

Advertising Design and Graphic Arts

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PROGRAMS:

Art and Advertising Design/AAS
Communication Design/BTech
Graphic Arts Advertising Production Management/AAS
Graphic Arts Production Management/BTech
Desktop Publishing/Cert

FACULTY:

Professors: Aptekar, Hayes, Holden, Krashinsky, Mason, Wortzel
Assoc Profs: Carr, McVicker
Asst Profs: Adae, Biehl, Durham, Giuliani, Goetz, Michals, Mysan,
Nye, Petrillo, Quinn, Spevack
Chief CLT: Caputo
Sr CLTs: Miñon, Sherman, Vazquez
CLT: Saada

Associate in Applied Science in ART AND ADVERTISING DESIGN

The advertising design industry is one of the most creative and dynamic in the United States, employing over 284,000 people with annual expenditures of over \$300 billion. Advertising agencies, graphic design firms, corporate communications departments, publishing companies, television studios and other design-related operations offer many challenging and rewarding careers as advertising art directors, graphic designers, computer graphics and website designers, illustrators, comic book artists and packaging designers.

New York City, the leading center of advertising design in the United States, with over 2,000 advertising agencies, design studios, publishing and new media companies, offers graduates many possibilities for full-time or free-lance employment in the field.

Founded in 1946, the department has an outstanding 50+ year record of preparing men and women for creative careers in advertising, graphic design and communications media. It offers two degree programs in advertising design: a two-year lower-division program leading to the associate in applied science (AAS) in art and advertising design and a four-year program leading to the bachelor of technology (BTech) degree in communication design. The department also offers a certificate program in desktop publishing and AAS and BTech degree programs in graphic arts production management. For the convenience of those employed in the advertising design industry or elsewhere, the department offers courses during day and evening hours on either a full- or part-time basis.

The AAS degree program in art and advertising design provides students with a solid foundation in theory and current practices of

the advertising design industry and a core of liberal arts and science courses. Students are offered a broad range of foundation courses – from life drawing, design and color, painting, typography, photography and design studio procedures to advanced courses including computer graphics, advertising, illustration, web design, packaging design and an advertising design internship. The program prepares students for successful entry into the advertising design profession with broad knowledge of the industry, a solid foundation in liberal arts and sciences and a well-rounded portfolio.

In recent years, graduates of the program have been employed by such organizations as JC Penney, ABC-TV, SONY, Saatchi & Saatchi Advertising, Marriot, Book-of-the Month Club, DC Comics, Metropolitan Transit Authority, Simon & Schuster, McGraw-Hill, FCB Advertising, Fairchild Publications, Citicorp, Grey Advertising and many others. Some graduates have opened their own agencies, while others have gone on to earn baccalaureate and graduate degrees in the fields of advertising design, graphic design, fine arts and art education.

The Study Abroad Program

Since 1989, selected students may spend one semester at the University of Central England in Birmingham, England, studying European approaches to advertising and graphic design.

Placement in the Associate Program

Placement in the associate in applied science program requires a high school diploma or GED. Students need not have majored in art in high school, but it is desirable that entering students have taken some prior courses in typography, layout, design and drawing or painting.

Advanced Standing Credits

The student admitted as a transfer is advised to go to the office of the registrar to obtain an application for advanced standing and file it with the registrar during the announced filing period. Since there are differences in advertising design and graphic arts course offerings from one college to another, each application for advanced standing credits will be individually reviewed. Credit will be granted for courses taken at other colleges, if the courses are considered equivalent to those offered at New York City Technical College. Final determination of credits for advanced standing will be made by the registrar and the chair of the advertising design and graphic arts department.

Approximate additional costs other than tuition and college-wide fees

Textbooks	\$400
Professional Tools	\$300
Materials Fees	\$40
Supplies	\$600
Portfolio Preparation	\$150

REQUIRED COURSES IN THE MAJOR

		Credits
ADV 1100/AD 100	Design and Color	3
ADV 1113/AD 113	Life Drawing	3
ADV 1117/AD 117.1	Typographic Design I	2
ADV 1160/AD 160	Desktop Publishing	2
GRA 1100/GA 110	Foundations in Graphic Communications	3

GRA 1130/GA 130	Photography for Design and Graphic Arts	2
ADV 1200/AD 200	Visual Communications	3
ADV 1217/AD 217	Typographic Design II	2
ADV 1230/AD 230	Digital Photography for Design	2
ADV 1260/AD 260	Digital Imaging	2
ADV 2300/AD 300.1	Advertising Design I	3
ADV 2317/AD 317	Typographic Design III	2
ADV 2360/AD 360	Vector Art	2
ADV 2400/AD 400.1	Advertising Design II	3
ADV 2417/AD 417	Advanced Problems in Typography	2
Select two courses from the following:		
ADV 2121/AD 212	Three Dimensional Design	2
ADV 2213/AD 213.1	Structural Analysis	2
ADV 2215/AD 215	Printmaking	2
ADV 2220/AD 220	Painting and Composition	2
AD B: 2/3 credits selected from the following:		
ADV 2313/AD 313.1	Illustration I	2
ADV 2412/AD 412	Packaging Design	2
ADV 2413/AD 413	Illustration II	2
ADV 2900/AD 900	Advertising Design Internship	3
Subtotal		40/41
OTHER REQUIRED COURSES		
ENG 1101/EG 101	English Composition I	3
ENG 1121/EG 121	English Composition II	3
LAP ³	Art History/ARTH 1000 Series/HU 100 AFR 1301/AF 301 or AFR 1304/AF 304	3
BS/SS ²	Behavioral Science/Social Science	3
MATH 1 ²	Mathematics	4
PHYS/SCI 1 ²	Laboratory Science	4
Subtotal		20
TOTAL CREDITS REQUIRED FOR THE DEGREE		60/61

¹ Additional electives with department permission: ADV 3540/AD 540, ADV 3550/AD 550, ADV 3640/AD 640, GRA 3160/GA 316

² See page 34 for detailed explanation of core required courses and categories.

³ Those pursuing the BTech degree must select a HU (Art History) course from the LAP elective category.

Bachelor of Technology in COMMUNICATION DESIGN

Today, advertising and communication design is dominated by digital technology: from large creative departments to small companies that outsource work to specialists; from traditional print and TV media to multimedia and interactive design. Although entry-level jobs are a first step for either AAS or BTech graduates, employees with a

baccalaureate degree are considered more prepared for promotion in the industry. The upper-division courses in communication design are based on those in the AAS degree program. AAS foundation courses integrate design theory and practice. Baccalaureate-level course work builds on that foundation and offers additional tools for professional advancement. In the bachelor's program, a choice of career tracks allows students to specialize in either advertising design, graphic design, web design or digital video/multimedia and explore the multi-faceted world of communication design. Advanced electives available to students in all four tracks will encourage them to investigate topics in advertising, graphic design, packaging design and typography. Students may further develop their design and communication skills by taking electives including desktop publication design, digital video, 2-D and 3-D animation, multimedia, photography, speech, business management and advertising production management. A core of advanced design courses will prepare students to meet the challenges of the profession: senior project, portfolio, the design team and an internship. The department also continually modifies its curriculum to reflect current practices in the profession by offering new and experimental courses in the latest technical advances, including web design and animation. For more information about these courses, contact the department chairperson.

BTech graduates should expect rapid progress from entry-level positions to managerial positions in such job classifications as assistant art director to art director, assistant creative director to creative director, junior designer to senior designer and design studio assistant to design manager, to name a few progressions.

