

Digital Graphic Design and Multimedia (B.S.)

Digital Graphic Design and Multimedia (BS) The Bachelor of Science in Digital and Multimedia Graphic Design provides students with the principles, concepts and practices of the advertising and communications industry. It is based on development of visual communication professionals aimed at handling new ways of offering services, plan, design and communicate ideas and clear and effective graphic messages. enables them to make use of interactive electronic media in an increasingly complex and competitive world given the development of new digital technology and the globalization of markets.

This Program is designed to develop the competencies that will enable students to:

Goals

- Develop professionals to work in communications, specifically in digital design and multimedia.
- Develop professionals capable of working on creative and quality projects in graphic communication under a flexible and competitive curricular model according to the real needs of the national and international market.
- The program will provide the necessary tools so that the student can positively face the continuous changes in digital and multimedia graphic design.
- Develop the student's artistic abilities and abstraction capacity to solve the problems of visual communication in the company without the need to use words.
- Develop professionals who can plan, design, and communicate graphic and effective ideas and messages using interactive electronic media in the modern digital age.

Knowledge

1. Know the foundations and stages of the design process from the conception of an idea to its representation, development and implementation.
2. Know the fundamental guides that govern the esthetic order of visual communication, in addition to the formal elements and computer principles of a graphical composition.
3. Demonstrate knowledge of the methodologies and processes of the creation of images and the traditional and digital techniques of graphical expression.
4. Have universal historical, ethical, legal and marketing knowledge to be able to communicate effective messages within the framework visual.
5. Know the theories of the new means and new technologies in the artistic context.

Skills

1. Apply in a creative form the processes, skills, materials, techniques, styles of representation, and technology, as well as the historical knowledge, critiques and theoretical knowledge in the problem solving of design and visual communication.
2. Make creative and innovating proposals of design in different formats and bases, that respond properly to specific objectives with esthetic and functional criteria, satisfying the needs of the client and the exigencies of the market.
3. Form the concept, plan, design and implement projects of communication with different degrees of complexity in the different areas of graphical design application.

Attitudes

1. Demonstrate a deep critical awareness and reflection of the pieces of visual communication when considering their meaning, interpretation, diffusion and their ways of production, with criteria that will permit the interpretation of how these influence societies and the environment.
2. Demonstrate esthetic sensitivity and creative ability that reflect originality and innovation with solid ethical and humanistic values.
3. Show awareness of the ecological impact of the means of graphical production and of the conservation of the planet.

Program is authorized to be offered online.

TOTAL COST OF PROGRAM

Tuition	\$25,641
Fees	\$3,200
Books	\$4,958
Supplies	<u>\$3,245</u>
Total	\$37,044

REQUIREMENTS FOR THE BACHELOR IN DIGITAL GRAPHIC DESIGN AND MULTIMEDIA

General Education Requirements	48 credits
Core Course Requirements	72 credits
Elective Courses	<u>3 credits</u>
Total	122

General Education Requirements - 48 credits

Forty-eight (48) credits are required as explained in the section “General Education Requirements for Bachelors’ Degrees.” Students will take the course GEMA 1200 in the Basic Skills in Mathematics category.

Core Course Requirements - 72 credits

DGDM 1101	History of Graphic Design	3
DGDM 1103	Foundations of Graphic Design	3
DGDM 1104	Analysis of Graphic media	3
DGDM 1201	Digital Photography Applied to Graphic Design I	3
DGDM 1202	Digital Photography Applied to Graphic Design II	3
DGDM 2201	Digital Graphic Design I	3

DGDM 2202	Digital Graphic Design II	3
DGDM 2203	Design and Graphic and Digital Typesetting	3
DGDM 2204	Introduction to Multimedia Design	3
DGDM 2205	Semiotics and Graphic Communication	3
DGDM 2206	Writing for the Digital Format and Video Production	3
DGDM 3014	Corporate Identity Design and Visual Identity	3
DGDM 3015	Packaging Design and Displays	3
DGDM 3016	Principles of Animation	3
DGDM 3021	Design and Multimedia Production I	3
DGDM 3022	Design and Multimedia Production II	3
DGDM 4003	Ethical and Legal Principles of Graphic Communication	3
DGDM 4004	Administration and Marketing of Graphic Media	3
DGDM 4005	Professional Seminar	3
DGDM 4006	Design and Production of the Digital Professional Portfolio	3
DGDM 4007	Advertising Campaign Seminar	3
DGDM 4013	Publishing Design	3
DGDM 4014	Animation and Three-dimensional Graph (3D)	3
DGDM 4910	Practice	3

Elective Requirements - 3 credits

An elective course is (i) any course a student takes in any General Education, Major or Prescribed Distributive Course within the student's degree program, in addition to the courses that the student has taken to satisfy the minimum degree program requirements in each category and/or (ii) any course in another degree program. Provided that the student must meet course prerequisites and cannot count the same course twice.

