

DESCRIPTION OF THE COURSE

Course Title: Preparatory processes	Code: MpP01	Semester: III
Type of teaching: Lectures (L) Laboratory work (LW)	Hours per semester: L – 30 hours LW – 30 hours	Number of credits: 6

LECTURER(S):

Assoc. Prof. Silvina Ilieva, PhD (FME), tel.: +35932 659 625, e-mail: silvina@tu-plovdiv.bg
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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Compulsory course for students of "Design and Print Communications" in the Master's degree program.

AIMS AND OBJECTIVES OF THE COURSE: The preparation of a printed publication is a complex process that requires a wide range of knowledge, both in design and prepress, as well as in printing technologies. In this aspect, the course is extremely important in the preparation of masters in "Design and Print Communications". The discipline is complex and emphasizes the interrelationship between design, prepress and printing technologies. The aim of the basic course in prepress is for future specialists in "Design and Print Communications" to gain more specific knowledge about the processes involved in the preparation of each printed publication. This knowledge is extremely important for their future realization in all spheres of the graphic industry.

DESCRIPTION OF THE COURSE: Main topics: Types of originals for compiling a printed publication; Scanners types and purpose; Raster and vector images and file formats for prepress; Types of photographic images and specifics in their processing for printing; RAW, HDR images; Vectorizing scanned images, Word processing in compiling a printed publication; Resolution of the printed publication and the relationship with the screen ruling; Specifics of preparing a printed publication with spot colors - overprint, trapping; Reproduction of colors, color calibration strips, color samples and print control; ICC profiles; Screening, types of screen, moiré, RIP.

PREREQUISITES: Basic training from the bachelor's program in "Design and Print Communications" or "Polygraphy", training in prepress and printing technologies.

TEACHING METHODS: The lectures are held with the help of a multimedia projector, by projecting images illustrating the respective issues. The exercises are held in laboratories and computer labs with specialized software installed. The aim is for students to become familiar with the specifics of the preparatory processes in printing. The form of the exercises is practical and seminar.

METHOD OF ASSESSMENT: The achievement of the set learning objective is controlled by an exam, which is entirely practical and represents the preparation of a publication for printing.

INSTRUCTION LANGUAGE: Bulgarian

BIBLIOGRAPHY: Лолър, Б. Дизайн, предпечат и печат – Официално ръководство на Adobe, София.: Софтпрес, 2006. 188 с., Михайлов, И. Наръчник по предпечатна подготовка, второ издание, София.: Книгоиздателство Асеновци, 2010. 170 с., Качин Н.Б., Спиридонов И.Т., Печатни процеси, С., ИК "Плеяда", 2000. Лекции на преподавателя по дисциплината, Списание "Полиграфия", Полянски, Н.Н. Технология на полиграфическото производство, изд. Техника, **Web sites:** www.prograficamagazine.bg, www.printguide.info, www.prepress.bg, www.bulged.wordpress.com

DESCRIPTION OF THE COURSE

Course Title: Current trends in printing processes	Code: MpP02	Semester: III
Type of teaching: Lectures (L) Laboratory work/Seminars (LW/S)	Hours per semester: L – 30 hours S – 15 hours LW – 15 hours	Number of credits: 6

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Compulsory course for students of "Design and Print Communications" in the Master's degree program.

AIMS AND OBJECTIVES OF THE COURSE: The discipline introduces students to the fundamental processes characteristic of different printing methods as technology and to apply the acquired knowledge in solving specific production problems. By the end of their studies, the student will have full theoretical training in printing technology and will be able to apply what they have learned to determine the advantages and disadvantages of individual technological methods, as well as be able to analyze technological schemes for practical solving of production tasks. The laboratory exercises expand the practical knowledge and skills in the discipline studied.

DESCRIPTION OF THE COURSE: The course covers the main topics in the theory of printing technology, the specifics of the printing process and its evolution over the years, the main physicochemical, physicommechanical and electrophysical phenomena in the process of obtaining the print. Main topics: Offset printing is carried out with high-performance 2-, 4- and 5-color printing machines. The operation of these machines is controlled by computers to achieve the most accurate results. Flexographic printing - flexible packaging is becoming increasingly preferred in all production areas. Special printing - hot and embossed printing, using different types of hot stamping foils and standard holographic foils. It is possible to produce holograms both according to the client's design and to print individually positioned holograms. Varnishing - to increase the aesthetic value of the products and the resistance of their surface layer, various types of varnish coatings can be applied - oil, water-dispersion or UV.

PREREQUISITES: Prepress processes. Knowledge of printing technologies, conventional and digital, theory of the printing process.

TEACHING METHODS: The lectures and seminars are carried in a classic format. Illustrative materials are used for laboratory exercises.

