL VIDEO PRODUCTION			
Course Number and Name	**Prerequisites and Corequisites**	**Credits**	**Gen Ed Req**
FIRST SEMESTER			
PHOT 104 – Introduction to Video Production		3	
Math 118 –Intermediate Algebra or higher		3	Mathematics
PHOT 151, Digital Imaging		3	
ENGL 101 – English Composition I		3	ENG 101
CIS 103 – PC Applications		3	Tech Comp
SECOND SEMESTER			
DVP 120 – Camera and Lighting Techniques for Digital Video Production	PHOT 104 with grade B or better	4	
DVP 130 – Audio Techniques for Digital Video Production	PHOT 104 with grade B or better	4	
DVP 140 – Video Editing Techniques for Digital Video Production	PHOT 104 with grade B or better	4	
ENGL 102 - English Composition II	ENG 102	3	
THIRD SEMESTER			
ENGL 271 – Language of Film	ENG 101	3	
DVP 150 – Producing and Directing Techniques for Digital Video Production	PHOT 104 with grade B or better	4	
Social Science Elective		3	Social Science
Science Elective		3	Natural Science
Humanities Elective		3	Humanities
FOURTH SEMESTER			
DVP 210 – Advanced Techniques for Digital Video Production-Location	DVP 120,130,140,150	4	
DVP 220 – Advanced Techniques for Digital Video Production-Studio	DVP 120,130,140,150	4	
Photo 299 – Professional Practices	DVP 120,130,140,150	3	
Directed Elective*		3/4	
Total Credits to Graduate		60	

* Directed Electives to choose from
ENGL 205 Creative Writing
ENGL 282 Script Writing
ENGL 272 Topics in Film Study
PHOT 211-Event and Corporate Videography
DVP 240, Advanced Video Editing Techniques for Digital Video Production
ENGL 107-Society and Mass Communications
ENGL 116 Interpersonal Communication

General Education Requirements
All General Education requirements are met through required courses (as indicated above) except for the American/Global Diversity requirement. Therefore, in order to graduate, students in this program must choose one course that is designated American/Global Diversity. A list of courses that fulfill this requirement and a more detailed explanation of the College's general education requirements appear elsewhere in this Catalog and on *www.ccp.edu*

For More Information Contact:
The Division of Liberal Studies, Room BR-21, 1700 Spring Garden Street, Philadelphia, PA 19130, Telephone 215-751-8450; or the College Information Center, 215-751-8010.

VI. Program's Institutional Congruence

A. Relation to Other Programs within the College

The Digital Video Production Program is a direct complement to the Photographic Imaging Program. In the same way that the AAS in Photographic Imaging Program is designed to prepare students for employment in still photography and related fields, the Digital Video Production Program is designed to prepare students for employment in digital video production and related occupations. Potential students for either program have similar aptitudes and interests in visual technologies, differing in their preferences for the specifics of the varying fields. The curricula basically complement one another in that they are teaching skills that create different technological approaches to visual communication.

The faculty of the Photographic Imaging Department are now in the process of revising the Photographic Imaging Program to accommodate the latest advances in digital technology. Photo 104 will be the "gateway" course to the Digital Video Production Curriculum as students in the Digital Video Production Curriculum are required to complete Photo 104 with a grade of B or better. Students in the Digital Video Production Curriculum may complete Photo 211 as a directed elective.

This program conforms with the college-wide General Education requirements (See Proposed Catalog Page).

B. Location of the Program

The Digital Video Production Program will be housed in the Department of Photographic Imaging. While the Digital Video Production Program will require specialized equipment for instruction in specific related skills, the computer labs and equipment distribution systems already maintained in the Photographic Imaging Department can be shared with the new curriculum. Also some full time and part-time/Visiting Lecturer faculty already serving the Photographic Imaging Department are skilled and knowledgeable in digital video production and can serve as instructors in the new program.

