

Part one: Programme Specification

Course record information

Name and level of final award:	BSc (Hons) Clinical Photography
Name and level of intermediate awards:	BSc Clinical Photography Diploma of HE Clinical Photography Certificate of HE Clinical Photography
Awarding body/institution:	University of Westminster
Status of awarding body/institution:	Recognised Body
Location of delivery:	Harrow Campus, Northwick Park, Harrow, HA1 3TP NCS Campus, 115 New Cavendish Street, London W1M 6UW
Language of delivery and assessment:	English
Course/programme leader:	Dr Efthimia Bilissi
Course URL:	http://www.westminster.ac.uk/courses/subjects/photography/undergraduate-courses/full-time/u09fucph-bsc-honours-clinical-photography
Mode and length of study:	Full-time, three years
University of Westminster course code:	W50
JACS code:	
UCAS code:	WB69
QAA subject benchmarking group:	Communication, media, film, health care visiting, physics
Professional body accreditation:	Institute of Medical Illustrators (IMI)
Date of course validation/review:	May 2008
Date of programme specification:	January 2012

Admissions requirements

The normal minimum qualifications entitling an applicant to be considered for admission to the course are as outlined in the University of Westminster's Undergraduate Prospectus.

- (i) Five General Certificate of Secondary Education (GCSE) passes, which should include minimum grade C in English Language and minimum grade B in Maths OR Science.
- (ii) Three Cs in GCE Advanced Level. These should normally include at least one A level in Biology and one preferably in Photography.
- (iii) Other equivalent qualifications.
- (iv) Competence in written and spoken English language for those whose first language is not English is required to at least IELTS 6.0, TOEFL 550 (paper based examinations) or TOEFL 213 (computer based test) and Edexcel London Tests of English level 4.

Applicants who do not possess an A level in Biology (or equivalent) but have an A level in Photography and minimum grade B in both maths and science GCSE will be considered for application on a preparatory summer short course in Biology. Satisfactory completion of the short course will allow admission on the BSc in Clinical Photography.

The student intake may include those returning to education after, sometimes, an interval of many years or those seeking retraining / qualification in this particular field. Admission for these students is based not only on qualifications, but also on their life experiences and motivation assessed at interview. Experience suggests that well motivated students have achieved considerable success, even from relatively unorthodox academic bases. Application of APLS will be carried out according to the University regulations.

Aims of the course

This programme is distinctive because it aims to develop expertise in photography and digital imaging, combined with knowledge and understanding of human physiological systems and foster communication skills necessary for employment in clinical settings.

The programme aims:

1. To provide a useful and enjoyable educational experience through high quality teaching invigorated by work-based learning.
2. To provide in-depth knowledge and understanding of contemporary imaging systems, their performance and of imaging techniques using such systems.
3. To enable the development of practical skills for the production, manipulation, storage and archiving and viewing of images.
4. To cultivate the ability to produce competent work in operational aspects of photographic and digital imaging and professional practices in clinical environments.

5. To provide knowledge and understanding of human physiological systems in health and disease.
6. To enable the development of patient communications skills and attitude-awareness that can be integrated into work in therapeutic professional settings.
7. To provide knowledge and understanding of current issues in clinical photography.
8. To develop transferable skills such as communication skills associated with oral and written presentations of technical work and organisational skills associated with project planning, execution and appraisal.
9. To instil the development of further intellectual and transferable skills that will prepare students for employment or for further study.

Employment and further study opportunities

Today's organisations need graduates with both good degrees and skills relevant to the workplace, ie employability skills. The University of Westminster is committed to developing employable graduates by ensuring that:

- Career development skills are embedded in all courses
- Opportunities for part-time work, placements and work-related learning activities are widely available to students
- Staff continue to widen and strengthen the University's links with employers in all sectors, involving them in curriculum design and encouraging their participation in other aspects of the University's career education and guidance provision
- Staff are provided with up-to-date data on labour market trends and employers' requirements, which will inform the service delivered to students.

Graduates of this course can work as clinical photographers in NHS hospitals. Employment may also be found in the private medical sector, university medical departments or research institutes, as freelance or contracted clinical photographers or in other fields of scientific, forensic and medical imaging.

