

KINGSBOROUGH COMMUNITY COLLEGE
The City University of New York

CURRICULUM TRANSMITTAL COVER PAGE

Department: Communications and Performing Arts Date: Sept 15, 2017

Title Of Course Or Degree: MCB 4600 - Media Technology

Change(s) Initiated: (Please check)

- | | |
|---|--|
| <input type="checkbox"/> Closing of Degree | <input type="checkbox"/> Change in Degree or Certificate Requirements |
| <input type="checkbox"/> Closing of Certificate | <input type="checkbox"/> Change in Degree Requirements (adding concentration) |
| <input type="checkbox"/> New Certificate Proposal | <input type="checkbox"/> Change in Pre/Co-Requisite |
| <input type="checkbox"/> New Degree Proposal | <input type="checkbox"/> Change in Course Designation |
| <input type="checkbox"/> New Course | <input checked="" type="checkbox"/> Change in Course Description |
| <input type="checkbox"/> New 82 Course | <input checked="" type="checkbox"/> Change in Course Title, Numbers Credit and/or Hour |
| <input type="checkbox"/> Deletion of Course | <input type="checkbox"/> Change in Academic Policy |
| | <input type="checkbox"/> Pathways Submission: |
| | <input type="checkbox"/> Life and Physical Science |
| | <input type="checkbox"/> Math and Quantitative Reasoning |
| | <input type="checkbox"/> A. World Cultures and Global Issues |
| | <input type="checkbox"/> B. U.S. Experience in its Diversity |
| | <input type="checkbox"/> C. Creative Expression |
| | <input type="checkbox"/> D. Individual and Society |
| | <input type="checkbox"/> E. Scientific World |

Other (please describe): _____

PLEASE ATTACH MATERIAL TO ILLUSTRATE AND EXPLAIN ALL CHANGES

DEPARTMENTAL ACTION

Action by Department and/or Departmental Committee, if required:

Date Approved: Sept 8, 2017 Signature, Committee Chairperson: Gordon Young

I have reviewed the attached material/proposal

Signature, Department Chairperson: Gordon Young



TO: Fall 2018 Curriculum Committee

FROM: Department of Communications and Performing Arts

DATE: September 15, 2017

RE: Change in Course Hours for **MCB 46**

The Department of Communications & Performing Arts is proposing a change in course hours for **MCB 46**

FROM:

2 credits/2 hours

TO:

3 credits/3 hours

Rationale for Change:

The content covered this course has increased as we have attempted to align the course's content with guidelines from standards and practices organization The Society of Motion Picture and Television Engineers (SMPTE) a professional body to which our graduates will most likely belong once they are in the field. Having our course follow SMPTE guidelines helps to ensure our students will be able to transfer successfully to the four-year colleges that also follow these guidelines thus helping students to realize successful technical careers in TV and motion pictures. As the content for this course has increased this requires an additional classroom hour to allow this content to be implemented. Increasing this course from 2 credits/2 hours to 3 credits/3 hours allows the instructor to incorporate the course content recommended by professional standards and practices organizations (e.g., SMPTE).



TO: Fall 2018 Curriculum Committee

FROM: Department of Communications and Performing Arts

DATE: September 15, 2017

RE: Change in Course Description for **MCB 46**

The Department of Communications & Performing Arts is proposing a change in Course Description for **MCB 46**

FROM:

Basic broadcasting technology skills utilized in the field of radio and television and other audio and video applications. Topics include set-up, alignment, synchronization, interfacing of various equipment with an emphasis on professional industry trends and workflows.

TO:

A survey course designed for non-engineers covering motion picture, television, and radio technology with an emphasis on professional industry trends and workflows by providing a guide to understanding the technical world of radio and television broadcast engineering covering standards, video servers, editing, electronic newsrooms, and more.

Rationale for Change:

The description for this course was revised to clarify to students what they will study in the course. The previous description does not keep pace with how the course is currently taught as new content has been added as technology and educational guidelines have changed. The content of this course has changed as we have attempted to align the course's content with educational guidelines from The Society of Motion Picture and Television Engineers (SMPTE) a professional body to which our graduates will belong. Having our course follow SMPTE guidelines helps to ensure our students will be able to transfer successfully to the four-year colleges that also follow these guidelines thus helping students to realize successful technical careers in TV and motion pictures.

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Course Proposal

1. DEPARTMENT, COURSE NUMBER AND TITLE:

- A. Communications and Performing Arts
- B. Media Technology
- C. Course Number: MCB 04600

2. DOES THIS COURSE MEET DISTRIBUTION REQUIREMENTS?

No.

3. TRANSFERABILITY OF THIS COURSE. DESCRIBE HOW THIS COURSE TRANSFERS (required for A.S. degree course). If A.A.S. degree course and does not transfer, justify role of course, i.e., describe other learning objectives met:

Since most of the Media graduates transfer to Brooklyn College and The New York City College of Technology this course is designed to match their elective course requirements. However, it does match courses at CUNY offering technology programs.