C. Program Support Structure

Because of the specialized nature of the training, educational support is primarily provided from within the Photographic Imaging Department. Open laboratory sessions supervised by the current Photographic Imaging Laboratory Instructional Aide outside of class time are provided so that students may have the extra time necessary to complete assignments. The faculty in the department also work with, and encourage students to make use of, the existing College academic support facilities, especially the Counseling Department and the academic advisors, as well as the Learning Lab. The faculty of the Photographic Imaging Department work with these support areas to insure that students are given every possible opportunity to succeed in their chosen field. Instruction will be enhanced by providing field trips to operational digital video production facilities and by guest lectures by practicing professionals.

VII. Proposed Courses

The proposed Digital Video Production Program will require the creation of seven new courses, which are described in the following pages. Many of the topics in these Digital Video Production courses are touched upon briefly in the survey, and gateway course, PHOT 104, Introduction to video Production, but none of them are covered in a depth necessary to develop skills and experience required for obtaining employment in the digital video production field. In addition, in all of these Digital Video Production courses the students learn skills and receive operational experience with advanced, state-of-the-art, digital equipment that is not available to students in the survey course, PHOT 104.

DVP 120 – Camera and Lighting Techniques for Digital Video Production

Prerequisite PHOT 104 with grade B or better. Hours: 2-4-4
This course includes projects related to the advanced professional practices of video camera operation and lighting techniques as they relate to digital video production. It includes a review of the basics of video production theory and practice, comparison between the digital and analog technologies, advanced controls of the digital video cameras, techniques for controlling the camera, advanced concepts of the moving camera, types and varieties of shots used in professional production, camera mechanisms and electronics pertaining to professional cameras and accessories and practical experience using different professional grade cameras to videotape interviews, location "B-roll" footage, groups and theatrical productions.

This course also covers the advanced techniques of lighting as they pertain to digital video production including theory and physics of lighting, professional lighting instruments and techniques for video production, and practical experience with a variety of advanced lighting techniques, including on-camera, key with fill, and three point lighting as well as available light control. This course concludes with the compilation of the demo reel of camera and lighting examples.

Goals:

- Students master familiar with fundamental concepts of motion recording using film and video.
- Students will learn how to use advanced professional video cameras under a variety of conditions.
- Students will gain a fundamental knowledge of the physics and management of light.
- Students will learn to select lighting and camera techniques to match production requirements.

By the end of this course it is expected that the student will be able to:

- Describe the fundamental theory of capturing motion on film and video.
- Explain the differences between digital and analog video camera technologies.
- Identify the advanced electronic parts of a video camera and define their functions.
- Operate an advanced professional video camera to capture a scene including the camera set-up and obtaining correct exposures.

- Demonstrate the ability to obtain a variety of camera angles and shots to meet given advanced professional production requirements.
- Demonstrate the ability to obtain a set variety of moving camera shots to meet given advanced professional production requirements.
- Describe the basic physics of light theory as it pertains to digital video production.
- Identify and define the use of at least five different professional lighting instruments used in digital video production.
- Demonstrate advanced lighting techniques for interviews, groups, and theatrical productions.
- Use their knowledge of camera and lighting techniques to create:
    - A location interview
    - Location "B-roll" coverage
    - A group at a location
    - A theatrical scene at a location
- Create a digital portfolio of the completed assignments in this course.

Activities and Intellectual Processes

In conjunction with lectures and demonstrations, students will complete a series of lab tutorials and experiential assignments providing hands on experience with the material.
Students will complete projects related to the objectives of the course. These completed projects will become a digital portfolio of completed projects demonstrating their proficiency in camera operation and lighting techniques for digital video production. This will become a part of the series of digital portfolios that students can use in the process of applying for jobs in the field.