Major and Other Course Descriptions and Resources (Digital Graphic Design and Multimedia)

DGDM 1101 - HISTORY OF GRAPHIC DESIGN

Study of the history of graphic design from the origins of humanity to the digital era. Discussion of the appearance of visual language through pictograms and ideograms, as well as the development of the first alphabets.

3 credits

GARCIA DE QUEVEDO AYALA, RENE E. Part Time Professor. B.A. in Art, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Meggs, P. B., & Purvis, A. W. (2016). *Meggs' History of Graphic Design*. (6th ed.). Wiley.

DGDM 1103 - FOUNDATIONS OF GRAPHIC DESIGN

Discussion of the fundamental guides of esthetic order in graphic composition. Analysis of the elements, principles, resources and the other general rules of the arts that govern graphic design. Development of practical skills in graphic composition by using natural resources and commercially elaborated material.

3 credits

GARCIA DE QUEVEDO AYALA, RENE E. Part Time Professor. B.A. in Art, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Lupton, E. (2014). *Graphic Design: The New Basics*. (2nd ed.). Princeton Architectural Press.

DGDM 1104 - ANALYSIS OF GRAPHIC MEDIA

Analysis of the influence of graphic media in the Puerto Rican society and in other cultures, especially through the phenomenon of globalization and multiculturalism. Discussion of language levels, communication codes and the linguistic codes of different graphic works produced socially and commercially to identify discursive practices and ideological dimensions.

3 credits

GARCIA DE QUEVEDO AYALA, RENE E. Part Time Professor. B.A. in Art, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Samara, T. (2017). *Design Elements: Understanding the Rules and Knowing When to Break Them*. Rockport Publishers.

DGDM 1201 - DIGITAL PHOTOGRAPHY APPLIED TO GRAPHIC DESIGN I

Introduction to the technical aspects of digital photography applied to graphic design. Study of the effect of natural light, the effect of artificial light and the instruments, which are essential to obtain the appropriate and quality illumination in both inside and outside scenes. Identification of the essential things that should be taken into account when taking a picture to be used in a traditional graphic medium or digital graphic medium. Practice in photographic exercises that culminate in the production of a digital photographic portfolio.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Freeman, M. (2011). *The Photographer's Eye: Composition and Design for Better Digital Photos*. Focal Press.

DGDM 1202 - DIGITAL PHOTOGRAPHY APPLIED TO GRAPHIC DESIGN II (3)

Practice in the handling of professional digital cameras, the optical photometry, digital sensors and indoor and outdoor illumination. Selection and use of filters, the objectives and other equipment and tools to be used in different scenes related to publicity, fashion and other photographic fields. Preparation of professional projects using advanced digital techniques of photographic edition with current software in the field of graphic design. Prerequisite: DGDM 1201.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Hirsch, R. (2017). *Exploring Color Photography: From Film to Pixels*. (6th ed.). Routledge.

DGDM 2201 - DIGITAL GRAPHIC DESIGN I

Development of the basic skills in the use of the graphic design software existing on the market. Study of photography and typography as essential elements of graphic communication. Preparation of vector graphics, photographic alterations and restoration of old or damaged images to be used in different graphic publication media. Prerequisite: DGDM 1103.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Lidwell, W., Holden, K., & Butler, J. (2010). *Universal Principles of Design: 125 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach Through Design*. Rockport Publishers.

DGDM 2202 - DIGITAL GRAPHIC DESIGN II

Development of the most advanced skills in the use of the graphic design software existing on the market. Development of digital language through design, composition and production of elaborated digital graphic works. Performance of digital treatment of images through edition and optimization of images for publishing design, Web design or multimedia. Prerequisite: DGDM 2201.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Wheeler, A. (2017). *Designing Brand Identity: An Essential Guide for the Whole Branding Team*. (5th ed.). Wiley.

DGDM 2203 - DESIGN AND GRAPHIC AND DIGITAL TYPESETTING

Discussion of typography as one of the main elements of graphic communication and its impact on graphic design. Review of the different typesetting families and styles, as well as other graphic symbols, such as the ornamental numbers and elements. Application of the elements of typesetting structure in graphic communication. Prerequisite: DGDM 1104, 2201.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Bringhurst, R. (2013). *The Elements of Typographic Style*. (4th ed.). Hartley & Marks.