Admission to the Bachelor of Technology Program

There are many ways a student can enter the bachelor of technology program in communication design. Students who enter the program as freshmen must meet the College standards. For more information on these guidelines, see pages 9, 32. Students who do not meet these guidelines may be admitted into the AAS degree program in art and advertising design and apply to transfer into the BTech program after achieving CUNY certification in reading, writing and mathematics. Students may also enter from other programs either here at City Tech or from other colleges. It is not necessary to have earned an associate degree at all. Transcripts and portfolios of entering students will be evaluated to determine the courses they must complete for the bachelor of technology degree. The department also has articulation agreements with Borough of Manhattan, Bronx and Kingsborough community colleges. Students from these colleges who complete all their course requirements will not be required to take more than 60 credits to complete the BTech program. Please consult the department for further information.

All students admitted to programs of upper-division study in The City University of New York are required to meet standards of proficiency in reading, writing and mathematics, demonstrated by passing CUNY skills assessment tests in these three areas to become eligible for baccalaureate-level courses. Those who do not achieve the necessary certification upon entry must complete developmental courses. Students who have not achieved certification in all three areas will be denied access to communication design courses.

Advanced Standing Credit

There are great differences in advertising design course offerings from one college to another. Credit will be granted for courses taken at other colleges if the courses are considered equivalent to those offered at New York City College of Technology. Final determination of credits for advanced standing granted to any student in this department will be made by the registrar of New York City College of Technology and the chair of the Advertising Design and Graphic Arts department.

Approximate additional costs other than tuition and college-wide fees for the baccalaureate degree program:

Textbooks	\$750
Materials and supplies	\$1500

REQUIRED COURSES IN THE MAJOR		Credits
AAS Degree		60
ADV 4700/AD 700	The Design Team	2
ADV 4800/AD 800	The Portfolio	2
ADV 4830/AD 830	Senior Project	3
ADV 4900/AD 900.1	Internship in Advertising/Graphic/Web/Multimedia Design	3
Subtotal		10
OTHER REQUIRED COURSES		
ARTH/HU	Art History (core)	3
Subtotal		3
ELECTIVE COURSES		
Choose one group from the following for 15 credits:		
Advertising Design		
ADV 3500/AD 500	Advertising Projects I	3
ADV 3502/AD 502	Topics in Advertising	3
ADV 3600/AD 600	Advertising Projects II	3
ADV 3620/AD 620	Digital Video Design I	3
GRA 3532/GA 532	Print Production for Designers	3
Graphic Design		
ADV 3501/AD 501	Graphic Design Projects I	3
ADV 3501/AD 503	Topics in Graphic Design	3
ADV 3601/AD 601	Graphic Design Projects II	3
ADV 3611/AD 611	Desktop Publication Design I	3
GRA 3532/GA 532	Print Production for Designers	3
Web Design		
ADV 3550/AD 550	Web Page Design and Implementation	3
ADV 3560/AD 560	Information Design for the WWW	3
ADV 3650/AD 650	Advanced Web Design	3
ADV 4750/AD 750	Advanced Web Animation	3
ADV 4850/AD 850	Advanced Web Strategies for Design	3
Digital Video/Multimedia		
ADV 3620/AD 620	Digital Video Design I	3

ADV 3630/AD 630	Digital Video Design II	3
ADV 4720/AD 720	Multimedia Design I	3
ENT 3390/ST 391	Sound for Multimedia	3
ADV 4860/AD 860	Streaming Media	3
Subtotal		15

OTHER AD ELECTIVE COURSES

Select a total of three courses from the electives listed below: (Prerequisites: ADV 2400/AD 400.1 and ADV 2417/AD 417 or department permission)

ADV 3500/AD 500	Advertising Projects I	3
ADV 3501/AD 501	Graphic Design Projects I	3
ADV 3502/AD 502	Topics in Advertising	3
ADV 3503/AD 503	Topics in Graphic Design	3
ADV 3530/AD 530	Advanced Photography Studio	3
ADV 3540/AD 540	Two Dimensional Animation	3
ADV 3550/AD 550	Web Page Design and Implementation	3
ADV 3620/AD 620	Digital Video Design I	3
ADV 3640/AD 640	3-D Animation and Modeling I	3
GRA 3532/GA 532	Print Production for Designers	3

(Prerequisites: See program advisor or college catalog for detailed information about these courses)

ADV 3630/AD 630	Digital Video Design II	3
ADV 4711/AD 711	Desktop Publication Design II1	3
ADV 4720/AD 720	Multimedia Design I	3
ADV 4740/AD 740	3-D Animation and Modeling II	3
ADV 4820/AD 820	Multimedia Design II	3
ADV 4860/AD 860	Streaming Media for the Web	3
GRA 2412/GA 412	Desktop Presentations	3
ENT 3390/ST 391	Sound for Multimedia ²	3
AC BUS 2425/AC 425	Business Management	3
ENG 3700/EG 533	Advanced Technical Writing	3
ARTH/HU	Art Electives	3
CST/CS	Computer Information Systems Web Module Courses	3
Subtotal		12

REMAINING BACCALAUREATE CORE DISTRIBUTION

COMM	SPE 1330/TS 300 Series (Speech)	3
ENG 2700/EG 171	Advanced Career Writing	3
MAT 1280/MA 280	Quantitative Mathematics	4
LAP ⁴	Literature	3
PHYS/SCI 2 ⁴	Laboratory Science	4
BS ⁴	Behavioral Science	3
SS ⁴	Social Science	3
Subtotal		23

TOTAL CREDITS REQUIRED FOR THE DEGREE **120**

¹ May be offered every third semester.

² Requires entertainment technology department permission.

³ Requires computer systems technology department permission.

⁴ See page 34 for detailed explanation of core required courses and categories.

Graphic Arts

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Associate in Applied Science in GRAPHIC ARTS ADVERTISING PRODUCTION MANAGEMENT

This program is designed for students seeking a career in the New York area's multi-billion dollar graphic arts industry, which includes advertising, printing, publishing, corporate communications, packaging, labeling, and new media. Students learn theory followed by laboratory work using current industry specifications and standards. A knowledge base and skill sets are developed through courses in office systems, estimating, imaging, page assembly, prepress, presswork, binding and finishing, quality control and customer service. Students also learn about current industry developments through lectures, field trips, guest speakers and participation in industry events.

Students may obtain the AAS degree and then continue their studies in the BTech in graphic arts production management program. It is not necessary to complete the AAS degree to transfer to the baccalaureate program. This may be done after completing 24 credits and achieving CUNY certification in reading, writing and mathematics. The AAS degree will be earned upon completion of the required 60 credits.

Graduates of the AAS program qualify for such positions as assistant production managers, customer service representatives, sales people, estimators, desktop publishing operators, imaging and scanning operators, quality control specialists, prepress technicians and magazine book make-up coordinators.

Employers of graduates include Newsweek magazine, RR Donnelley, TanaSeybert, AOL-Time-Warner, Condé Nast Publications, Young & Rubicam Advertising Agency, The New York Times, Arlington Press, Quad Graphics and Quebecor World.

REQUIRED COURSES IN THE MAJOR		Credits
GRA 1110/GA 110	Foundations in Graphic Communications	3
GRA 1130/GA 130	Photography for Design and Graphic Arts	2
GRA 1150/GA 150	Graphic Arts Management Office Systems	3
ADV 1160/AD 160	Desktop Publishing	2
GRA 1209/GA 209	Impositions, Plates and Proofs	2
ADV 1260/AD 260	Digital Imaging	2
GRA 1213/GA 213	Black and White Press Work	2
GRA 2300/GA 300	Color Reproduction Theory	2

GRA 2301/GA 301	Ink and Color Analysis	2
GRA 2303/GA 303	Desktop Publishing Production I	3
GRA 2317/GA 317	Graphic Arts Estimating I	3
ADV 2360/AD 360	Vector Art	2
GRA 2406/GA 406	Production Management Systems I	3
GRA 2419/GA 419	Quality Control Management Systems	3

Select two courses from the following:

GRA 2313/GA 313	Color Presswork	3
GRA 2316/GA 316	Digital Imaging Production	3
GRA 2412/GA 412	Desktop Presentations	3
GRA 2417/GA 417	Graphic Arts Estimating	3
GRA 2900/GA 900	Graphic Arts Internship	3
ADV 3550/AD 550	Web Page Design and Implementation	3
MKT 1102/MK 102	Principles of Selling	3
MKT 1214/MK 214	Advertising	3

Subtotal 40

OTHER REQUIRED COURSES

ENG 1101/EG 101	English Composition I	3
ENG 1121/EG 121	English Composition II	3
MAT 1180/MA 180	Mathematical Concepts and Applications	4
PHYS/SCI 1 ¹	Laboratory Science A	4
LAP ¹	Literature	3
BS/SS ¹	Behavioral Science/Social Science	3

Subtotal 20

TOTAL CREDITS REQUIRED FOR THE DEGREE 60

The College will grant an associate in applied science degree (AAS) with a major in graphic arts advertising production management upon satisfactory completion of the required 60 credits listed.