4. BULLETIN DESCRIPTION OF COURSE:

A survey course designed for non-engineers covering motion picture, television, and radio technology with an emphasis on professional industry trends and workflows by providing a guide to understanding the technical world of radio and television broadcast engineering covering standards, video servers, editing, electronic newsrooms, and more.

5. NUMBER OF WEEKLY CLASS HOURS (please indicate the number of hours per week spent in a lab, hours spent on site doing fieldwork, hours of supervision and hours in classroom-- if applicable):

This is a 3 hour class; 3 hours of lecture per week.

6. NUMBER OF CREDITS:

This is a 3 credit course.

7. COURSE PREREQUISITES AND COREQUISITES

- A. PREREQUISITES: None
- B. COREQUISITES: None

8. BRIEF RATIONALE TO JUSTIFY PROPOSED COURSE TO INCLUDE:

- A. Enrollment Summaries, if previously offered as 82: N/A
- B. Projected Enrollment: 80 students per year
- C. Class Limits: 20 students per year
- D. Frequency Course is Likely to be Offered: 4-5 sections per year
- E. Role of Course in Department's Curriculum and College's Mission:

The Department of Communications & Performing Arts has housed the Media program for over 30 years. As an AS degree, its goal is to equip students for possible transfer to 4-year programs. This course will stimulate interest in motion picture, television, and radio technologies among students and encourage the development of future engineers for the motion picture and television industries and related fields by providing a comprehensive primer of television, radio, and digital media relating to broadcast.

9. LIST OF COURSES, IF ANY, TO BE WITHDRAWN WHEN COURSE(S) IS (ARE) ADOPTED:

N/A

10. IF COURSE IS AN INTERNSHIP OR INDEPENDENT STUDY OR THE LIKE, PROVIDE AN EXPLANATION AS TO HOW THE STUDENTS WILL EARN THE CREDITS AWARDED. THE CREDITS AWARDED SHOULD BE CONSISTENT WITH STUDENTS' EFFORTS REQUIRED IN A TRADITIONAL CLASSROOM SETTING:

This course is not an internship or an independent study.

11. PROPOSED TEXT BOOK(S) AND/OR OTHER REQUIRED INSTRUCTIONAL MATERIAL(S):

A Broadcast Engineering Tutorial for Non-Engineers, 4th Ed. (2014). Focal Press.
ISBN 10: 0415733391 | ISBN 978-0415733397

12. REQUIRED COURSE FOR MAJORS AND/OR AREA OF CONCENTRATION? (If course is required, please submit a separate transmittal with a degree requirement sheet noting the proposed revisions, including where course fits into degree requirements, and what course(s) will be removed as a requirement for the degree. NYSED guidelines of 45 crs. of Liberal Arts coursework for an A.A. degree, 30 crs. for an A.S. degree and 20 crs. of Liberal Arts for an A.A.S. degree must be adhered to for all 60 cr. programs).

This will be a required course for all Media majors.

13. IF OPEN ONLY TO SELECTED STUDENTS (specify):

This course is open to all students.

14. EXPLAIN WHAT STUDENTS WILL KNOW AND BE ABLE TO DO UPON COMPLETION OF COURSE:

1. To teach students the national and international standards for motion picture, television and radio broadcasting.
2. To have students understand the various methods of television and radio broadcast and motion picture projection technologies.
3. To have students gain the requisite knowledge to understand changes in the television broadcasting industry from standard definition analog to high definition digital and continuing technological advancements in the form of digital ultra-high definition.
4. To have students gain the knowledge to understand technology trends in traditional and non-traditional media.

15. METHODS OF TEACHING --eg., LECTURES, LABORATORIES, AND OTHER ASSIGNMENTS FOR STUDENTS, INCLUDING ANY OF THE FOLLOWING: DEMONSTRATIONS, GROUP WORK, WEBSITE OR E-MAIL INTERACTIONS AND/OR ASSIGNMENTS, PRACTICE IN APPLICATION OF SKILLS:

Lectures and demonstrations on the operation of broadcast equipment and current industry workflows and trends.

16. ASSIGNMENTS TO STUDENTS:

*Readings covering broadcast technology workflows and trends
Written assignments regarding broadcast industry terminology and practices*

17. DESCRIBE METHOD OF EVALUATING LEARNING SPECIFIED IN #15:

Attendance: 10% (which includes being prepared)
Midterm Exam: 30%
Formal Writing Assignment: 30%
Final Exam: 30%

18. TOPICAL COURSE OUTLINE (WHICH SHOULD BE AS SPECIFIC AS POSSIBLE REGARDING TOPICS COVERED, LEARNING ACTIVITIES AND ASSIGNMENTS):

- I. Broadcasting Basics
 - A. Types of Broadcasting
 - a. Analog Radio
 - b. Digital Radio