DVP 120 Camera and Lighting Techniques for Digital Video Production
Planned sequence of topics

CAMERA

Camera General
- Background
- History
- Theory
    - Lenses
    - Creating Motion
    - Transport
    - Shutters

Analog Video
- Types
- Functions

Digital Video
- Types
- Functions

Camera as part of a crew
- Crew responsibilities

Controlling the Advanced Professional Digital video camera
- Iris

- Shutter
- Tripods
- White/Black Balance
- Resolution inputs/outputs
- Video/Audio Monitors
- Audio Inputs
- Special controls

Shooting
- Types of shots for professional video production
  - Uses of shots
  - Continuity

The Moving Camera
- Types of moves
- Moving devices
  - Steadicam/Jib

Camera mechanics and electronics
- Exposure set up
- Color temperature controls
- Custom controls
- Maintenance

Camera on Location
- Location Interviews
- Location "B-roll" Coverage
- Location Groups
- Location Theatrical

LIGHTING

- Lighting General
  - Background
  - History
  - Theory
  - Physics
  - Color Temperature
  - Inverse Square Law
  - Measurement
- Lighting for professional video
  - Instruments
  - Controls
  - Styles
- Techniques
  - Simple 3-point
  - Complex locations and sets
  - Analog vs. Digital
  - Devices
- Lighting as part of a crew
  - Crew language and nomenclature
  - Crew responsibilities
- Practical Experience- Lighting techniques:
  - On Camera

Key with fill
3-point interview
Additional enhancements
Larger scale location
Location Theatrical
Studio Lighting

DVP 130 Audio Techniques for Digital Video Production

Prerequisite PHOT 104 with grade B or better. Hours: 2-4-4
This course includes projects related to the advanced practices of audio acquisition and production techniques as they relate to digital video production. It includes in-depth exploration of audio theory, comparison between the digital and analog technologies, advanced theory regarding analog and digital recording devices and microphone design and operation, techniques for acquiring professional quality audio for digital video productions, duties of the audio crew member, and practical experience acquiring audio for productions such as interviews, large groups, voice over narrations and theatrical productions. This course concludes with the compilation of a digital portfolio of audio acquisition examples.

Goals:

- Students master concepts of advanced audio acquisition for film and video production.
- Students will learn how to use specialized audio acquisition equipment under a variety of conditions.
- Students will master the physics and management of audio for digital video production.
- Students will learn to select and match professional digital audio acquisition equipment and techniques to digital video production requirements.

By the end of this course it is expected that the student will be able to:

- Describe the physics of audio.
- Describe the theory for audio acquisition pertaining to digital video production.
- Explain the differences between digital and analog audio technologies as used in digital video production.
- Identify and define the essential and advanced functional controls of audio recording devices used in digital video production.
- Identify and describe the similarities and differences between at least three types of microphones used in digital video production.
- Operate an audio recording device for digital video productions to acquire sound including the camera audio set-up and obtaining correct levels and talent presence.
- Demonstrate the ability to acquire audio using at least three different of types of microphones to meet given production requirements.
- Use their knowledge of audio acquisition techniques to create:
    - Audio for a video production of a location interview
    - Audio wild sound for a video production of location “B-roll” coverage
    - Audio for a video production of a group at a location
    - Audio for a voice over narration.
    - Audio for a theatrical production that includes a dialogue
- Create a digital portfolio of the completed assignments in this course.

Activities and Intellectual Processes
In conjunction with lectures and demonstrations, students will complete a series of lab tutorials and experiential assignments providing hands on experience with the material.

Students will complete projects related to the objectives of the course. These completed projects will become a digital portfolio of completed projects demonstrating their proficiency in audio acquisition techniques for digital video production. This will become a part of the series of digital portfolios that students can use in the process of applying for jobs in the field.

DVP 130 Audio Techniques for Digital Video Production
Planned sequence of topics

AUDIO
- Audio General
- Background
- History
- Theory
- Physics
- Analog Theory
- Digital Theory

Recording Devices for Digital Video Production
- Digital/Analog

Microphones for Digital Video productions
- Digital
- Analog
- Types
- Functions

Audio for Shooting Digital Video Productions
- Techniques
- Hand-held
- Lavaliere
- Directional
- The Boom
- Wireless
    - Wireless types
    - Wireless controls

Audio acquisition for Digital Video Productions - technical
- Camera set up
- Mixer set-up and uses
- Custom controls
- Maintenance