The IMI (Institute of Medical Illustrators) has been closely involved in designing and setting up the course with the University of Westminster. The course will therefore be IMI accredited.

It is intended that in the future the course may become CAMIP (Committee for the Accreditation of Medical Illustration Practitioners) registered and will lead to students gaining inclusion on the State Register of Health Professionals.

Learning outcomes

Learning outcomes are statements on what successful students have achieved as the result of learning. These threshold statements of achievement are linked to the knowledge, understanding and skills that a student will have gained on successfully completing a course.

Knowledge and understanding

During the course the student is expected to develop knowledge and understanding of:

Level 4:

1. The underlying science relevant to digital imaging.
2. The nature and properties of photographic and digital images and imaging systems.
3. Principles and practices of a number of basic techniques in scientific imaging.
4. Basic numerical methods and computing.
5. The functioning of a range of physiological systems in health and disease.
6. History of medical illustration and the development of photographic processes related to it.
7. Basic principles supporting patient communication.
8. The context of being employed as a clinical photographer / medical illustrator.
9. Importance and use of reflective practice.

Level 5:

1. Principles of image management, advanced colour management, image enhancement, manipulation, storage and archiving.
2. Principles of a range of techniques used in scientific and biomedical imaging.
3. Methods and standards related to the creation and production of digital video.
4. Ethical and copyright considerations in imaging, legal, financial and administrative requirements relating to employment and imaging practice.
5. Attributes and ethical considerations required for effective communication with patients and colleagues.
6. Advanced physiology of a range of body systems.
7. Anatomy of surface landmarks and physiology of disease.

Level 6:

1. Working practices in various areas of clinical photography such as dental photography, dermatology, paediatric photography, surgical photography and ophthalmic photography.
2. Research methodologies.
3. Planning and production of research proposals.
4. Current issues in clinical photography such as ethical issues and control and use of medical images.
5. Functions, procedures and responsibilities of imaging departments in clinics and hospitals

Specific skills

Level 4:

Cognitive and Intellectual Skills

- Conceive and describe the formation of images in compound optical systems.
- Conceive and describe basic functions of the human visual system.
- Conceive and describe basic principles of colour theory.

- Relate aspects of image quality to measurable properties and measure simple aspects of objective image quality.
- Relate the historical development of photographic processes to their application in medical illustration.
- Conceive the relationships between structures and functioning of a range of physiological systems.
- Conceive basic principles and ethical considerations relating to patient communication.

Practical Skills

- Employ the basic methods of geometrical constructs and ray tracing in studying image formation in optical systems.
- Measure and interpret the input-output relationships for a variety of imaging processes.
- Acquire and process images using a wide variety of contemporary imaging systems.
- Correctly expose and process a variety of different image formats.
- Develop and print in black and white.
- Demonstrate effective use and control of flash lighting.
- Manipulate and enhance digital images.
- Calibrate image displays.
- Solve basic mathematical and statistical problems.
- Use computers, spreadsheets and software for the production of presentations.
- Demonstrate a good level of anatomy and familiarity with anatomical language used in medical facilities.
- Demonstrate patient-communication skills.
- Make use of the photographic and laboratory facilities with a clear and measured understanding of health and safety procedures.

Level 5:

Cognitive and Intellectual Skills

- Identify the scientific basis for imaging methods relating to scientific photography and biomedical imaging.
- Develop appropriate technical knowledge in the use of photographic equipment and accessories for clinical photography and the specialised techniques employed in that discipline.
- Describe the processes involved in imaging system management, including colour management and archiving of images.
- Identify ethical and copyright considerations in relation to medical images.
- Identify legal, administrative and financial requirements relating to intellectual property in imaging practices.
- Describe the function of various physiological systems in health and in disease.
- Recognise attitudes toward client-centred working in a clinical or commercial setting.
- Develop research skills necessary in planning a project.

Practical Skills

- Employ specific imaging techniques used in scientific and biomedical imaging.
- Use specialised photographic equipment and accessories to produce clinical photographs from a range of specialisms in studio and work-based settings.
- Optimise the acquisition, enhancement, storage and output of photographic and digital imagery.
- Demonstrate skills in the use of colour materials and the production of colour prints.
- Demonstrate skills in the use of video, including editing procedures and integration into multimedia applications.
- Select and critically evaluate images.
- Use of computers for desktop publishing.
- Identify various physiological systems in health and in disease.
- Demonstrate communications skills and attitude awareness that can be integrated in a range of therapeutic professional settings.