- c. Satellite Radio
- d. Analog Television
- e. Digital Television
- f. Satellite Television
- g. Cable Television
- h. Groups and Networks
- i. Internet Radio and Television
- B. Sound and Vision
 - a. Sound and Audio
 - b. Light and Video
 - c. Baseband
- C. Analog Color Television
 - a. NTSC
 - b. PAL and SECAM
 - c. HD Analog video
- D. Digital Audio and Video
 - a. Digital Audio
 - b. SD and HD Digital Video
 - c. Audio and Video Data Compression
- E. Information Technology
 - a. Binary
 - b. Computers
 - c. Storage
 - d. Computer Networks
- F. Radio Frequency Waves
 - a. Electronic Waves
 - b. Frequencies, Bands, Channels
 - c. RF Over Wires and Cables
- II. Studios, Production, and Playout Facilities
 - A. Radio Studios
 - a. Types of Studios, Studio Operations, System Considerations, Emergency Alert System, Audio Processing Equipment, Signal Distribution, IP-Based Studio Infrastructure ("Audio Over IP"), Ancillary Systems, Radio Master Control, Facilities for IBOC Operations, Radio Data Services, Internet Radio Operations, Other Considerations.
 - B. Television Studios and Playout Facilities
 - a. Station and Network Operations, Types of Studios, Studio Characteristics, System Considerations, Studio System, Ancillary Systems, Ingest and Conversion, IP-Based Studio Infrastructure, Television Master Control, Television Automation, ATSC Encoding and Multiplexing, Multicasting Operations, Closed Captioning, Video Description, Alternate Language Audio, PSIP Generator, Data Broadcasting Equipment, Advanced Programming

Services, Bitstream Distribution and Splicing, Signal Delivery to MVPD Headends, Internet TV Services.

- C. Remote Broadcasting
 - a. Radio News Gathering and Radio Remote Production
 - b. Television News Gathering and Television Remote Production
 - D. Links
 - a. Link Architecture, Contribution Links for Radio, and Contribution Links for Television
- III. Transmission standards and systems
- A. Analog Radio
 - B. IBOC Digital Radio
 - C. Alternate Radio Delivery Systems
 - D. NTSC, PAL, and SECAM Analog Television
 - E. ATSC 1.0 and 3.0 Digital Television
 - F. Worldwide Alternate Television Delivery Systems
 - G. Beyond ATSC 3.0
 - H. Television and Radio Transmitter Site Facilities
 - I. Radio Wave Propagation and Broadcast Regulation
- IV. Motion Picture and Episodic Television Workflows
- A. Analog Tape, Film, and Digital Acquisition
 - B. Post-Production Workflows
 - C. Finishing for Traditional and Non-Traditional Media
- V. Archiving for Major Motion Picture and Episodic Television
- A. Film Restoration, Preservation, Remastering
 - B. Digital REC, LOG, RAW Management and Archiving
- VI. Non-Traditional Media Delivery and Broadcast Requirements
- A. Netflix, Hulu Plus, and Amazon Video

A. SELECTED BIBLIOGRAPHY AND SOURCE MATERIALS:

Jones, Graham, & Pizzi, Skip. (2014). *A Broadcast Engineering Tutorial for Non-Engineers, 4th Ed.* Focal Press.

Grant, August E. and Medows, Jennifer H. (2016). *Communication Technology Update and Fundamentals. (15th ed.)*. Focal Press.

Mead, Donald C. (1999). *Direct Broadcast Satellite Communications: An MPEG Enabled Service.* Prentice Hall PTR.

Clifford, M. (1986). *Microphones. (3rd ed.)*. Blue Ridge Summit, NJ: TAB Books.

David, D. A. (1992). *Computer applications in music: A bibliography.* Madison, WI: A-R Editions.

Inglis, A. F., & A. C. Luther (1999). *Video engineering (3rd ed.)*.

New York: McGraw Hill.

Whitaker, J., & Benson, B.. (2001). *Standard Handbook of Audio Engineering*. McGraw-Hill.

Klien, L. The past, present and future of tape cartridges. *Radio Electronics* 62:80ff Aug '91.

McClimans, F. J. (1992). *Communications wiring and interconnection*. New York: McGraw Hill.

Jones, G.A., Layer, D.H., Osenkowsky, T.G., Williams, E.A. (2007). *NAB Engineering Handbook, (10th ed.)*. Focal Press.

Nelson, K. Y. Breaking the PC sound barrier. *Home Office Computing* 10: 16 Aug '92.

Patrick, D. R. & S. W. Fardo. (2008). *Electricity and electronics (10th ed.)*. Englewood Cliffs, NJ: Prentice Hall.

Zaza, T. (1991). *Audio design: sound recording techniques for film and video*. Englewood Cliffs, NJ: Prentice-Hall.

Please contact your Department Chairperson or Associate Dean Loretta DiLorenzo at the Office of Academic Affairs x5328, if you require any assistance completing a course proposal according to this format. Copies of this format are available electronically.