METHOD OF ASSESSMENT: Written exam.

INSTRUCTION LANGUAGE: Bulgarian.

BIBLIOGRAPHY:

Основна литература: 1. Сарджева Р., Технологии за печат, Сиела Софт енд Пъблишинг, 2009, 2. Попрядухин П.А., Технология печатных процессов, Книга, Москва, 1980, 3. Загаринская Л.А., Шахкельдян Б.Н., Полиграфические материалы, Книга, Москва, 1988, 4. Helmut Kipphan, Handbook of PrintMedia, Springer, Germany, 2001, 5. Лапатухин В. С., Способ печати, Книга, Москва 1976, 6. Колосов А.И., Андреев Ю. С. и др., Технология полиграфического производства, Книга, Москва, 1986, 7. Справочник по полиграфия, Техника, София, 1984, 8. Print-Pack magazine, Printing World, Deutsche Drucker, Expressis verbis, Expressis technics, PrintProcess, Опаковки и печат и др. периодична литература

DESCRIPTION OF THE COURSE

Course Title: Color and color reproduction	Code: МрP03	Semester: III
Type of teaching: Lectures (L) Laboratory work (LW) Course work (CW)	Часове за седмица: L – 30 hours LW – 30 hours CW	Number of credits: 6

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Compulsory course for students of „Design and Print Communications“ in the Master’s degree program.

AIMS AND OBJECTIVES OF THE COURSE: Colors are at the heart of printing technologies and in this aspect the discipline is very important for students in "Design and Print Communications". The theoretical part is entirely oriented in the relationship between design-color-prepress-print. Color reproduction is an extensive part of printing technologies, it has a very close relationship with design and prepress. The aim of the basic course in Color and color reproduction is for future specialists in "Design and Print Communications" to gain more specific knowledge about colors, which are extremely important for their future realization as engineers in printing technologies, prepress, quality control, etc.

DESCRIPTION OF THE COURSE: Main topics: Optical density of color; Color models and spaces; Color gamut; Color contrasts - unambiguous and contradictory induction; Color temperature. Significance of color temperature in color measurement; Standardized light sources in printing and prepress - D 50, D 65; Specialized color catalogs and palettes and working with them in design, prepress and printing. Process color and Spot color; Color correction and specialized color filters; Basic color management settings in Adobe graphics software. Fogra27, Fogra39 standards; ICC profiles and others.

PREREQUISITES: Basic training from the bachelor’s program in „Design and Print Communications“ or „Polygraphy“, training in prepress and printing technologies.

TEACHING METHODS: The lectures are carried with the help of a multimedia projector, by projecting images illustrating the respective issues. The exercises are held in laboratories and with computers with specialized software installed. The aim is for students to become familiar with the specifics of color and color reproduction in printing. The form of the exercises is entirely practical.

METHOD OF ASSESSMENT: CA (current assessment), which includes a test that forms 40% of the grade, 30% weight have the graphic projects made during the exercises and 30% for CW.

INSTRUCTION LANGUAGE: Bulgarian

BIBLIOGRAPHY: Райчев, Р. Цветовете в изкуството, София.: ЛИК, 2005. 170 с., Евтимова, М. Интерпретации с цвет - ЕИ, София.: Група цвет - България, 2012., Върбанов, П. Цветознание, Университетско издателство "Св. св. Кирил и Методий" Велико Търново, 1994, 124 с., Брем, Х. Магията на цветовете: Цветознание и цветопсихология, СофтПрес, 2010, 224с., Александров, Н. Фундаментална теория на цветовете. Въведение, Изток-запад, 2012, 254 с., **Web sites:** www.prograficamagazine.bg, www.printguide.info, www.prepress.bg, www.bulged.wordpress.com

DESCRIPTION OF THE COURSE

Course Title: Marketing and Management in the Printing Industry	Code: MpP04	Semester: III
Type of teaching: Lectures (L) Laboratory work/Seminars (LW/S) Course project (CP)	Hours per semester: L – 30 hours S – 15 hours LW – 15 hours CP	Number of credits: 6

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Compulsory course for students of „Design and Print Communications“ in the Master’s degree program.

AIMS AND OBJECTIVES OF THE COURSE: The discipline presents the current state and outlines the future development of marketing and advertising in the printing industry. The lectures and workshops build skills for planning, conducting and reporting campaigns on the Internet and social networks. In publishing practice, the conviction has been formed that the success of a new title depends primarily on the way in which the book is presented to readers in the press and in the electronic media. Because a very small part of the published books manage to find a place in the specialized literary columns of the print media, and this in no way can guarantee them the fate of bestsellers, publishers rely heavily on promotional marketing programs with supporting PR.