Audio as part of a crew
- Crew language and nomenclature
- Crew responsibilities

Practical Experience:
- Location Interviews
- Location wild sound
- Location Groups
- Location Theatrical
- Audio for a large group
- Audio for Theatrical Productions
- Voice Over Narration

DVP 140 Editing Techniques for Digital Video Production

Prerequisite PHOT 104 with grade B or better. Hours: 2-4-4
This course includes editing techniques as they relate to digital video production. It includes a foundation in the basics of video editing theory, the history and development of editing techniques from the early days of silent films to the addition of synchronous sound, similarities and differences between editing for motion pictures and editing for video, comparison between the digital and analog technologies, fundamentals of analog(linear) and digital(non-linear) editing techniques, overview of non-linear editing software, and basic techniques needed to complete the editing of a video production(preparation, assembly, transitions and effects, and outputs), and practical experience editing productions such as interviews, large groups, voice over narrations and theatrical productions. This course concludes with the compilation of the demo reel of basic editing examples.

Goals:

- Students master the fundamental concepts of editing for film and video production.
- Students will learn how to use editing software and equipment under a variety of conditions.
- Students will gain a fundamental knowledge of the principles of editing for digital video production.
- Students will learn to select and match editing techniques including styles, transitions, and titles to production requirements.-

By the end of this course it is expected that the student will be able to:

- Identify at least ten milestones in the history of editing for motion picture and video production.
- Describe and list the fundamental principles of editing for digital video production.
- Identify and define the essential functional controls of a digital non-linear editing system.
- Demonstrate the ability to operate a non-linear digital video editing system including, capturing, assembling, creating transitions and titles and outputting for a given use of the final production.
- Demonstrate the ability to capture video from at least three different sources to a non-linear editing system.
- Demonstrate the ability to assemble captured clips into a sequence of shots.
- Demonstrate the ability to create titles and graphics for an assembled sequence.
- Demonstrate the ability to create appropriate effects for a given sequence.
- Demonstrate the ability to add and control audio for a given sequence.
- Demonstrate the ability to deliver three different types of completed output videos from given sequences.
- Use their knowledge of non-linear video editing techniques to create:
    - An interview sequence
    - A dialogue sequence
    - A narrative sequence using voice over narration
    - A narrative documentary sequence using no voice over narration
    - A sequence demonstrating at least ten title and ten transition effects
- Create a digital portfolio of the completed assignments in this course.

Activities and Intellectual Processes

In conjunction with lectures and demonstrations, students will complete a series of lab tutorials and experiential assignments providing hands on experience with the material.
Students will complete projects related to the objectives of the course. These completed projects will become a digital portfolio of completed projects demonstrating their proficiency in non-linear editing techniques for digital video production. This will become a part of the series of digital portfolios that students can use in the process of applying for jobs in the field.

DVP-140 Editing Techniques for Digital Video Production
Planned sequence of topics

EDITING

Background
- History
- Analog Video Editing
- Digital Video editing
- Non-Linear Video Editing

Editing Techniques
- Language
- Styles

Preparation
- Logging
- Capturing
- Storyboarding
- Assembly
- Splits
- Additional video
- Additional audio
- Transitions
- Titles
- Outputs

Editing as part of a crew
- Crew language and nomenclature
- Crew responsibilities

Practical Experience:
- Using non-linear editors
- Capturing
- Assembly
- Splits
- Transitions
- Titles
- Music
- Animation
- Effects
- Outputs

Productions
Simple interview
Compilation of Final Reel

DVP 150 Producing and Directing Techniques for Digital Video Production

Prerequisite PHOT 104 with grade B or better. Hours: 2-4-4

This is a course in the fundamentals of producing and directing techniques as they relate to Digital Video Production. It includes a foundation in the basics of producing and directing motion picture and video production including an overview of the history and development of producing and directing motion pictures and video from the early days of silent films to today's complex productions The producer training includes pre-production skills and techniques needed to be a producer for digital video productions such as organizing projects, working with various participants, talent and crew members; participation in production activities such as scheduling, interviewing, and other administrative duties; post-production activities including editing supervision, narration management, selection of music and effects, and other duties. The director training includes an overview of the basic responsibilities of a director of digital video productions, pre-production skills in concept development, script review, storyboard creation, and casting; production skills including directing talent, crew, camera , audio and other aspects of the production; and post-production skills such as editing supervision, artistic decision making, and other skills necessary to complete the production. Practical experience is provided producing and directing productions such as interviews, electronic news gathering (ENG), and theatrical productions. This course concludes with the compilation of the demo reel demonstrating producing and directing skills.