DGDM 2204 - INTRODUCTION TO MULTIMEDIA DESIGN

Planning, design and implementation of simple projects of multimedia and Internet. Includes Web pages that take into consideration the different elements that permit their functionality, navigability and interactivity. Prerequisite: DGDM 2201.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Landa, R. (2018). *Graphic Design Solutions*. (6th ed.). Cengage Learning

DGDM 2205 - SEMIOTICS AND GRAPHIC COMMUNICATION

Discussion of the theoretical explanations of semiotics and the importance of this in graphic communication. Study of the different historical currents of semiotics and of the visual and linguistic signs in visual organizations. Analysis of the correlations of iconic semiotics, symbolic semiotics or of graphic discourse in the process of production and reproduction of social knowledge. Discussion of the fundamental methodologies of graphic discourse in the diverse cultural contexts in which they take place. Prerequisite: DGDM 2203.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Crow, D. (2022). *Visible Signs: An Introduction to Semiotics in The Visual Arts*. (4th ed.). Bloomsbury Visual Arts.

DGDM 2206 - WRITING FOR THE DIGITAL FORMAT AND VIDEO PRODUCTION

Application of the theoretical and practical foundations of the writing of librettos from a communication system that integrates both visual and sound elements. Creation of stories and characters to elaborate a libretto or storyboard that facilitates the production of multimedia videos. Prerequisite: DGDM 2203.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Crow, D. (2022). *Visible Signs: An Introduction to Semiotics in The Visual Arts*. (4th ed.). Bloomsbury Visual Arts.

Thompson, R. (2019). *Grammar of The Edit*. (4th ed.). Focal Press.

DGDM 3014 - CORPORATE IDENTITY DESIGN AND VISUAL IDENTITY

Discussion and application of the basic concepts in the identity and image of some corporation, or public or private institution. Analysis and design of the graphic and visual elements that identify the company or institution. Prerequisite: DGDM 1202, 2203.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Olins, W. (2017). *The Brand Handbook*. Thames & Hudson.

DGDM 3015 - PACKAGING DESIGN AND DISPLAYS

Esthetic and functional design of packages and displays for promotion, product marketing and graphic services. Study of the versatility of the formats, sizes, and the digital and traditional media most appropriate. Analysis of the visual elements of graphic design. Prerequisite: DGDM 1202, 2203.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Ambrose, G., & Harris, P. (2011). *Packaging The Brand: The Relationship Between Packaging Design and Brand Identity*. AVA Publishing.

DGDM 3016 - PRINCIPLES OF ANIMATION

Application of the foundations and methodologies of the molding of bi-dimensional objects. Analysis of the artistic principles, of animation expression and the performance of bi-dimensional animation practice with current software on the market for new digital graphic media. Study of the storyboarding art. Discussion of the basic principles of illumination and rendering through molding and animation of simple objects. Prerequisite: DGDM 2204.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Williams, R. (2020). *The Animator's Survival Kit*. (4th ed.). Faber & Faber.

DGDM 3021 - DESIGN AND MULTIMEDIA PRODUCTION I

Analysis of the current technologies, instruments and methodologies in the field of the design and production of multimedia. Design, development and production of interactive, digital, multimedia projects that incorporate dynamic elements to texts, graphics and images. Prerequisite: DGDM 2204, 3016.

3 credits

GARCIA DE QUEVEDO AYALA, RENE E. Part Time Professor. B.A. in Art, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Costello, V. (2023). *Multimedia Foundations: Core Concepts for Digital Design*. (3rd ed.). Focal Press.

Dabner, D., Calvert, S., & Casey, A. (2014). *Graphic Design School: A Foundation Course for Graphic Designers Working in Print, Moving Image, and Digital Media*. (6th ed.). Wiley.

DGDM 3022 - DESIGN AND MULTIMEDIA PRODUCTION II

Analysis of the current technologies, instruments and methodologies in the field of design and the production of multimedia. Design, production and edition of professional digital projects of interactive multimedia that include special effects and animation in videogames, advertising videos and film shorts, among others. Integration of the current technologies on the market. Prerequisite: DGDM 3021.

3 credits

GARCIA DE QUEVEDO AYALA, RENE E. Part Time Professor. B.A. in Art, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Costello, V. (2023). *Multimedia Foundations: Core Concepts for Digital Design*. (3rd ed.). Focal Press.