¹ See page 34 for detailed explanation of core required courses and categories.

Bachelor of Technology in GRAPHIC ARTS PRODUCTION MANAGEMENT

The bachelor of technology degree (BTech) is for students who are motivated towards a career in the managerial and supervisory activities within the graphic arts fields: advertising, printing, publishing, graphic communications and new media.

The curriculum in the baccalaureate program provides students with managerial expertise and builds upon the skills learned in the AAS program. It offers production management with practical applications and enables the student to have the flexibility of making career changes among the major areas of the graphic arts. Emphasis is placed on the use of state-of-the-art equipment and technology with major use of computers and related systems. Students acquire proficiency in executive, sales, managerial, technical and supervisory activities. They also gain the knowledge

and skills necessary to function as graphic arts production managers, responsible for monitoring, controlling and processing all print media and capable of interpreting graphic and visual information. As part of their program of study, students attend lectures, work in laboratories and go on field trips to leading advertising agencies, service bureaus, publishing houses, corporations and printing plants.

There are many ways a student can enter the bachelor of technology program in graphic arts production management. Students may enter the program as freshmen if they meet the general College criteria on pages 9, 32. These students will follow the graphic arts AAS curriculum for the first 60 credits and may earn the AAS along the way. Students may transfer in from the City Tech AAS program in graphic arts or art and advertising design before or after completing the AAS degree. Students may enter from other programs either here at City Tech or from other colleges if they meet College criteria for transfer admission. It is not necessary to have earned an associate degree in graphic arts, or to have earned an associate degree at all. Transcripts of entering students will be evaluated to determine the courses they must complete for the BTech degree. Please consult the admissions office or the department for further information.

Job titles for which graduates qualify may include production or traffic manager, quality control manager, prepress supervisor, color imaging manager, sales manager, purchasing agent, print buyer, book makeup coordinator, plant manager, and manufacturing supervisor. Among the employers of BTech graduates are Newsweek magazine, RR Donnelley, TanaSeybert, AOL-Time-Warner, Condé Nast Publications, Young & Rubicam Advertising Agency, The New York Times, Arlington Press, Quad Graphics and Quebecor World.

Required major courses for graphic arts AAS	40
Remaining core distribution for the AAS	20
Subtotal of AAS courses	60

REQUIRED COURSES IN THE MAJOR		Credits
GRA 3508/GA 508	Desktop Publishing Production II	3
GRA 3515/GA 515	Production Management Systems II	2
GRA 3516/GA 516	Binding and Finishing Operations	2
GRA 3600/GA 600	Topics in Graphic Arts Management	2
GRA 3607/GA 607	Digital Data Asset Management	3
GRA 3612/GA 612	Print-On-Demand Management	3
GRA 4712/GA 712	Portable Document Formats	2
GRA 4715/GA 715	Project Management and Workflow Analysis	2
GRA 4732/GA 732	Advanced Digital PreFLyt	3
GRA 4800/GA 800	The Graphic Arts Production Team	3
GRA 4900/GA 900.1	Graphic Arts Internship	3

Select nine credits from the following:

GRA 3513/GA 513	Digital Color Presswork	3
GRA 3611/GA 611	Vector Art Editing	3
GRA 4817/GA 817	Estimating and Cost Control Systems	3
GRA 4830/GA 830	Senior Project	3
ADV 3550/AD 550	Web Page Design and Implementation	3
ADV 3620/AD 620	Digital Video Design	3
ADV 3650/AD 650	Advanced Web Design	3
ADV 4720/AD 720	Multimedia Design I	3

Subtotal 37

OTHER REQUIRED COURSES

EG 171	Advanced Career Writing	3
EN 1	Economics	3
HI 1	History	3
MAT 1280/MA 280	Quantitative Mathematics	4
LAP ¹	Literature/Aesthetics/Philosophy	3
SCI 2 ¹	Laboratory Science B	4
TS 300 ¹	Series: Speech	3

Subtotal 23

TOTAL CREDITS REQUIRED FOR THE DEGREE 120

¹ See page 34 for detailed explanation of core required courses and categories.

Certificate in DESKTOP PUBLISHING

This 30-credit certificate program enables individuals currently working in the graphic arts industry to update their knowledge and gain new skills. Desktop publishing is used to produce newsletters, brochures, direct mail and a wide range of other materials, including new media.

Desktop publishing has had a major impact on the graphic communications industry. There is a strong demand for a trained workforce with specialized technical knowledge and skills. This program provides the training in a variety of areas including: office systems, imaging, vector art graphics, page assembly, quality control management, and applied color theory. Two essential courses are for Impositions, Plates and Proofs and Black and White Presswork.

Successful completion of the certificate program requires 30 credits, 24 credits in the major and 6 credits in liberal arts. Credits earned in the program are also transferable to the associate in applied science (AAS) degree in graphic arts advertising production management and to the bachelor of technology (BTech) degree in graphic arts production management.

Graduates may be promoted from their current positions to jobs working as desktop publishing operators, customer service representatives, printing specialists, vector art editors, and magazine production coordinators.

REQUIRED COURSES IN THE MAJOR		Credits
GRA 1110/GA 110	Foundations in Graphic Communications	3
ADV 1160/AD 160	Desktop Publishing	2
GRA 1209/GA 209	Impositions, Plates and Proofs	2
GRA 1213/GA 213	Black and White Presswork	2
ADV 1260/AD 260	Digital Imaging	2
GRA 2300/GA 300	Color Theory and Practice	2
ADV 2360/AD 360	Vector Art	2
GRA 2419/GA 419	Quality Control Management Systems	3
Subtotal		18
Select six credits from the following:		
GRA 1150/GA 150	Graphic Arts Management Office Systems	3
GRA 2303/GA 303	Desktop Publishing Production I	3
GRA 2313/GA 313	Color Presswork	3
GRA 2317/GA 317	Graphic Arts Estimating I	3
ADV 3550/AD 550	Web Design I	3
GRA 3513/GA 513	Digital Color Presswork	3
Subtotal		6
OTHER REQUIRED COURSES		
ENG 1101/EG 101	English Composition I	3
COMM	TS 300 series (Speech)	3
Subtotal		6
TOTAL CREDITS REQUIRED FOR CERTIFICATE		30

COURSES:**ADV 1100/AD 100
Design and Color***1 cl hr, 5 lab hrs, 3 cr*

The study of graphic elements and principles. Development of sensitivity to the nature of graphic relationships and their control within a given framework. The solution of problems of an abstract, conceptual, expressive and applied character, integrated with problems in color, its characteristics, physical properties and psychological effects in relation to visual expression and practical graphic application.

Corequisites: ENG 092R/DR 092 (ESOL 032/EL 032), ENG 092W/IEG 092 (ESOL 031/EL 031), or CUNY certification in reading, writing and mathematics

**ADV 1113/AD 113
Life Drawing***1 cl hr, 5 lab hrs, 3 cr*

A basic drawing course using the human figure to develop sensitivity to line, form, value, light, shadow, space and control of the picture plane. Various techniques and media are used.