Goals:

- Students master the fundamental concepts of producing for video production.
- Students master the fundamental concepts of directing for video production.
- Students master the fundamental steps of producing a project for digital video production.
- Students will learn a basic overview of directing for digital video production.
- Students will learn to how to execute the basic producer skills necessary to successfully produce a digital video production.
- Students will learn how to communicate with talent and crew in order to successfully complete a digital video production.

By the end of this course it is expected that the student will be able to:

- Compare and contrast the styles of at least three different noted video producers
- Compare and contrast the styles of least three different noted video directors
- Identify and describe at least seven important duties of a producer of digital video productions
- Identify and describe at least seven important duties of a director of digital video productions
- Demonstrate the ability to develop a concept for at least one given digital video production
- Demonstrate the ability to identify talent for at least one given digital video production
- Demonstrate the ability to acquire a crew for at least one given digital video production
- Demonstrate the ability to find a location for at least one given digital video production
- Demonstrate the ability to review a script for at least one given digital video production

- Demonstrate the ability to develop a storyboard for at least one given digital video production
- Demonstrate the ability to manage a production for at least one given digital video production
- Demonstrate the ability to supervise the editing for at least one given digital video production
- Demonstrate the ability to manage the post-production for at least one given digital video production
- Demonstrate the ability to identify and articulate a style for a given digital video production
- Demonstrate the ability to communicate and direct the performance of talent for a given digital video production
- Demonstrate the ability to choose an appropriate artistic style for a given video production
- Demonstrate the ability to coach and instruct a video editor to achieve a given style in a digital video production
- Use their knowledge of producing and directing techniques to create:
    - An interview sequence
    - A scripted dialogue sequence
    - An ENG news sequence
    - A complete 5-10 minute digital video production
- Create a digital portfolio of the completed assignments in this course

Activities and Intellectual Processes

In conjunction with lectures and demonstrations, students will complete a series of lab tutorials and experiential assignments providing hands on experience with the material.
Students will complete projects related to the objectives of the course. These completed projects will become a digital portfolio of completed projects demonstrating their proficiency in producing and directing techniques for digital video production. This will become a part of the series of digital portfolios that students can use in the process of applying for jobs in the field.

DVP 150 Producing and Directing Techniques for Digital Video Production
Planned sequence of topics

Producing

Producing General
- Background
- History
- Video Producing
- Silent
- Sound

Skills
- Pre-Production
    - Developing the concept
    - Working with SMEs
    - Identifying talent

- Identifying crew needs
- Identifying location needs
- Hiring crew
- Reviewing scripts
- Creating storyboards

Production
- Scheduling
- Shooting
- Interviewing
- Crew
- Locations
- Props
- Talent
- Model Releases
- Amenities

Post-Production
- Editing supervision
- Hiring narrator
- Identify effects and music
- Arrange for licenses
- Distribution and delivery

Producing as part of a crew
- Crew language and nomenclature
- Crew responsibilities

Directing

Directing General
- Background
- History
- Video Directing

Skills

Pre-Production
- Developing the concept
- Reviewing scripts
- Developing storyboards
- Talent and location specification
- Over all style specification
- Casting

Production
- Directing talent
- Directing crew
- Camera direction
- Audio needs
- Set needs

Post-Production
- Editing supervision
- Artistic decision making responsibility

Producing as part of a crew
- Crew language and nomenclature

Crew responsibilities

Practical Experience:

Interview

Event

ENG news coverage

Narrative/Theatrical

DVP 210 Advanced Techniques for Digital Video Production - Location

Prerequisite/ DVP 120,130,140,150. Hours: 2-4-4
This is a course in advanced digital video production focusing on location productions such as electronic news gathering, short documentaries, interviews and small news events, among others. In this course students will rotate through all of the roles of a production team while producing assigned projects to be broadcast on the CCP TV. All of the skills taught in the first year courses, DVP 120,130,140 and 150, will be reviewed, augmented and used on the production of these projects. This course concludes with the broadcast of the completed projects on the College's PEG CCPTV and a digital portfolio demonstrating location production skills.