Level 6:

Cognitive and Intellectual Skills

- Critically evaluate developments in imaging systems as a basis for academic research or industrial development.
- Critically reflect on experience in a range of practice areas in relation to imaging techniques in clinical environments.
- Critically reflect on patient management, image management and business practice.
- Identify and evaluate current issues in clinical photography including ethical issues and the control and use of medical imagery.
- Consider and evaluate work in a reflective manner with reference to academic and/or professional issues, debates and conventions.
- Generate ideas, concepts, proposals, solutions or arguments independently and/or collaboratively in response to set briefs and/or as self-initiated activity.
- Demonstrate knowledge of imaging practices in areas relating to work-placements.
- Develop an understanding around areas of professional practice, issues of business practice and legal considerations in clinical photography.

Practical Skills

- Select and use safely a range of specialist instrumentation.
- Be proficient in the use of software for graphics production.
- Produce a substantial body of photography-based practical work, from a range of clinical photography specialisms to a professional level.
- Ability to produce written documentation relating to clinical photographic practice in working environments such as clinics and hospitals.
- Ability for self-directed study and for reporting results from it in written form and presentations.
- Demonstrate excellent communications skills and attitude awareness that can be integrated in a range of therapeutic professional settings.

Learning, teaching and assessment methods

The course employs a wide range of teaching and learning strategies, modes of delivery and assessment methods appropriate to the aims and intended outcomes of each module and the course as a whole. The majority of the modules are delivered in the classroom/laboratory or classroom/computer-room sessions, which are effectively used throughout scientific/applied education. They are taught using a combination of lectures, small group-based or one-to-one tutorials, practical work and self directed study using web-based and intranet resources. All modules involve a large amount of self-directed study. Web resources are designed to promote student-centred active learning and enhance material covered during taught sessions. All modules are supported by Blackboard, an online learning resource. Individual and group tutorials enable a more focused teaching/learning experience. Practical imaging modules use studios, applied imaging laboratories, digital and conventional darkrooms. Practice of modules related to physiological systems takes place in biomedical laboratory facilities.

The 500 hours of work-based learning is also a very important element in the course. It is embedded in modules throughout the three years. Work placements are carried out in various forms such as: simulated work placement taking place in dedicated photographic studios and in the University's 'PolyClinic' and actual placement in selected hospitals and clinics, which have quality controlled imaging departments in various medical areas. Modules with a work placement component are led by a member of the academic staff team, who co-ordinates the process. Both theory and practice may be taught on placement by the relevant workplace tutor. Assessment of these modules involves some practical assessment at the workplace, which will feed into the academic assessment by the staff team at the University.

Assessment methods of individual modules are based on:

- laboratory work and scientific reports
- written coursework and numerical problems
- dissertations
- portfolios of images
- written examinations
- group or individual oral presentations

Assessment methods of work-placement:

- demonstration of knowledge and practical skills (at work placement)
- written reports, from both student and tutors

Assessment of the major project is based on:

- preliminary project proposal
- literature survey
- final project report, workbook and practical work.

NOTE: For a student to pass the modules that incorporate a work placement component, they must at least achieve a pass for this component.

The involvement of the peer group is valued as a dynamic contribution to the learning experience and use of the wide range of resources each student brings to the course. In individual tutorials the focus is on the student's experience of the course.

The major project can be in any area of interest related to clinical photography, biomedical imaging and imaging systems and techniques and is expected to have a high technical content. The project is predominantly self-defined and self-directed. It will consist of a large body of practical work, a project journal or log book and a written report (10,000 to 20,000 words). Projects based on 'portfolio' of visual material require both visual and technical excellence. Each student is assigned a personal project supervisor who is available for consultation on a regular basis and will agree the project topic with the student and monitor his/her progress.

Course structure

This section shows the core and option modules available as part of the course and their credit value. Full-time Undergraduate students study 120 credits per year.