DESCRIPTION OF THE COURSE: Main Topics: Media Relations - news articles and other types of publications about products; Educational literature for products; Launching products through a celebrity "advertising face"; Support for the product - through the opinion of a celebrity; opening a commercial site and launching products in the presence of a celebrity; Exhibitions; Traveling show programs with media appearances; Maintaining a competitive dealer network; Briefings to stimulate sales; Sponsorship management; Product testing; Protective and preventive tactics: lobbying against restrictive legislation; problem management in adverse situations; parrying attacks with the help of sympathetic consumer communities or by attracting environmental groups.

PREREQUISITES: Basic skills for working with computers and the Internet, Graphic design, Computer systems, Printing processes.

TEACHING METHODS: The lectures are delivered in a classic format. Illustrative materials are used for the seminar classes.

METHOD OF ASSESSMENT: Current assessment and Course Project.

INSTRUCTION LANGUAGE: bulgarian.

BIBLIOGRAPHY:

The New Rules of Marketing and PR: How to Use Social Media, Blogs, News Releases, Online Video, and Viral Marketing to Reach Buyers Directly, David Meerman Scott, 2010; Digital Marketing for Dummies, Ben Carter, Gregory Brooks, Frank Catalano, and Bud E. Smith, 2007; Purple Cow, Seth Godin, 2003; Permission Marketing: Turning Strangers Into Friends And Friends Into Customers, Seth Godin, 1999; Interactive Advertising Bureau, iab.net; Tech Crunch, techcrunch.com; All Thing Digital, allthingsd.com; The Next Web, thenextweb.com; Advertising Age, adage.com; mashable.com

DESCRIPTION OF THE COURSE

Course Title: Hybrid and digital printing machines	Code: MpP05.1	Semester: III
Type of teaching: Lectures (L) Laboratory work (LW) Course work (CW)	Hours per semester: L – 30 hours LW – 30 hours CW	Number of credits: 6

ЛЕКТОР(И):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Compulsory course for students of „Design and Print Communications“ in the Master’s degree program.

AIMS AND OBJECTIVES OF THE COURSE: The discipline introduces master's students to the main classic and digital printing machines, their classification, features and application, as well as the papers intended for printing. The more important concepts and issues related to integrated and hybrid printing productions, modern newspaper technologies, as well as basic processes in image reproduction are presented. the different technologies for printing color reproduction, comparing their theoretical advantages and their practical application. and the ways to reproduce colors.

DESCRIPTION OF THE COURSE: Main topics: Digital printing - unlike offset printing, digital printing is preferred when small runs are needed. One of its best qualities is cleanliness. The volume of the machines is many times smaller than the most offset machines, which also makes it compact. The quality of digital printing is comparable to that of classic offset printing, which is known as the highest quality. However, its biggest advantage remains speed. Offset printing is the most widespread technology, in which high quality printing is done on paper and cardboard. Offset printing is used to produce some of the color printing products - magazines, newspapers, catalogs, books with color pages, advertising materials, advertising packaging, etc. This is the most common printing technology, giving the best image quality.

PREREQUISITES: Printing machines, Prepress processes, Printing processes.

TEACHING METHODS: The lectures are delivered in a classic format. Illustrative materials are used for the laboratory exercises.

METHOD OF ASSESSMENT: Written Exam and Course Work.

INSTRUCTION LANGUAGE: Bulgarian.

BIBLIOGRAPHY:

1. Lectures by the instructor of the discipline;
2. Списание “Полиграфия”;
3. Сарджева Р, Технология на печата, СИЕЛА, 2009 г.;

DESCRIPTION OF THE COURSE

Course Title: Computer font design	Code: MpP05.2	Semester: III
Type of teaching: Lectures (L) Laboratory work (LW) Course work (CW)	Hours per semester: L – 30 hours LW – 30 hours CW	Number of credits: 6

ЛЕКТОР(И):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Optional elective course for students of „Design and Print Communications“ in the Master’s degree program.

AIMS AND OBJECTIVES OF THE COURSE: The aim of the discipline is for future specialists in "Design and Print Communications" to gain knowledge and skills related to the creation of computer fonts, which are extremely important both in graphic design and in prepress. Students acquire skills to perform more complex tasks in the field of fonts and typography, as part of modern visual communication. At the end of the training, students will have serious knowledge in the field of fonts and typography, as part of graphic design, which will later serve for their future realization.

DESCRIPTION OF THE COURSE: Main topics: History of fonts; Types of fonts and their application; Basic concepts related to fonts and typography; Font architecture - basic and additional building blocks; Principles and problems in creating computer fonts; Software for creating computer fonts; Designing a classic font - serif and sans serif; Creating modern computer fonts; Creating a font from your own handwriting; Font encoding.