Corequisites: ENG 092R/DR 092 (ESOL 032/EL 032), ENG 092W/IEG 092 (ESOL 031/EL 031), or CUNY certification in reading, writing and mathematics

**ADV 1117/AD 117.1
Typographic Design I***1 cl hr, 2 lab hrs, 2 cr*

Development of lettering skills and the rendering of letter forms. Introduction to the basic alphabet families and their uses in designing for print and digital media.

Corequisites: ENG 092R/DR 092 (ESOL 032/EL 032), ENG 092W/IEG 092 (ESOL 031/EL 031), or CUNY certification in reading, writing and mathematics; pre- or corequisite: ADV 1160/AD 160

**ADV 1160/AD 160
Desktop Publishing***1 cl hr, 2 lab hrs, 2 cr*

Students learn basic typography and page assembly techniques including elements, measurements, fonts, settings and configurations, proofreading mark-ups and corrections, altered file naming conventions and storage organizations.

Emphasis is on the proper use of keyboard controls and the relationship that type has to page assembly using software such as QuarkXpress on the Macintosh operating system.

Corequisites: ENG 092R/DR 092, ENG 092W/IEG 092, or CUNY certification in reading, writing and mathematics; pre- or corequisite: ADV 1117/AD 117.1

**ADV 1200/AD 200
Visual Communications***1 cl hr, 5 lab hrs, 3 cr*

The exploration of creative visual thinking. Media techniques and graphic elements in the communication of concepts and ideas. The development of basic skills in the preparation of roughs; visuals; comps for print, film and computer graphics. The integration of graphics and type.

Prerequisites: ADV 1100/AD 100, ADV 1113/AD 113, ADV 1117/AD 117.1, ADV 1160/AD 160, GRA 1110/GA 110

**ADV 1212/AD 212
Three-Dimensional Design
AD elective***1 cl hr, 2 lab hrs, 2 cr*

Principles of three-dimensional design. Topics include: geometric solids, architectonic organization of space, light and shadow, relief, the modular unit, motion, form and structure in nature. Applications to packaging, architecture, sculpture, environmental graphics.

Investigation of the relationship between material and form.

Prerequisites: ADV 1100/AD 100, ADV 1113/AD 113

**ADV 1213/AD 213.1
Structural Analysis****AD elective***1 cl hr, 2 lab hrs, 2 cr*

Introduction to structural drawing and the rendering of three-dimensional form. Perspective, composition, light and shade. Merchandise and decorative drawing techniques from the preparatory and pre-rendered stages of representation through the layout stage. Use of dry media in both black and white and color.

Prerequisites: ADV 1100/AD 100, ADV 1113/AD 113

**ADV 1215/AD 215
Printmaking****AD elective***1 cl hr, 2 lab hrs, 2 cr*

The study and practice of fine art printmaking techniques: etching, lithography, relief printing methods and silk-screen.

Prerequisites: ADV 1100/AD 100, ADV 1113/AD 113

**ADV 1217/AD 217
Typographic Design II***1 cl hr, 2 lab hrs, 2 cr*

Refinement of technical skills in rendering comps and finished letterforms. Assignments in composing headline and text type combined with computer-based applications. Introduction to creative typographic problems, including logo and letterhead design.

Prerequisites: ADV 1117/AD 117.1, ADV 1160/AD 160

**ADV 1220/AD 220
Painting and Composition
AD elective***1 cl hr, 2 lab hrs, 2 cr*

The exploration of imagery and visual ideas in traditional painting genre including still life and the figure. Interpretive use of graphic components and painting techniques in visual expression.

Prerequisites: ADV 1100/AD 100, ADV 1113/AD 113

**ADV 1230/AD 230
Digital Photography
for Design***1 cl hr, 2 lab hrs, 2 cr*

Introduction to the fundamentals of digital photography. The course builds on B&W concepts acquired in GA 130 and by studying the principles of color photography. Topics include comparison of analog and digital photography procedures, CMY and RGB color theory, digitizing photo proofs and transparencies, image file formats. Using professional hardware and software, the student will gain first-hand experience in creating, capturing and processing digital images.

Prerequisites: GRA 1130/GA 130, ADV 1260/AD 260

**ADV 1260/AD 260
Digital Imaging***1 cl hr, 2 lab hrs, 2 cr*

Basic digital imaging definitions, terminology and techniques including: elements; measurements; formats; settings; art direction mark-ups and corrections; controls such as curves and levels; tools such as selection, quick mask, or clipping path; file naming conventions; and storage organizations are studied.

Emphasis is on the proper use of keyboard controls. Students practice skills individually and in teams.

Introduction to digital imaging through software such as Adobe Photoshop on the Macintosh operating system. Scanning and digital photography are integrated.

Prerequisites: ADV 1160/AD 160, GRA 1130/GA 130

ADV 2300/AD 300.1**Advertising Design I**

1 cl hr, 5 lab hrs, 3 cr

The design of advertisements for print and digital media. Campaign planning, marketing. Developing concepts from rough visualization through comps to final digital output.

Prerequisites: ADV 1200/AD 200, ADV 1217/AD 217, ADV 1230/AD 230, ADV 1260/AD 260

ADV 2313/AD 313.1**Illustration I**

1 cl hr, 2 lab hrs, 2 cr

Drawing techniques for advertising, comic and editorial art. Emphasis on basic drawing skills. The use of wet media in both black and white and color rendering.

Prerequisites: ADV 1213/AD 213.1, CUNY certification in reading, writing and mathematics

ADV 2317/AD 317**Typographic Design III**

1 cl hr, 2 lab hrs, 2 cr

Practical application of professional skills in lettering and typography. Problems in the design of book covers, magazine spreads, logotypes and invitations. Preparation of finished digital output for portfolio presentation.

Prerequisites: ADV 1160/AD 160, ADV 1217/AD 217; *corequisite:* CUNY certification in reading, writing and mathematics

ADV 2360/AD 360**Vector Art**

1 cl hr, 2 lab hrs, 2 cr

An overview of basic vector art definitions, terminology and techniques including: elements, measurements, formats, settings, altered file naming conventions and storage organizations for digital linework such as logos and logotype. Emphasis on the proper use of keyboard controls and the development of professional work practices. Students practice skills individually and in teams.

Introduction to vector art through software such as Adobe Illustrator and scanning tools on the Macintosh operating system.

Prerequisite: ADV 1260/AD 260

ADV 2400/AD 400.1**Advertising Design II**

1 cl hr, 5 lab hrs, 3 cr

Advertising agency and studio procedures. Portfolio preparation, direct-mail promotional and editorial design, television graphics, campaign planning. Imaginative use

of photography and illustration in layouts. Integration of design and software applications.

Prerequisites: ADV 1260/AD 260, ADV 2300/AD 300.1, ADV 2317/AD 317; *pre- or corequisite:* ADV 2360/AD 360

ADV 2412/AD 412**Packaging Design****elective**

1 cl hr, 2 lab hrs, 2 cr

Graphic and structural aspects of packaging design, production and marketing. Methods of product protection and display are explored through a wide range of projects from the gift package to cartons and plastic containers.

Prerequisites: ADV 2300/AD 300.1, ADV 2360/AD 360, ADV 2313/AD 313.1, ADV 2317/AD 317

ADV 2413/AD 413**Illustration II****elective**

1 cl hr, 2 lab hrs, 2 cr

Problems in the creation and composition of finished illustrations. Exploration of the figure in a variety of interior and exterior spaces. Illustration for editorial, advertising, children's books, and on-site reporting. Techniques include gouache, watercolor, wash, pen and ink.

Prerequisite: ADV 2313/AD 313.1

ADV 2417/AD 417**Advanced Problems in Typography**

1 cl hr, 2 lab hrs, 2 cr

Integration of typography and computer technology. Traditional and computer methods of copyfitting. Typographic problems with word processed files and software such as QuarkXpress. Exercises in punctuation, tracking, kerning, initial caps. Copy markup and proofreading. Design of tables, formal charts and graphs.