Credit Level 4				
Module code	Module title	Status	UK credit	ECTS
MDPI400	Photography Theory and Practice	Core	30	15
2DPI414	Digital Image Management	Core	30	15
MCPH401	Skills and CP Contextual Studies	Core	30	15
FSL403	Human Anatomy & Physiology	Core	30	15
Award of Certificate of Higher Education available				
Credit Level 5				
Module code	Module title	Status	UK credit	ECTS
MCPH500	Clinical Theory and Practice	Core	30	15
MCPH501	Imaging Practice & Production	Core	30	15
MCPH503	Scientific Imaging	Core	15	7.5
MDPI501	Imaging Technologies	Core	15	7.5
3CMT500	Patient Centred Communication	Core	15	7.5
MCPH505	CP Career Management & Professional Practice	Core	15	7.5
Award of Diploma of Higher Education available				
Credit Level 6				
Module code	Module title	Status	UK credit	ECTS

2CPH601	Work Placement	Core	45	22.5
MCPH600	CP Major Project	Core	45	22.5
2CPH602	Current Debates in Clinical Photography	Core	15	7.5
MDPI600	Project Planning & Research Methods	Core	15	7.5
Award of BSc available				
Award of BSc Honours available.				

Approximately **500 hours of work placement** incorporated in the course as: a) simulated placement in dedicated photographic studios (Harrow Campus), b) simulated placement in Polyclinic (Cavendish Campus), c) placement in clinical environments. Work placement is part of the following modules:

L4 – Contextual studies (1 week simulated in photographic studios and 1 week in clinical environments)

L5 – Clinical Theory and Practice (1.5 weeks simulated in photographic studios and in PolyClinic)

L5 – Career Management Skills and Professional Practice (2 weeks in clinical environments)

L6 – Work Placement Module (1 week simulated in photographic studios, 6 weeks in clinical environments)

Academic regulations

The BSc Honours Clinical Photography and its intermediate awards operate in accordance with the University's Academic Regulations and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland published by the Quality Assurance Agency for Higher Education (QAA) in 2008.

All students should make sure that they access a copy of the current edition of the general University handbook called Essential Westminster, which is available at westminster.ac.uk/essential-westminster. The following regulations should be read in conjunction with Section 17: Modular Framework for Undergraduate Courses and relevant sections of the current Handbook of Academic Regulations, which is available at westminster.ac.uk/academic-regulations

Award

To qualify for the award of BSc (Honours) Clinical Photography, a student must have:

- obtained at least 360 credits including:
 - passed 75 credits at credit Level 4 or higher and achieved at least a condoned credit in each of the remaining modules worth 45 credits at Level 4; and
 - passed a minimum of 120 Credits at credit Level 5 or higher; and
 - passed a minimum of 120 credits at credit Level 6 or higher.
- attempted modules with a maximum value of 330 credits at credit Levels 5 and 6; and

- satisfied the requirements contained within any course specific regulations for the relevant course scheme.

The class of the Honours degree awarded is decided by two criteria, the average of the best 105 credits passed at credit Level 6 being in the range of the class to be awarded, and the average of the next best 105 credits passed at credit Levels 5 and 6 provided the next best 105 credits passed are no more than one classification below this.

Support for students

Upon arrival, an induction programme will introduce students to the staff responsible for the course, the campus on which they will be studying, the Library and IT facilities and to the Faculty Registry. Students will be provided with the Course Handbook, which provides detailed information about the course. Students are allocated a personal tutor who can provide advice and guidance on academic matters.

Learning support includes four libraries, each holding a collection of resources related to the subjects taught at their Faculty. Students can search the entire library collection online through the Library Search service to find and reserve printed books, and access electronic resources (databases, e-journals, e-books).

Students can choose to study in the libraries, which have areas for silent and group study, desktop computers, laptops for loan, photocopying and printing services. They can also choose from several computer rooms at each campus where desktop computers are available with the general and specialist software that supports the courses taught at their Faculty. Students can also securely connect their own laptops and mobile devices to the University wireless network.

The University uses a Virtual Learning Environment called Blackboard where students access their course materials, and can communicate and collaborate with staff and other students.

[Student Affairs](#) provide advice and guidance on accommodation, financial and legal matters, personal counselling, health and disability issues, careers and the chaplaincy providing multi-faith guidance. The Student Affairs Hub is located at 101 New Cavendish Street, Cavendish House (1st Floor), with an additional office located at the Harrow Campus.