PREREQUISITES: Basic training from the bachelor's program in "Design and Print Communications" or "Polygraphy", preparation in graphic design, fonts and typography, prepress, printing technologies and working with graphic software.

TEACHING METHODS: The lectures are held with the help of a multimedia projector and rich illustrative material on the relevant topic. The exercises are held in computer labs with software installed suitable for performing the tasks. The form of the exercises is entirely practical. Lectures must precede the exercises.

METHOD OF ASSESSMENT: Exam and Course Work.

INSTRUCTION LANGUAGE: Bulgarian

BIBLIOGRAPHY: Йончев, Васил. Шрифтът през вековете. – София: Български художник, 1974. Йончев, Васил. Книгата през вековете. – София: Български художник, 1976. Йончев, Васил, Олга Йончева. Древен и съвременен български шрифт. – София: Български художник, 1982. Йончев, Васил. Азбуката от Плиска. Кирилицата и глаголицата. – София: Кирил Гогов и синове, 1997. Желев, Желю. Букви и шрифтове. – София: Техника, 1964. Илиева, С. Графичен дизайн – съвременното изкуство за визуална комуникация, учебно пособие, Издателство КСИ, Пловдив 2015,

Web sites: <https://polygrammagazine.bg>, <https://printguide.info/>, www.nha-ad.eu, <https://fontforge.org/>, <https://www.fontlab.com/>, <https://www.fontfabric.com/>, <http://www.balezdrov.com>, <https://localfonts.eu>, <http://www.hermessoft.com/>, <https://www.indiegogo.com/projects/futuracha-pro##>, <https://www.calligraphr.com>

DESCRIPTION OF THE COURSE

Course Title: Wide format advertising graphics	Code: MpP06	Semester: IV
Type of teaching: Lectures (L) Laboratory work (LW) Course work (CW)	Hours per semester: L – 30 hours LW – 30 hours CW	Number of credits: 4

LECTURER(S):

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COURSE STATUS IN THE CURRICULUM: Compulsory course for students of „Design and Print Communications“ in the Master’s degree program.

AIMS AND OBJECTIVES OF THE COURSE: The knowledge and skills acquired during the course create a prerequisite for the realization of students in activities related to the graphic design of large-format images, which has its own specific features compared to the design of conventional print advertising. Students acquire skills to perform simple tasks in the field of visual communication, in accordance with the basic artistic and aesthetic principles and features of large format advertising. At the end of the training, students will have the necessary minimum knowledge in this field, which will later serve for their future realization.

DESCRIPTION OF THE COURSE: Main topics: Introduction to the discipline of Wide format advertising graphics; Types of advertising equipment and features in the design; WFI as part of corporate identity; WFI-Opportunities for creative advertising; Large format poster (poster); Systems of signs and pictograms for orientation in the environment; Flags, banners, banners - dynamic and attractive advertising; Shop windows and awnings - an opportunity to implement WFI; Exhibitions and fairs are the main consumer of WFI for advertising; Transport advertising. Types and principles of design; Billboard, megaboard - to think broadly. Problems in designing and composing in non-standard formats; Exhibitions and other events that are characteristic of wide format advertising.

PREREQUISITES: Basic training from the bachelor's program in "Design and Print Communications" or "Polygraphy", preparation in graphic design and printing technologies.

TEACHING METHODS: The lectures are held with the help of a multimedia projector, by presenting attractive ideas and illustrations on the relevant topic. The exercises are held in computer labs with specialized software installed. The aim is for students to become familiar with the specifics of WFI design. The form of the exercises is practical and seminar.

METHOD OF ASSESSMENT: The achievement of the learning objective is controlled by an exam, with graphic projects made during the exercises, as well as CW, being a factor.

INSTRUCTION LANGUAGE: Bulgarian

BIBLIOGRAPHY: *Илиева, С.* Графичен дизайн – съвременното изкуство за визуална комуникация, учебно пособие, Издателство КСИ, Пловдив 2015, ISBN 978-954-2942-16-0, *Райън, У. и Т. Коновър.* Графичната Комуникация Днес, част първа, София.: Дуо Дизайн, 2008. 368 с., *Райън, У. и Т. Коновър.* Графичната Комуникация Днес, част първа, София.: Дуо Дизайн, 2008. 336 с., *Кафтанджиев, Х.* Визуална комуникация, София.: Отворено общество, 1996. 160 с., *Кафтанджиев, Х.* Образът на жените в рекламата или как да унищожим мъжете, София.: princeps, 1998, с.132., *Лолър, Б. Berger, W.* Advertising today, Phaidon, 2001. 512 с., *Kozak, G., Wiedemann, J.* Package design Now!, София.: Алианс-97, 2008. 414 с., **Web sites:** www.aiga.org, www.graphic-design.com, www.allgraphicdesign.com, www.academyposter.com, www.nha-ad.eu, www.socmus.com, www.posterhouse.org, www.adc.bg