Many of the skills taught in this course are similar to the skills taught in DVP 220 Advanced Techniques for Digital Video Production – Studio. However, these skills as they are applied to location digital video production described below are distinctly different from the applications of these skills to studio digital video production. This course is designed to teach the application of these skills in these specialized environments which are the circumstances that the students will encounter when they are employed in the field.

Goals:

- Students will learn to work on location production teams.
- Students will learn how to use skills learned in earlier courses to complete actual location assignments.
- Students will learn the the best practices for dealing with team project goals and deadlines.
- Students will learn how to apply appropriate technical and creative skills to given projects in order to complete successful productions.

By the end of this course it is expected that the student will be able to:

- Work with other students on at least four different assigned projects
- Develop a concept and story board for at least four different assigned projects
- Demonstrate the ability to be a producer/director for at least one of the four different assigned projects
- Demonstrate the ability to be a camera/lighting person for at least one of the four different assigned projects
- Demonstrate the ability to be an audio person for at least one of the four different assigned projects
- Complete at least four different assigned projects to a quality standard that qualifies the project for broadcast.
- Create a digital portfolio of the completed projects in this course

Activities and Intellectual Processes
In conjunction with lectures and demonstrations, students will complete a series four digital video productions assigned as part of the College's CCPTV programming. This will provide students with hands on experience in the actual work of digital video production. These completed projects will be broadcast on the College's CCPTV and become a digital portfolio of completed projects demonstrating their proficiency in location digital video production. This will

become a part of the series of digital portfolios that students can use in the process of applying for jobs in the field.

DVP 210 Advanced Techniques for Digital Video Production – Location
Planned sequence of topics

Basic Location Production Overview
- Background
- History
- Examples of different types of location Production

The Location Production Team
- Producer/Director
- Crew
- Editor

Location Production – From Concept to Storyboard
- The Pre production process
- Location Production – Acquiring the footage

The production process
- Location Production – Editing the Project

The Post Production Process
- Editing supervision
- Hiring narrator
- Identify effects and music
- Arrange for licenses

Location Production – Finalizing the production - output
Ongoing Production Reviews and Evaluations

DVP 220 Advanced Techniques for Digital Video Production -Studio

Prerequisite/ DVP 120,130,140,150. Hours: 2-4-4
This is a course in advanced digital video production focusing on studio productions. In this course students will rotate through all of the roles of a studio production team while producing a "live to tape" weekly television show to be broadcast on the College's CCPTV airing a new program each week for 10 consecutive weeks. All of the skills taught in the first year courses, DVP 120,130,140 and 150, will be reviewed, augmented and used in the production. This course concludes with a digital portfolio demonstrating studio production skills.

Many of the skills taught in this course are similar to the skills taught in DVP 210 Advanced Techniques for Digital Video Production – Location. However, these skills as they are applied to studio digital video production described below are distinctly different from the applications of these skills to location digital video production. This course is designed to teach the application of these skills in the specialized environment of the digital video production studio. This experience will parallel the circumstances that the students will encounter when they are employed in the field.

Goals:

- Students will learn to work on studio production teams.
- Students will learn how to use skills learned in earlier courses to complete actual studio broadcasts.
- Students will learn the best practices for dealing with team project goals and deadlines.
- Students will learn how to apply appropriate technical and creative skills to given projects in order to complete successful productions.