Prerequisite: ADV 2317/AD 317; *corequisite:* ADV 2360/AD 360

ADV 3500/AD 500**Advertising Projects I**

3 cl hrs, 3 cr

An in-depth exploration of the creative advertising campaign and related media. Working individually and/or in groups, students research and develop creative concepts and design packaged goods and public service sector campaigns.

Preparation of finished artwork using current software such as QuarkXpress.

Prerequisite: ADV 2400/AD 400 level courses or equivalent

ADV 3501/AD 501**Graphic Design Projects I**

3 cl hrs, 3 cr

The role of the designer in the graphic communication process. In-depth exploration of identity programs and signage systems. Design projects with multiple components, presentation and design practice, preparation of finished artwork using software such as QuarkXpress, Adobe Photoshop and Adobe Illustrator.

Prerequisite: ADV 2400/AD 400 level courses or equivalent

ADV 3502/AD 502**Topics in Advertising**

3 cl hrs, 3 cr

Historical development of the advertising agency; the "creative revolution" and its legendary practitioners, trends and outlook. Marketing concepts and advertising strategy: objectives, research, creative development and execution of the advertising campaign. Visual and copy solutions for print and electronic media. The role of advertising in direct marketing, interactive TV and the Internet. The growth of international advertising. Ethical issues and regulatory restraints. Research and creative assignments combined with illustrated lectures and discussion.

Prerequisite: ADV 2400/AD 400 level courses or equivalent

ADV 3503/AD 503**Topics in Graphic Design**

3 cl hrs, 3 cr

The role of the graphic designer in contemporary visual communications with related design assignments and research. Graphic design trends; the impact of computer technology; examination of the work of major 20th century designers; global graphics; the ongoing dialogue between advertising and graphic design.

Prerequisite: ADV 2400/AD 400 level courses or equivalent

ADV 3530/AD 530**Advanced Photography Studio**

3 cl hrs, 3 cr

Exploration of advanced studio and darkroom techniques. Topics include color theory, films, color print materials and processing, tone control techniques, lighting. Creative assignments using the large camera format.

Prerequisite: ADV 2400/AD 400 level courses or equivalent

ADV 3540/AD 540**Two-Dimensional Animation**

1 cl hr, 2 lab hrs, 2 cr

Introduces students to the history, design principles and techniques of two-dimensional animation.

Students create a variety of projects including storyboards, flipbooks, camera-less films, cutouts and still-photo animation. Experiments in time-lapse, pixellation and object animation. Illustrated lectures and a field trip to an animation studio.

Prerequisite: ADV 2400/AD 400.1 or department approval required

ADV 3550/AD 550**Web Page Design and Implementation**

2 cl hrs, 2 lab hrs, 3 cr

The design and construction of effective web sites as both a graphic designer and programmer. Students learn how to analyze information and apply graphic design techniques to real-world scenarios. The goal is to develop effective web sites that are web standards compliant, accessible to those with disabilities and forward compatible. Students will gain a solid foundation in current markup languages and applications, such as XHTML, CSS and Dreamweaver. A working knowledge of software such as Photoshop is required.

Prerequisites: ADV 2400/AD 400.1, computer-related AAS degree or department approval required

ADV 3560/AD 560**Information Design for the WWW**

2 cl hrs, 2 lab hrs, 3 cr

Information Design is an essential component in developing websites. This course examines the leading concepts of user-centered design through readings, discussions and assignments. Practical concerns include evaluation of technology needed to create or maintain websites; and exploration of a step-by-step process for creating websites using flow charts, content trees, and schematics. Students will also gain understanding of issues surrounding usability on the Web, knowledge management and Web strategy.

Corequisite: ADV 3550/AD 550 or department approval required

ADV 3600/AD 600**Advertising Projects II**

3 cl hrs, 3 cr

A continued exploration of the creative advertising campaign. Application of research, design principles and creative concepts to

retail advertising, public relations, business and international advertising. Preparation of finished artwork using software such as QuarkXpress, Adobe Illustrator and Adobe Photoshop.
Prerequisite: ADV 3500/AD 500

**ADV 3601/AD 601
Graphic Design Projects II**

3 cl hrs, 3 cr
Continuation of the development of skills learned in AD 501 as they apply to information graphics and exhibition design. Preparation and presentation of finished artwork using software such as QuarkXpress, Adobe Photoshop and Adobe Illustrator.
Prerequisite: ADV 3500/AD 500

**ADV 3611/AD 611
Desktop Publication Design I**

2 cl hrs, 2 lab hrs, 3 cr
Principles and practice of publication design. Analysis, research and design of the contemporary multi-page publication. Creative assignments leading to the design and production of a newspaper and magazine. Integration of design and production in the computer laboratory using software such as QuarkXpress, Adobe Photoshop and Adobe Illustrator.
Prerequisite: ADV 3500/AD 500 or ADV 3501/AD 501

**ADV 3620/AD 620
Digital Video Design I**

2 cl hrs, 2 lab hrs, 3 cr
Through lectures, demonstrations and hands-on practice, students are exposed to the process of creating, producing and editing digital video. Topics include pre-production (creative concept, scripting, storyboards) production (shooting techniques, soundtrack, lighting) and post production (capturing, editing, sound mix and special effects). Students work with software such as Final Cut Pro, Adobe Premiere and SoundStudio.
Prerequisites: ADV 3500/AD 500, ADV 3501/AD 501 or ADV 3530/AD 530

**ADV 3630/AD 630
Digital Video Design II**

2 cl hrs, 2 lab hrs, 3 cr
Theory and practice in advanced forms of digital video. Emphasizes the integration of special effects incorporating typography, graphics and photography. Students create an advanced digital video project for output to the World Wide Web and/or DVD with software such as

Adobe AfterEffects. Students also learn new protocols required for creating and delivering video for the World Wide Web and DVD.
Prerequisite: ADV 3620/AD 620 or department approval required

**ADV 3640/AD 640
Three Dimensional Animation and Modeling**

2 cl hrs, 2 lab hrs, 3 cr
An introduction to computer 3-D modeling, rendering and animation using software such as Cinema 4D XL. Students learn the tools and techniques for building models and scenes, rendering them with various surfaces for use in screen presentations (CD ROM, websites, video and film), and creating graphics for print media. While exploring 3-D design aesthetics, the course emphasizes the practical and technical features of the software. Students gain familiarity with advanced modeling techniques and the hierarchical structure of complex models.
Prerequisite: ADV 3540/AD 540 or department approval required

**ADV 3650/AD 650
Advanced Web Design**

2 cl hrs, 2 lab hrs, 3 cr
Building on skills learned in ADV 3550/AD 550, topics include advanced CSS, Javascript and Flash integration. Students work with clients to design and construct a professional working website following contemporary web and accessibility standards. Software such as Dreamweaver and Flash are used for construction and maintenance. A working knowledge of XHTML and CSS is required.
Prerequisite: ADV 3550/AD 550 or department approval required

**ADV 4700/AD 700
The Design Team**

1 cl hr, 2 lab hrs, 2 cr
Working individually or in teams, students consult with a variety of clients on the design and production of logos, posters, advertising campaigns, brochures and other promotional materials. Students are responsible for collecting research, conducting meetings, making presentations and following client guidelines. The role of deadlines and budgets is stressed. Students are expected to be involved in all phases of production. Coordinated with GRA 4800/GA 800, The Graphic Arts Production Team.
Prerequisite: ADV 3600/AD 600 or ADV 3601/AD 601

**ADV 4711/AD 711
Desktop Publication Design II**

2 cl hrs, 2 lab hrs, 3 cr
A continuation of ADV 3611/AD 611.
Design principles and practice of publication design. Analysis, research and design of the contemporary multi-page publication. Creative assignments leading to the design and production of annual reports and direct mail catalogs. Integration of design and production in the computer laboratory using software such as QuarkXpress, Adobe Photoshop and Adobe Illustrator.
Prerequisite: ADV 3600/AD 600 or ADV 3601/AD 601, ADV 3611/AD 611