DESCRIPTION OF THE COURSE

Course Title: Quality and standardization in printing	Code: MpP07	Semester: IV
Type of teaching: Lectures (L) Laboratory work/Seminars (LW/S) Course work (CW)	Hours per semester: L – 30 hours S – 30 hours LW – 0 hours CW	Number of credits: 4

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Compulsory course for students of „Design and Print Communications“ in the Master’s degree program.

AIMS AND OBJECTIVES OF THE COURSE: The course introduces master's students to the standardization of processes in prepress and printing and the methods for controlling them in modern printing. Quality and standardization in printing means that from prepress, through color proofing and exposure, to press printing, certain specifications regarding the reproduction of color values, the quality of papers and inks, and the levels of inking in the printing press must be observed to ensure consistency of visual perception between the color proof and the print. The practical meaning of standardization is expressed in huge savings in time and materials, predictability of results and a higher level of customer satisfaction

DESCRIPTION OF THE COURSE: Main topics: Quality and standardization in printing – engaging with ISO standards. The main arguments in favor of ISO (especially with regard to sheetfed and web heat-set offset), are that the standards defined in ISO 12647-2 are proven in practice, as cost-effectively achievable and, moreover, the standard has received wide international recognition - not only among specialists in the industry, but also among customers of printing products. On the other hand, the development of own standards is a complex and slow process, because it requires, among other things, the development of methods and means of control, which should be perceived by contractors as reliable and precise - otherwise they would lose their argument in possible arbitrations and litigation. Perception and practical application of standardization according to ISO!

PREREQUISITES: Basic skills for working with computers and the Internet, Computer systems, Printing processes.

TEACHING METHODS: The lectures are held in a classic format. Illustrative materials are used for the seminar classes.

METHOD OF ASSESSMENT: Written exam and Course work.

INSTRUCTION LANGUAGE: Bulgarian.

BIBLIOGRAPHY:

1. Permission Marketing: Turning Strangers In to Friends And Friends Into Customers, Seth Godin, 1999
2. Interactive Advertising Bureau, iab.net
3. Tech Crunch, techcrunch.com
4. All Thing Digital, allthingsd.com
5. Read Write Web, readwriteweb.com
6. Mashable Social Media Guide, mashable.com

DESCRIPTION OF THE COURSE

Course Title: Graphic design of packaging and labels	Code: MpP08	Semester: IV
Type of teaching: Lectures (L) Laboratory work/Seminars (LW/S) Course project (CP)	Hours per semester: L – 30 hours S – 0 hours LW – 30 hours CP	Number of credits: 4

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Compulsory discipline for students of „Design and Print Communications“ in the Master’s degree program..

AIMS AND OBJECTIVES OF THE COURSE: Product design is a complex process that requires a wide range of knowledge, both in design and prepress, as well as in materials and printing technologies. In this aspect, the course is extremely important in the preparation of masters in "Design and Print Communications". The discipline is complex and emphasizes the interrelationship between all units involved in product design. The purpose of the basic GDP course is for future specialists in "Design and Print Communications" to gain more specific knowledge about the processes involved in the preparation of each printed package. This knowledge is extremely important for their realization in all spheres of the packaging industry.

DESCRIPTION OF THE COURSE: Main topics: Packaging from antiquity to the present day; Types of printed packaging according to function and technology; Product design as part of Total design; Components of graphic design of packaging; Color in packaging; Illustration and photography in packaging design; Features in the graphic design of high and low-budget goods; Mandatory and optional details on packaging; Label design; Design of flexible and transparent packaging; Design of packaging made of paper, cardboard and corrugated cardboard; Modern trends in GDPL.

PREREQUISITES: Basic training from the bachelor's program in "Design and Print Communications" or "Polygraphy", preparation in graphic design and printing technologies.

TEACHING METHODS: The lectures are held with the help of a multimedia projector, by presenting attractive ideas and illustrations on the relevant topic. The exercises are held in laboratories and computer labs with specialized software installed. The aim is for students to become familiar with the specifics of product design in graphic design. The form of the exercises is practical.

METHOD OF ASSESSMENT: The achievement of the learning objective is controlled by continuous assessment, which is formed 50% by test and 50% from the graphic projects made during the laboratory exercises. CP is evaluated separately.