Dabner, D., Calvert, S., & Casey, A. (2014). *Graphic Design School: A Foundation Course for Graphic Designers Working in Print, Moving Image, and Digital Media*. (6th ed.). Wiley.

Manovich, L. (2002). *The Language of New Media*. MIT Press.

DGDM 4003 - ETHICAL AND LEGAL PRINCIPLES OF GRAPHIC COMMUNICATION

Analysis of the ethical and legal concepts and principles that apply to graphic communication worldwide. Review of the applicable state and federal jurisprudence.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Patterson, M. (2014). *The Ethical Guidelines Handbook for Graphic Design*. Blurb.

DGDM 4004 - ADMINISTRATION AND MARKETING OF GRAPHIC MEDIA

Analysis of real experiences in the creation of strategies for the development, establishment and consolidation of a graphic company. Emphasis on research, quality, productivity, and the logistics of the business efforts in the internal and external market. Planning and development of a real proposal for the creation of a digital graphic company within a local and global context.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Kotler, P., & Keller, K. L. (2016). *Marketing Management*. (15th ed.). Pearson.

The Graphic Artists Guild. (2021). *Graphic Artists Guild Handbook*. (16th ed.). The Graphic Artists Guild.

DGDM 4005 - PROFESSIONAL SEMINAR

Review of the professional and ethical values to achieve the integral formation the future graphic communicator. Analysis of the skills required of the future professional of graphic media to preserve an effective communication between cohorts, supervisor and clients. Discussion of possible work scenarios with ethical and labor conflicts that could occur in these contexts. This course will be taken the academic term prior to the practice.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Zemliansky, P., & St.Amant, K. (Eds.). (2013). *Rhetoric and Technical Communication: Theory And Practice*. Routledge.

DGDM 4006 - DESIGN AND PRODUCTION OF THE DIGITAL PROFESSIONAL PORTFOLIO

Preparation of a digital professional portfolio that makes use of current software in the graphic world. Demonstration of the capacities and professional competencies in the use of different formats of digital portfolios and of the current software on the market to make the portfolio. Requires 45 hours of lecture lab. Prerequisite: DGDM 4005. Corequisite: DGDM 4910.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Smith, S. (2020). *Portfolio Design for Graphics and Communication Arts*. Laurence King Publishing.

DGDM 4007 - ADVERTISING CAMPAIGN SEMINAR

Design of an advertising campaign as well as that of theoretical models that allow the development of market research and the aspects of psychoanalysis, and the semiological and interdisciplinary aspect that constitute the contemporary culture of modern publicity.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Moriarty, S., Mitchell, N., & Wells, W. (2018). *Advertising & IMC: Principles and Practice*. (11th ed.). Pearson.

DGDM 4013 - PUBLISHING DESIGN

Review of the art of model-making and the creative composition of publications, such as catalogs, magazines, newspapers and books that make use of current software on the market. Study of the trends, publishing styles and approaches for each format. Analysis and selection of traditional and digital printing methods appropriate for each medium and format. Prerequisite: DGDM 1202, 2203.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Heller, S., & Fernandes, T. (2017). *Becoming A Graphic and Digital Designer: A Guide to Careers in Design*. (5th ed.). Wiley.

DGDM 4014 - ANIMATION AND THREE-DIMENSIONAL GRAPH (3D)

Analysis of the techniques of 3D modeling and the texturizing of objects using advanced software to create complex animations. Discussion of the application of textures to the three-dimensional models, the creation and edition of materials, the channels of maps, the most complex techniques of illumination, the applications of light, the shades, the use of color and how these affect three-dimensional objects and the process of rendering of three-dimensional animations. Requires 30 hours of lecture and 30 hours of lab. Prerequisite: DGDM 3016.

3 credits

PAGAN-VAZQUEZ, DARIANA. Instructor. B.A. in Communications, Inter American University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Toffoli, D., & Richardson, J. (2014). *3D Design and Production: A Practical Guide for Design Students*. Bloomsbury Publishing.

DGDM 4910 - PRACTICE

Design and production of professional quality materials, as well as the creative solutions to inherent problems to the field of graphic communication. Requires a minimum of 180 hours of practice under the supervision of a specialist in the area and be approved with a minimum of B. Prerequisite: Have approved the major courses, except DGDM 4006 and 4007 and the authorization of the department's chair or coordinator.

3 credits

GOMEZ-BONET, KATSI M. Instructor. B.A. in Business Administration in Accounting and Marketing, University of Puerto Rico; M.A. in Graphic Design, Atlantic University College.

Bennett, A. (2014). *Design Studies: Theory and Research in Graphic Design*. Princeton Architectural Press.