**ADV 4720/AD 720
Multimedia Design I**

2 cl hrs, 2 lab hrs, 3 cr
This course is an introduction to the principles and practice of multimedia design. It explores ways of communicating concepts or information interactively. Students are expected to become skilled in manipulating data from a variety of sources including audio, video, still images, animation, physical objects and text using appropriate interactive techniques. Creative assignments leading to the design and production of an interactive presentation either for CD-ROM, Web or kiosk using software such as Macromedia Director.
Prerequisite: ADV 3600/AD 600 or ADV 3601/AD 601

**ADV 4740/AD 740
3-D Animation and Modeling II**

2 cl hrs, 2 lab hrs, 3 cr
This is an advanced course in computer 3-D modeling, rendering and animation using software such as Cinema 4D XL. Students will learn advanced techniques for building models and scenes, animating characters, real-time content creation, programming with C.O.F.E.E.E., and rendering with complex surfaces for use in screen presentations (CD-ROM, websites, video and film), and creating graphics for print media. While exploring 3-D design aesthetics, the course will emphasize the practical and technical features of the software. Student will gain familiarity with advanced modeling techniques, complex surfaces, character animation, modeling for games and programming.
Prerequisite: ADV 3640/AD 640 or department approval required

**ADV 4750/AD 750
Advanced Web Animation**

2 cl hrs, 2 lab hrs, 3 cr
This course introduces advanced animation concepts including scripting and focuses on various techniques to enhance interactivity. The primary authoring tools are software such as Macromedia Flash, Shockwave and digital video. The capabilities of authoring environments are extended through ActionScripts. Object-oriented programming concepts such as variables, conditional statements, and loops are covered in detail. At the completion of the course each student is required to complete a complex animated web site.
Prerequisite: ADV 3650/AD 650 or department approval required

**ADV 4800/AD 800
The Portfolio**

2 cl hrs, 2 cr
Development of each student's strategy for entering the design profession. Cumulative work is critiqued by faculty and professional advisers. Students edit and refine their portfolios to meet professional standards and add materials as needed. The development of individual promotion pieces, résumé writing, job search and interviewing skills is emphasized.
Prerequisites: ADV 4700/AD 700, ADV 4720/AD 720; corequisite: ADV 4830/AD 830

**ADV 4820/AD 820
Multimedia Design II**

2 cl hrs, 2 lab hrs, 3 cr
This course is designed to provide an advanced knowledge of multimedia production using software such as Macromedia Director. The lectures are based on exploration of scripting, interactivity, template usage for Game Design and creation of advanced environments for enhanced CD-ROM and Web delivery. The goal is to study programming for the design process, and the production and presentation of advanced interactive environments.
Prerequisite: ADV 4720/AD 720

**ADV 4830/AD 830
Senior Project**

1 cl hr, minimum 6 independent study hrs, 3 cr
Students work with individual faculty to develop and complete a semester project for presentation. Assignments may include corporate identity programs, public service advertising campaigns, design and

illustration of a children's book, redesign of a magazine.
Prerequisites: ADV 4700/AD 700, ADV 4720/AD 720; corequisite: ADV 4800/AD 800

ADV 4850/AD 850 Advanced Web Strategies for Designers

2 cl hrs, 2 lab hrs, 3 cr
 This is an intensive course in design and development of dynamic Web sites. The course offers a combination of theoretical and practical information how to combine the PHP scripting language with the MySQL database to produce interactive web content. Students are expected to have experience with advanced XHTML and its extensions in CSS. The goal of the course is to give students the experience of designing dynamic web content and demonstrate tasks such as constructing a shopping cart, generating images dynamically, sending and managing email, facilitating user discussions and managing content.
Prerequisite: ADV 4750/AD 750 or department approval required

ADV 4860/AD 860 Streaming Media for the Web

2 cl hrs, 2 lab hrs, 3 cr
 This advanced course facilitates the creative use of the audio and video technologies for the Web. Students are encouraged to develop prototypes or projects for commercial, artistic, journalistic, personal or documentary purposes. The course assignments include conceptual development, production assignments, discussions and critiques. Students learn skills to tackle all stages of streaming media processes, and they acquire a discipline of thought that encourages planning both for "live" and "on-demand" streaming.
Prerequisite: ADV 4850/AD 850 or department approval required

ADV 2900/AD 900 Internship in Advertising Design AAS degree

2 cl hrs, 120 field hrs/semester, 3 cr
 Assignment to field work/study situations of approximately eight to ten hours per week at one of the following: advertising agency, graphic design studio, corporate communications design office, publishing art department, computer graphics design studio, photography or illustration studio.

Each student keeps a log/journal to be shared in group seminars. Supervision is by faculty and by the job supervisor.
Prerequisites: ADV 2300/AD 300.1, ADV 2311/AD 311.1, ADV 2313/AD 313.1, ADV 2317/AD 317

ADV 4900/AD 900.1 Internship in Advertising/Graphic Design BTech degree

2 cl hrs, 120 field hrs/semester, 3 cr
 Assignment to fieldwork/study situations of approximately eight to ten hours per week at an internship site approved by the department Internship Director: an advertising agency, graphic design firm, corporate design office, publications art department, photography or illustration studio, TV or multimedia production company. Each student keeps a log/journal to be shared in group seminars. Supervision is by faculty and by the supervisor at the internship site. Internships may be undertaken during the fall, spring or summer.
Prerequisites: ADV 4700/AD 700, ADV 4720/AD 720

GRA 1110/GA 110 Foundations in Graphic Communications

2 cl hrs, 2 lab hrs, 3 cr
 An overview of how creativity and production share responsibilities in the design and graphic arts industries. Presentation of advertising, commercial printing and publishing factors and functions: introduction to history, job descriptions and aptitudes, color, photography and imaging, vector art, desktop publishing, creative and production management, prepress concerns, postpress finishing and binding, repurposing information into various media, estimating and forecasting, related functions in telecommunications, data processing and law. Emphasis on printing processes, equipment, software and materials.
Corequisites: ENG 092R/DR 092, ENG 092W/EG 092, or CUNY certification in reading, writing and mathematics

GRA 1130/GA 130 Photography for Design and Graphic Arts

1 cl hr, 3 lab hrs, 2 cr
 Orientation and operating procedures of hand-held and studio cameras. Laboratory projects include still life and portrait subjects, lighting, special effects such as freeze action and multiple exposure,

image processing, enlarging and print finishing.
Corequisites: ENG 092R/DR 092, ENG 092W/EG 092, or CUNY certification in reading, writing and mathematics

GRA 1150/GA 150 Graphic Arts Management Office Systems

2 cl hrs, 2 lab hrs, 3 cr
 Orientation and operating procedures as practiced in the graphic arts industry by managers on a computer operating system. Proper operating system terminology and definitions for working knowledge of: desktop organization, necessary applications and equipment for production management and customer service. Basic theory and use of office computers for word processing, spreadsheet, database and presentation applications. Practice of proper start-up, file operations, and maintenance procedures.
Corequisites: ENG 092R/DR 092, ENG 092W/EG 092, or CUNY certification in reading, writing and mathematics

GRA 1209/GA 209 Impositions, Plates and Proofs

1 cl hr, 2 lab hrs, 2 cr
 A study of printing press formats, plates, and proof definitions, terminology and techniques. Emphasis is on imposition. In-depth study includes: printing and binding specifications, production guides, plate characteristics for conventional and digital printing, proofing options and characteristics. Discussion of the various printing associations; SNAP, GRACoL, SWOP, and FIRST guidelines; current industry trends; calibration measurements and evaluations using densitometers and spectrophotometers.
Prerequisites: GRA 1110/GA 110, GRA 1130/GA 130, GRA 1150/GA 150, ADV 1160/AD 160