INSTRUCTION LANGUAGE: Bulgarian

BIBLIOGRAPHY: *Илиева, С.* Графичен дизайн – съвременното изкуство за визуална комуникация, учебно пособие, Издателство КСИ, Пловдив 2015, *Райън, У. и Т. Коновър.* Графичната Комуникация Днес, част първа, четвърто издание, София.: Дуо Дизайн, 2008. 368 с., 336 с., *Кафтанджиев, Х.* Визуална комуникация, София.: Отворено общество, 1996. 160 с., *Кафтанджиев, Х.* Образът на жените в рекламата или как да унищожим мъжете, София.: рпнсепс, 1998, с.132., *Михайлов, И.* Наръчник по предпечатна подготовка, второ издание, София.: Книгоиздателство Асеневи, 2010. 170 с., *Berger, W.* Advertising today, Phaidon, 2001. 512 с., *Kozak, G., Wiedemann, J.* Package design Now!, София.: Алианс-97, 2008. 414 с., **Web sites:** www.aiga.org, www.graphic-design.com, <http://www.bulged.wordpress.com>, www.meddesign.blogspot.com, www.radoevadesign.blogspot.com, www.blog.valentinpetroff.com

DESCRIPTION OF THE COURSE

Course Title: Electronic media, multimedia and advertising	Code: MpP09.1	Semester: IV
Type of teaching: Lectures (L) Laboratory work/Seminars (LW/S)	Hours per semester: L – 30 hours S – 0 hours LW – 15 hours	Number of credits: 3

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Optional elective course for students of „Design and Print Communications“ in the Master’s degree program

AIMS AND OBJECTIVES OF THE COURSE: The "Electronic Media, Multimedia and Advertising" course within the Master's degree takes the philosophy and visual issues of a wide range of graphic products to a higher quality level, characteristic of the particularly dynamic visual environment surrounding the modern information society. The implementation of the educational tasks requires the application of a complex approach, requires active thinking and a creative attitude, treating the specific composition of printed and non-printed visual media not only as content and function, but also as a graphic work with high artistic merit. The training should, on the one hand, provoke in the students the freedom and desire to experiment, and on the other hand, build their ability to carry out a comprehensive large-scale artistic idea and graphic concept for the work. Linking graphic projects to the real practice of modern visual communication and their technological implementation provides the opportunity for each author's idea to be realized in a finished and successfully functioning artistic product. The main goal is to design and implement interactive products that not only serve the content, but are also adequate to the level of contemporary visual culture, and represent artistic phenomena in themselves.

DESCRIPTION OF THE COURSE: Main topics: The lectures and seminars included in the curriculum help students to further improve their skills in working with a personal computer and specialized software; to correctly assess the available resources and be able to choose the most suitable software and method of work when solving any graphic tasks and realizing their specific creative goals in the field of printed and non-printed interactive media. Students practice as freelance artists, art directors, creative directors or art editors in the field of applied graphics, advertising and electronic media. Their professionalism and educational qualifications allow them to work fully as university and other teachers, managers in cultural institutions, experts in the field of visual arts.

PREREQUISITES: Graphic design, Computer systems, Printing processes.

TEACHING METHODS: The lectures are held in a classic format. Illustrative materials are used for the seminar classes.

METHOD OF ASSESSMENT: Current Assessment.

INSTRUCTION LANGUAGE: Bulgarian.

BIBLIOGRAPHY:

1. Фил Грос и Майк Грос, MacromediaDirector 8.5. Изд. СофияПрес. С., 2000;
2. Й. Детеv, Пътеводител на виртуалния стопаджкия, глава Авторски мултимедийни системи, изд. БОМИ, 2008;

DESCRIPTION OF THE COURSE

Course Title: Ecological aspects of printing	Code: MpP09.2	Semester: IV
Type of teaching: Lectures (L) Laboratory work/Seminars (LW/S)	Hours per semester: L – 30 hours S – 0 hours LW – 15 hours	Number of credits: 3

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Optional elective course for students of „Design and Print Communications“ in the Master’s degree program

AIMS AND OBJECTIVES OF THE COURSE: To provide basic knowledge of environmental science and one of its main branches - industrial ecology. To gain knowledge of technologies and methods for the treatment of industrially polluted gases, industrial wastewater and solid waste from industry. To study the modern technical means used in engineering practice to protect the environment. To develop a way of thinking that allows solving complex environmental problems related to the harmful industrial emissions released into the biosphere from the printing industry.