By the end of this course it is expected that the student will be able to:

- Work cooperatively as part of a digital video production team with other students on at least ten different live to tape digital video broadcasts.
- Demonstrate the ability to perform the duties of at least ten different crew roles involved in the broadcast of at least ten different live to tape digital video broadcasts including but not limited to, segment producer, production coordinator, director, camera operator, audio engineer, audio mixer, technical director, floor manager, lighting person, editor.
- Create a digital portfolio of the completed projects in this course.

Activities and Intellectual Processes
In conjunction with lectures and demonstrations, students will complete ten live to tape productions of a studio television show, assigned as part of the CCP TV programming. Students will rotate through each of at least ten crew roles during the class participating in a different role for each of the ten broadcast episodes. This will provide students with hands on experience in the actual work of digital video production in each episode. These episodes will be broadcast on the College's CCPTV and become a digital portfolio of completed projects demonstrating their proficiency in studio digital video production.

DVP 220 Advanced Techniques for Digital Video Production – Studio
Planned sequence of topics

Basic Studio Production Overview
- Background
- History
- Examples of different types of studio Production

The studio production team
- Producers (Segment and Broadcast)
- Director
- Camera operator
- Lighting
- Floor manager
- Audio
- Teleprompter-cue-card
- Technical director
- Editor
- Production assistants
- Talen**t**

Studio Production – From concept to storyboard
- The Pre-production process
- Studio Production – setting the crew
- Lessons Learned from Broadcast 1
- Studio Production – lighting the set

Ongoing weekly production reviews and evaluations

DVP 240 Advanced Video Editing Techniques for Digital Video Production

Prerequisite DVP 140. Hours: 2-4-4
This is a course in advanced editing techniques as they relate to digital video production. This builds on the skills and knowledge acquired in DVP 140, with basics of Chroma key, Compositing, Rotoscoping, ISO and Matched Action Editing, introductory and advanced animation techniques, advanced title creation and animation, digital enhancements, composite audio editing, advanced DVD authoring, design and output for web streaming and other contemporary techniques and practical experience editing documentary and theatrical type productions for assignments to be broadcast on CCPTV. Students will also complete a series of tutorials to reinforce skills learned in DVP 140. This course concludes with the compilation of the demo reel of advanced editing examples.

Goals:

- Students master advanced concepts of creating special editing effects.
- Students will learn how to use editing software and equipment to perform special effects editing.
- Students will gain advanced knowledge of the principles of creating special effects using advanced editing techniques.
- Students will learn to select and match advanced editing techniques including styles, transitions, and titles to production requirements.

By the end of this course it is expected that the student will be able to:

- Demonstrate the ability to apply Rotoscoping effects to a video production.
- Demonstrate the ability to apply Chroma-key effects to a video production.
- Demonstrate the ability to create compositing effects for a video production .
- Demonstrate the ability to create an animated title sequence for a given video production.
- Demonstrate the ability to create synchronized audio to an animated title sequence for a given video production.
- Demonstrate the ability to modify shots and clips using digital effects including, resizing, color balancing and adjusting video levels.
- Demonstrate the ability to composite multiple audio tracks for a given video production.
- Demonstrate the ability to author a DVD by creating a complete DVD menu and sub-menu structure for a given video production.
- Demonstrate the ability to deliver a completed video project in a form ready for web streaming for a given video production.
- Use their knowledge of advanced video editing techniques to create a complete video production from introductory title sequence to final credit roll, and deliver it on DVD.
- Create a digital portfolio of the completed assignments in this course.

Activities and Intellectual Processes
In conjunction with lectures and demonstrations, students will complete a series of lab tutorials and experiential assignments providing hands on experience with the material.
Students will complete projects related to the objectives of the course. These completed projects will become a digital portfolio of completed projects demonstrating their proficiency in

non-linear editing techniques for digital video production. This will become a part of the series of digital portfolios that students can use in the process of applying for jobs in the field.