GRA 1213/GA 213 Black and White Presswork

1 cl hr, 3 lab hrs, 2 cr
 Operational principles of single color printing press production. Emphasis on learning the basic terminology, concepts and functions of the printing press in relationship to other factors in prepress and postpress operations. Lab work focuses on the functions of roller-groups, fountain solutions, feeding, delivery, and safety controls. Students study and evaluate the characteristics and relationships among chemicals, plates, inks and stocks.
Pre- or corequisite: GRA 1110/GA 110

GRA 2300/GA 300 Color Theory and Practice

1 cl hr, 2 lab hrs, 2 cr
 Fundamentals and theoretical aspects of color as used in graphic arts. Study of nomenclature, measurements, gamuts, models, separations, controls, and production procedures in conventional and digital media. Practical production work by students includes calibrations for equipment to understand color management and device profiles. Emphasis on: SNAP, GRACoL, SWOP, and FIRST guidelines; ink on press sequences; separation screen angles; monitor variations; current industry trends such as device profiling to ICC lookup tables; calibration measurements using densitometers, spectrodensitometers, and spectrophotometers.
Prerequisites: GRA 1209/GA 209, GRA 1213/GA 213

GRA 2301/GA 301 Ink and Color Analysis

1 cl hr, 2 lab hrs, 2 cr
 The study of color inks in graphic arts production. Students practice proper ink mixing for color matches and measurements using densitometers, spectrodensitometers, spectrophotometers and other instruments specific to the investigation and understanding of ink technology. Discussions cover: manufacturing; shelf life and storage considerations; handling and appropriate press usage; ink formulations of colorant, vehicle, and additives. Color analysis includes ink and paper, including paper stock categories, specifications, usage, absorption and reflection qualities that affect color. Ink relationships to SNAP, GRACoL, SWOP, and FIRST guidelines are identified.
Prerequisites: GRA 1209/GA 209, GRA 1213/GA 213; corequisite: GRA 2300/GA 300

GRA 2303/GA 303 Desktop Publishing Production I

2 cl hrs, 2 lab hrs, 3 cr
 Continued development of the skills and concepts from courses in typography and digital imaging, giving students the opportunity to plan and execute basic techniques for page assembly. The students plan, develop and execute pages ready for a variety of media with a focus on matching specifications to SNAP, GRACoL, SWOP, and FIRST guidelines. This course focuses on creating integrity for output and

guidelines for previewing final layouts (PreFLyt). Emphasis is made on the proper use of keyboard controls. Software such as QuarkXpress, continuous tone pictures, and vector art logo files on the Macintosh operating system is used.

Prerequisites: GRA 1150/GA 150, GRA 1209/GA 209, ADV 1160/AD 160

**GRA 2313/GA 313
Color Presswork**

2 cl hrs, 2 lab hrs, 3 cr

This course continues the development of printing skills and concepts. Students plan and execute process color printing projects and rotate through complete press preparations on equipment such as a Heidelberg GTO press. Emphasis on make-ready, full color images, registration, print coverage, trapping and quality.

Prerequisite: GRA 1213/GA 213

**GRA 2316/GA 316
Digital Imaging Production**

2 cl hrs, 2 lab hrs, 3 cr

An advanced course that continues to develop the ability to capture, color correct, adjust tonal levels and curves, and retouch bitmapped images. Students learn how digital cameras and high-end scanners capture images and how to provide optimized files. Students are exposed to professional techniques for making corrections and altering pictures to match a client's instructions using software such as Adobe Photoshop on the Macintosh operating system. The course is a priority for students planning to continue for the BTech degree.

Prerequisite: ADV 1260/AD 260;
corequisite: GRA 2300/GA 300

**GRA 2317/GA 317
Graphic Arts Estimating I**

2 cl hrs, 2 lab hrs, 3 cr

A balance of basic estimating theory and practice tailored to the special needs of the graphic arts industries. The study of all phases of estimating from transactional analysis to the estimator's spreadsheet and the presentation of final estimations. This course introduces fundamental concepts of cost-based accounting and functions related to management information systems.

Prerequisites: GRA 1150/GA 150, GRA 1209/GA 209, GRA 1213/GA 213

**GRA 2406/GA 406
Production Management Systems I**

2 cl hrs, 2 lab hrs, 3 cr

An overview of print production management and the problems facing modern graphic arts decision-makers in advertising, commercial printing, the internet and intranets, hardcover and softcover publishing, on-demand and variable data printing, wide format, and portable document format production. Relationships are discussed between production and other factors such as deadlines, distribution, human resources, equipment, and materials on-hand; development of scheduling production and control procedures to maximize efficiency, manufacturing, quality controls, and profits for organizations. Case studies and problem-solving exercises simulate competitive and internal environments.

Prerequisites: GRA 2303/GA 303, GRA 2317/GA 317

**GRA 2412/GA 412
Desktop Presentations**

2 cl hrs, 2 lab hrs, 3 cr

Introduction to the principles and practice of desktop presentations. Integration of text, graphics and simple animation through the use of software such as Microsoft Powerpoint. Students complete business presentations based on graphic arts-related research.

Prerequisites: GRA 2303/GA 303, ADV 2360/AD 360

**GRA 4170/GA 417
Graphic Arts Estimating II**

2 cl hrs, 2 lab hrs, 3 cr

Advanced study of estimating and its relationship to costs, measurements and profits. Application of estimating principles to purchasing, storage, preparation and sales of graphic arts goods and services. Review of the yearly, monthly and weekly cost determination. Inventory turnover, cost centers, forecasting and control methods as well as comparison of actual and estimated costs. An emphasis is made on real-world policies, procedures and applications used in current industry cost-based accounting for management information systems. This course is a priority for students planning to continue for the BTech degree.

Prerequisite: GRA 2317/GA 317

**GRA 2419/GA 419
Quality Control Management Systems**

2 cl hrs, 2 lab hrs, 3 cr

An introduction to total quality management guidelines and concepts, including both analog and

digital operations. An emphasis is focused on quality control programs; statistical process controls; setting standards, tolerances and their random variations; SNAP, GRACoL, SWOP and FIRST guidelines; material testing; ANSI standards; light variables; copy variables; metamerism, densitometry, colorimetry and spectrophotometry, color proofing processes; role of PreFLyting; pressroom variables; evaluating color bar ink traps, dot gain and print contrast; quality management, customer service, and scheduling.

Prerequisites: GRA 2300/GA 300, GRA 2301/GA 301

**GRA 3508/GA 508
Desktop Publishing Production II**

2 cl hrs, 2 lab hrs, 3 cr

An advanced course that continues to develop page assembly for a variety of media. Students learn how to master preferences, paragraph formats, tabs, style sheets, step and repeats, box shapes, and color traps. Students are exposed to professional techniques for making corrections and altering final layouts to match a client's instructions. Software such as QuarkXpress, and files representing bitmapped digital images and vector art logos are used on the Macintosh operating system.

Prerequisite: GRA 2303/GA 303

**GRA 3513/GA 513
Digital Color Presswork**

2 cl hrs, 2 lab hrs, 3 cr

Continues the development of digital printing skills and concepts, giving students the opportunity to plan and produce full color digital printing projects. Students use a digital printer, such as the Xerox DocuColor 2060, to learn how to merge marketing data into layouts to produce variable data materials in color. An emphasis is made on safety, maintenance and calibration for digital color presswork systems.

Prerequisite: GRA 2313/GA 313

**GRA 3515/GA 515
Production Management Systems II**

1 cl hr, 2 lab hrs, 2 cr

Interaction between design and production to meet industry requirements are studied to help prepare students for advertising, printing, or publishing. Discussions and exercises covering conditions, deadlines, standards, materials, personnel, asset management, and

equipment, develop skills necessary for scheduling and preparation of job "tickets" and "bags." Also covers a survey of print production organization charts, traffic procedures in advertising, printing, and publishing and comparisons of their differences and similarities.