DESCRIPTION OF THE COURSE: Students are introduced to environmental science and one of its main branches - industrial ecology; the elements of the biosphere and the interrelationships between them; natural emissions in the environment and its anthropogenic pollution. Theoretical and technological knowledge is given about the methods and apparatuses used in the separation of gas mixtures and the purification of industrially polluted gases from aerosols. Different designs of dust collectors are considered; filters; hydraulic settlers; sorption apparatus and catalytic purification devices. A significant part of the course is aimed at technologies and facilities for the treatment of industrial wastewater. The processes of mechanical, physicochemical, chemical and biochemical water purification are covered, and in addition to the various mechanisms of the purification process, schemes and facilities for removing pollutants are studied - grids, screens, filters and settlers; coagulators and flotators; sorption and mass transfer devices; installations for membrane technologies and ion exchange; reactors for chemical neutralization of pollutants; facilities for aerobic and anaerobic treatment. Technological knowledge is presented for the treatment of solid industrial waste before its disposal, as well as the possibilities for its utilization. At the end of the course, information is given about the active methods for environmental protection, environmental monitoring and environmental legislation.

PREREQUISITES: Knowledge of the disciplines: Engineering graphics; Physics; Chemistry I; Chemistry II; Materials for printing I and Materials for printing II, studied in the bachelor's degree in the specialty.

TEACHING METHODS: Lectures and seminar exercises. Exam and course work.

METHOD OF ASSESSMENT: Current Assessment.

INSTRUCTION LANGUAGE: Bulgarian.

BIBLIOGRAPHY:

Основна литература: *Въведение в инженерната екология*, Антон Демирев, УИ „Св. Климент Охридски“, София, 2014; *Инженерна екология*, Димитър Киров, Техника ООД, София, 2011; *Екологична химия и опазване на околната среда*, Снежана Магаева, Стефан Караиванов, Булвест 2000, София, 2002

Допълнителна литература:

Технологии за пречистване на флуиди (отпадъчни води и газове), Димитър Табаков, УИ “П. Хилендарски”, Пловдив, 2004; *Технология на водата част II*, Иван Добревски, В. Мавров, В. Ненов, Веселин Ганев, Техника, София, 1987; *Ръководство за упражнения по технология на водата*, И. Добревски и колектив, Университетско издателство Бургас, 1984; *Ръководство за предварително третиране преди депониране на отпадъци в България*, Министерство на околната среда и водите, София, 2005; *Инженерные методы защиты окружающей среды*, Комарова Л. Ф., Кормина Л. А., „Алтай”, Барнаул, 2000; *Handbook of Chemical and Environmental Engineering Calculations*, Joseph P. Reynolds, John S. Jeris, Louis Theodore, John Wiley & Sons Inc., New York, 2002.

DESCRIPTION OF THE COURSE

Course Title: Construction and computer design of packaging	Code: FaMpP01	Semester: IV
Type of teaching: Lectures (L) Laboratory work/Seminars (LW/S)	Hours per semester: L – 30 hours S – 0 hours LW – 15 hours	Number of credits: 3

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Facultative course for students of „Design and Print Communications“ in the Master’s degree program

AIMS AND OBJECTIVES OF THE COURSE: The discipline introduces master's degree students to the technologies used for the design, computer design and production of printed packaging. Issues related to technologies, materials, equipment and outfit are comprehensively considered. The discipline has a specialized character, connected primarily with technologies and printing equipment in the production of packaging, technologies and post-printing equipment in the production of packaging, design and strength calculations, technological calculations, strength tests of materials and tests of finished packaging. It is mainly focused on the technologies, the relevant equipment and outfit for the production of packaging from cardboard, corrugated cardboard and paper.

DESCRIPTION OF THE COURSE: Main topics: Printing technologies in the production of packaging. Technologies and post-printing equipment in the production of packaging. Design production of corrugated cardboard packaging. Technologies and post-printing equipment in the production of cardboard and corrugated cardboard packaging. Basic technological equipment in the production of corrugated cardboard packaging. Equipment for the production of cardboard and corrugated cardboard packaging. Quality control of cardboard and corrugated cardboard packaging. Testing of materials and finished packaging made of cardboard and corrugated cardboard. Printing technologies in the production of packaging. Technologies and post-printing equipment in the production of packaging. Design production of corrugated cardboard packaging. Testing of materials and finished packaging made of cardboard and corrugated cardboard. Strength calculations of packaging. Simulate loading of the package. Technological calculations for cardboard and corrugated cardboard packaging. The training in the master's program "Construction and computer design of packaging" confirms the theoretical knowledge and practical experience acquired by the students in the bachelor's degree in acquiring practical sense, knowledge and skills in the use of technologies for the production of printed packaging from cardboard, corrugated cardboard, paper and other materials. The emphasis is on the link between theoretical knowledge and real production. Attention is paid to design and strength calculations, technological calculations, strength tests of materials and finished packaging. The master's program is also the phase of creative freedom. It also implies a rejection of the rules. It supports every experiment - the different, the non-standard, the discovery of new rules - an open, developing model of the practically endless possibilities in design. Masters are already developing the practical experience and theoretical knowledge from their bachelor's degree studies through their creative individuality and creative possibilities.