DVP 240 Advanced Video Editing Techniques for Digital Video Production
Planned sequence of topics

EDITING

- History and Development of advanced video editing techniques.
- From analog to digital solutions
- General Compositing techniques
- Advanced digital modification of clips – Levels
- Advanced digital modification of clips – Color Balance
- Advanced digital modification of clips Matching and timing sequences
- Animating title sequences – from after effects to motion
- DVD Authoring Part 1 - Menus
- DVD Authoring Part 2 – Compression and Outputs
- Advanced Matched Action Editing, working with ISO productions
- Advanced Audio Management - Making it seem real
- Multi –track Audio Mixing
- Audio Sweetening

Animation for Advanced Digital Video Editing

- History of animation
- Techniques
  - Analog Animation
  - Digital Animation
  - Software Developments
  - Software Applications

VIII. Technology Requirements and Fiscal Implications

A. Budget

Since the primary goal of the Digital Video Production Program is to provide students with the technical skills and the practical experience necessary to enter the workforce as professional camera operators, audio and lighting technicians, video editors and producers in the digital video production field, it is essential that the students receive instruction using professional equipment that is used in the digital video production industry. This budget reflects the cost of obtaining this necessary equipment.

In order to make efficient use of capital resources, equipment acquired by CCPTV will be shared and used by students in the Digital Video Production Curriculum and equipment acquired by the Digital Video Production Curriculum will be shared and used by CCPTV.

There are no DVP courses in the first semester of the Program so no equipment is needed for the first semester to launch the Program.

Capital Equipment and Cost (listed by course and semester when it is needed):

	Costs	Applicable Courses
Equipment necessary for first semester (PHOT 104)		
a. Upgrade to high-end Macintosh computers in the video lab with appropriate Adobe Suite of Software, Final Cut Studio Pro Software, and Final Cut Pro Server Software:	$15,000*	Photo 104, PHOT 151, PHOT 152;DVP120,130,140,150,210,220,240
Subtotal of estimated costs of equipment needed for first semester:	**$15,000**	
Equipment necessary for second semester (DVP 120, 130, 140)		
b. Four professional broadcast remote camera kits including tripods and other accessories @ $20,000 each.	$80,000	DVP 120, 130,210,220
c. Four professional broadcast remote audio kits including field mixers, microphones and accessories @$5,000 each .	$20,000	DVP 120, 130,210,220
d. Four professional broadcast remote lighting kits including stands and accessories @$2,000 each .	$8,000	DVP 120, 130,210,220
Subtotal of estimated costs of equipment needed for second semester:	**$108,000**	
Equipment needed for third semester (DVP 150)		
None DVP 150 will use equipment purchased for DVP 120, 130, 140 (item a. above)	0	
Equipment needed for fourth semester (DVP 210, 220, 299)		
e. Newtek Tricaster Professional Studio with accessories .	$30,000	DVP 220
f. One additional Sony EX3 Professional video camera and accessories.	$15,000	DVP 220
g. Studio camera pedestals and camera accessories -	$5,000	DVP 220
Subtotal of estimated costs for equipment needed for fourth semester	**$50,000**	
GRAND TOTAL OF EQUIPMENT NECESSARY FOR FIRST TWO YEARS OF PROGRAM	**$173,000**	

*The $15,000 listed for hardware and software upgrades (item a.) is for equipment that will be used by both DVP and Photographic Imaging programs. This upgrade is needed for the Photographic Imaging Program separate from this proposal.

1. **Potential Sources of Capital**
    a. Perkins Local Plan
    b. Equipment Manufacturers
    c. Private Donors

2. **Projected Annual Operating Budget**
    a. Maintenance and Repair - $4,000
    b. Supplies: - $4,000

B. Space Requirements

Courses can be taught in existing spaces in the Photographic Imaging Department including B1-15 for computer based courses and B1-11 for lecture and demonstrations, B1-21 for television studio courses.

IX. Appendices

Appendix 1 – National Labor Statistics

Appendix 2 – Regional Labor Statistics

Appendix 3 – PA Job Projections

Appendix 4 – Colleges Offering Degrees in Digital Video Production

- **Montgomery County Community College**
- **Bucks County Community College**
- **Miami Dade College**
- **Art Institute of Philadelphia**
- **Drexel University**
- **Temple University**