Prerequisites: GRA 2406/GA 406, GRA 2419/GA 419

**GRA 3516/GA 516
Binding and Finishing Operations**

1 cl hr, 2 lab hrs, 2 cr

An introduction to the operation and management of bindery services such as adhesive, coil, comb, loop stitch, notch, perfect, receipt-book, saddle stitch, sewn, spiral, and wire-o binding and padding. Also included are finishing services such as: counting; numbering; collating; spot gluing/tipping; cutting; indexing; stamping/embossing; drilling; scoring and folding; coating, laminating, die-cutting, eyeletting, imprinting, polybagging, inserting, labeling, stringing and tubing. An emphasis is placed on specifications for material preparation, deadlines and schedules, production decisions and purchasing requirements.

Prerequisite: GRA 1209/GA 209

**GRA 3532/GA 532
Print Production for Designers**

2 cl hrs, 2 lab hrs, 3 cr

This course focuses on current print production procedures. The class will examine a variety of finished print materials including books, magazines, poster, folders and packaging. Topics include print media specifications, digital prepress, page imposition, proofing, type technology, preparation of color files. Case studies, problem-solving exercises and software such as QuarkXpress, Adobe Illustrator and Photoshop are used to demonstrate production techniques.

Prerequisites: ADV 3500/AD 500 or ADV 3501/AD 501 or department approval required

**GRA 3600/GA 600
Topics in Graphic Arts Management**

2 cl hrs, 2 cr

Current topics in graphic arts industry management are studied through current periodicals and a speaker symposium. Topics may include human resources guidelines, budgeting and forecasting trends, managerial considerations facing

businesses and entrepreneurs, the on-demand print industry, and an analysis of the effects of desktop publishing in social, economic and sustainability terms. Methods for problem solving and strategies for producing organizational change are introduced.

Pre- or corequisite: GRA 3515/GA 515

**GRA 3612/GA 612
Print-On-Demand
Management**

2 cl hrs, 2 lab hrs, 3 cr

Digital publishing taught as an alternative to conventional offset printing. A study of print-on-demand (POD) terminology and techniques include: distributed POD networks and satellite operations versus reprographic centers; remote proofing; personalization and customization applications; controller software; optical-character-recognition (OCR), storage, image processing, in-line finishing, accounting, and on-line customer service capabilities. Demonstration of POD hardware, software and workflows. Consideration of format, design and finish as factors in POD output versus conventional offset printing.
Prerequisite: GRA 3515/GA 515

**GRA 3607/GA 607
Digital Data Asset
Management**

2 cl hrs, 2 lab hrs, 3 cr

Students study the characteristics of various data forms and how they can be managed by sort fields or tags to work with situations such as archiving, repurposing of information, direct mail, electronic commerce, variable data publishing, etc. A focus is on organizing and maintaining assets, configuration and updating strategies, data distribution, reports, etc. An orientation to flat-file database systems, using applications such as Microsoft Access, and migrate data to relational database systems. By the end of the course, students should be able to identify various data asset needs, match appropriate systems to the needs, develop and maintain a digital data asset database.
Prerequisites: GRA 3508/GA 508, GRA 3515/GA 515

**GRA 3611/GA 611
Vector Art Editing**

2 cl hrs, 2 lab hrs, 3 cr

An advanced course that continues to develop how to create, correct

and modify logos and logotype vector linework. Students learn how to simplify path points and specify the flatness value for printer pixels to provide optimized files. Students are exposed to professional techniques and tools for making corrections and altering art to match a client's instructions using software such as Adobe Illustration on the Macintosh operating system.
Prerequisite: ADV 2360/AD 360

**GRA 4712/GA 712
Portable Document Formats**

1 cl hr, 2 lab hrs, 2 cr

Development of final pages into a portable document format (PDF) for preview, document distribution, output for printing, and cross-platform publishing. Students learn how to simplify PostScript files, determine and set preferences, build hot links for multiple-page documents, verify a file's quality, and modify an existing PDF. Students are exposed to professional techniques to match a client's instructions. Software such as Adobe Acrobat and Encfocus Instant PDF are used on the Macintosh operating system.
Prerequisite: GRA 3508/GA 508

**GRA 4715/GA 715
Project Management and
Workflow Analysis**

1 cl hr, 2 lab hrs, 2 cr

A study of management rationale in graphic arts production using project planning management applications and PERT or GANNT charts. Problems or costly situations are determined using a strategic method such as abstract summary, measurable objectives, financial considerations, inventory of resources, observations and recommendations. Students focus on making project plans, then evaluate workflow maps using five markers: review, decision, process, transfer and action. This course changes theoretical concepts into realistic production systems, getting graphic arts jobs done in predictable, reliable and profitable processes. Focus is on cost, profit centers and sustainability in graphic arts operations.
Prerequisites: GRA 3515/GA 515, GRA 3612/GA 612

**GRA 4732/GA 732
Digital PreFlyt**

2 cl hrs, 2 lab hrs, 3 cr

A practical problem-solving approach to various situations occurring in previewing final layouts

for production. A variety of quality assurance methods are used, such as ripping to proofs for visual analysis and reading file codes or tags. Students work with realistic problem files to identify and fix errors such as missing or incorrect fonts, incorrectly defined colors, missing or incorrect color traps, scans supplied in the wrong file format and/or incorrect resolution, graphics not linked or missing, incorrect page settings and/or page set up and/or poorly defined or undefined safety/trim/bleed, inaccurate or missing proofs, inability to output, and poorly defined or undefined submission materials. Students use software and hardware to gain real-world experience.
Prerequisite: GRA 3508/GA 508

**GRA 4800/GA 800
The Graphic Arts
Production Team**

2 cl hrs, 2 lab hrs, 3 cr

An advanced course demonstrating the principles of professional teamwork and networking. Graphic arts degree candidates work with design students to produce communications materials such as posters, publication pages, brochures, book covers, etc. GA students consult with design instructors and students, abstract relevant articles from industry and trade publications, and develop professional contacts in industry associations.
Prerequisites: GRA 4715/GA 715, GRA 4732/GA 732 or department approval required

**GRA 4817/GA 817
Estimating and Cost Control
Systems Management**

3 cl hrs, 3 cr

A study of graphic arts information technologies that help provide estimating, production and accounting facts that are evaluated to make management decisions. Students develop management strategies after calculating realistic financial, personnel and environmental factors. The results of the course should help students identify sustainability strategies in graphic communications.
Prerequisites: GRA 2417/GA 417, GRA 3515/GA 515, GRA 4715/GA 715 or department approval required

**GRA 4830/GA 830
Senior Project**

2 cl hrs, 6 independent study hrs, 3 cr

Students develop and complete a

semester project. Supervision is by faculty. Assignments may include graphic arts projects in advertising, printing, or publishing. The results of the project should contribute to the student's professional experience.

Prerequisite: Department approval required

**GRA 2900/GA 900
Graphic Arts Internship
AAS degree**

2 cl hrs, 120 field hrs/semester, 3 cr

Assignment to fieldwork/study situations of approximately eight hours per week at a graphic arts-related internship site approved by the department internship director. Sites may be in areas such as advertising, printing, corporate communications or publishing. Students keep a log/journal to be shared in group seminars. Supervision by faculty and by the supervisor at the internship site.
Prerequisite: GRA 2317/GA 317 or department approval required

**GRA 4900/GA 900.1
Graphic Arts Internship
BTEch degree**

2 cl hrs, 120 field hrs/semester, 3 cr

Assignment to fieldwork/study situations of approximately eight hours per week at a graphic arts-related internship site approved by the department internship director. Sites may be in areas such as advertising, printing, or publishing. Students keep a log/journal to be shared in group seminars. Supervision by faculty and the supervisor at the internship site.
Prerequisites: GRA 4715/GA 715, GRA 4732/GA 732 or department approval required