PREREQUISITES: Materials for printing, Mechanics, Printing machines, Printing technologies, Packaging equipment, Finishing processes in printing (all from the bachelor's degree).

TEACHING METHODS: The lectures are held in a classic format. Illustrative materials are used for the laboratory exercises.

METHOD OF ASSESSMENT: Current Assessment.

INSTRUCTION LANGUAGE: Bulgarian.

BIBLIOGRAPHY:

Основна литература

1. Ефремов Н.Ф. Тара и ее производство Ч1. М. МГУП, 2009. ISBN 978-5-8122-1010-6.
2. Митрофанов В.П., В.И. Бобров. Технологическое оборудование и оснастка упаковочного производства. М. МГУП, 2003. ISBN 5-8122-0364-4.
3. Ефремов Н.Ф., И.К. Корнилов, Ю.М. Лебедев. Надежность и испытание упаковки. М. МГУП, 2004. ISBN 5-8122-0364-4.
5. Ефремов Н.Ф. Тара и ее производство. МГУП, 2001. ISBN 5-8122-0274-5.
6. Букин, А.А. С.Н. Хабаров, П.С. Беляев, В.Г. Однолько. Тара и ее производство Ч. 1. Изд-во Тамб. гос. техн. ун-та, 2006. 150 экз. – ISBN 5-8265-0484-6.
7. Букин, А.А. С.Н. Хабаров, П.С. Беляев, В.Г. Однолько. Тара и ее производство Ч. 2. Изд-во Тамб. гос. техн. ун-та, 2008. 80 экз. – ISBN 978-5-8265-0770-4.
8. Боронцов А.А. Тара и её производство - учебно - методическое пособие. Издательство ВСГТУ Улан-Удэ, 2006.
9. В. А. Данилевский, Картонная и бумажная тара, Москва: Лесная промышленность, 1979, р. 216.
10. Хведчин Ю.И. Послепечатное оборудование. Часть II. Переплетное и отделочное оборудование.
11. Mark J. Kirwan. Paper and Paperboard Packaging Technology.
12. М. Дж. Кирван. Упаковка на основе бумаги и картона. Пер. с англ. В. Е. Ашкинази Санкт-Петербург 2008.
13. Ефремов Н.Ф., А. И. Васильев, Г. К. Хмелевский. Проектирование упаковочных производств. Упаковка из гофрокартона Ч1. М. МГУП 2004.

DESCRIPTION OF THE COURSE

Course Title: Information and control systems in the printing industry	Code: FaMpP02	Semester: IV
Type of teaching: Lectures (L) Laboratory work/Seminars (LW/S)	Hours per semester: L – 30 hours S – 0 hours LW – 15 hours	Number of credits: 3

LECTURER(S):

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Technical University of Sofia, Plovdiv Branch

COURSE STATUS IN THE CURRICULUM: Facultative course for students of „Design and Print Communications“ in the Master’s degree program

AIMS AND OBJECTIVES OF THE COURSE: To introduce knowledge of information systems and basic knowledge of the organization of ERP systems in the printing and packaging industry. Students acquire basic skills for working with the most common ERP system SAP. The discipline is the first step and a prerequisite for additional training and acquiring specific skills for working with SAP (Systems, Applications & Products in Data Processing”).

DESCRIPTION OF THE COURSE: The main topics include: Information systems, definition, classification. Models of information systems. Production information systems - CRM, ERP, MES systems. Overview and description of ERP systems, their place in the automation systems of the printing industry. Description of SAP as the number one ERP system worldwide. Consideration of the main modules of the system, their relationship and importance. Detailed overview of the most important modules. Practical skills for working with the system based on exercises in demonstration and test systems.

PREREQUISITES: Knowledge of Computer Science and Control Systems.

TEACHING METHODS: Lectures, presentations, demonstrations, laboratory exercises, group work and protocols.

METHOD OF ASSESSMENT: Continuous assessment, formed by a written test at the end of the semester - 75% and protocols from laboratory exercises - 25%.

INSTRUCTION LANGUAGE: Bulgarian.

BIBLIOGRAPHY:

1. Христо Туджаров, Информационни системи, 2007
2. SAP University Alliances, Global Bike (GBI) curricula.
3. SAP University Alliances, Introduction to Industry 4.0.
4. Open Online Courses: <https://open.sap.com/>
5. Lectures and materials: <http://dox.bg/files/dw?a=61f7458a19>