<http://www.westminster.ac.uk/study/new-students/when-you-arrive>

The [University of Westminster Students' Union](#) also provides a range of facilities to support all students during their time at the University. <http://www.uwsu.com/>

Reference points for the course

Internally

- University Quality Assurance Handbook
- Academic regulations Handbook Modular Framework
- MAD Faculty Teaching and Learning policy statement
- MAD Assessment Strategy

- HE and Career Management Skills policies
- Educational Initiatives Centre and Careers and Student Employment
- Research by the Imaging Technology Research Group and other related research groups

Externally

- QAA Subject Benchmark statements
- University and SEEC (credit consortium) level descriptors
- National Occupational Standards (NOS) statements
- Institute of Medical Illustrators

Professional body accreditation

1. Institute of Medical Illustrators

The syllabus included in the BSc (Hons) in Clinical Photography has been designed in conjunction with the Institute of Medical Illustrators (IMI), a member of the Federation for Healthcare Sciences. IMI was founded in 1968 to bring together the several disciplines of clinical photography /medical illustration and for over 30 years it has set and maintained standards for the profession. IMI provides a rich network of fellow professionals, working together to improve and develop medical illustration by means of conferences, courses and regional meetings.

IMI provides to successful graduates of the BSc (Hons) in Clinical Photography a Membership with the umbrella of a Code of Conduct, a Code of Responsible Practice and a Continuing Professional Development scheme, which guarantee employers well qualified and up-to-date staff. IMI has negotiated full registered status with the National Register of Medical Illustration Practitioners for all its qualified Members who, since 1st January 2001, are entitled to use the letters RMIP after their names.

Note that, students with intermediate awards are not eligible for the IMI accreditation

More information about the IMI at www.imi.org.uk

2. The Royal Photographic Society (RPS)

The Royal Photographic Society (RPS) offers professional Imaging Science Qualifications at various levels. A graduate of the BSc (Hons) in Clinical Photography, who is a member of the RPS or who has applied for membership, with one year's appropriate experience after graduation may be awarded the professional qualification of Graduate Imaging Scientist, Associate of the Royal Photographic Society. A distinction of the RPS, Licentiate or Associateship may be gained immediately on graduation.

More information about the RPS at www.rps.org

Further, the British Institute of Professional Photographers (BIPP) may also award Licentiate to graduates of the course.

More information about the BIPP at www.bipp.com

Quality management and enhancement

Course management

The course is managed by the course leader, Dr. Efthimia Bilissi, who is supported by the academic staff in the Imaging Science group, the head of the department of Photography and Film, Andy Golding and the Dean of the Faculty of Media, Arts and Design, Professor Kerstin Mey.

Course approval, monitoring and review

The course was initially approved by a University Validation Panel in 2008 and was reviewed in 2012. The panel included internal peers from the University and external subject specialists from academia and industry to ensure the comparability of the course to those offered in other universities and the relevance to employers. Periodic course review helps to ensure that the curriculum is up-to-date and that the skills gained on the course continue to be relevant to employers.

The course is monitored each year by the Faculty to ensure it is running effectively and that issues which might affect the student experience have been appropriately addressed. Staff will consider evidence about the course, including the outcomes from each Course Committee, evidence of student progression and achievement and the reports from external examiners, to evaluate the effectiveness of the course. The Annual Monitoring Sub-Committee considers the Faculty action plans resulting from this process and the outcomes are reported to the Academic Council, which has overall responsibility for the maintenance of quality and standards in the University.

Student involvement in Quality Assurance and Enhancement

Student feedback is important to the University and student views are taken seriously. Student feedback is gathered in a variety of ways. The most formal mechanism for feedback on the course is the Course Committee. Student representatives will be elected to sit on the Committee to represent the views of their peer group in various discussions. The University and the Students' Union work together to provide a full induction to the role of the course committee.

All students are invited to complete a Module Feedback Questionnaire before the end of each module. The feedback from this will inform the module leader on the effectiveness of the module and highlight areas that could be enhanced. The University also has an annual Student Experience Survey, which elicits feedback from students about their course and University experience.

Students meet with review panels when the periodic review of the course is conducted to provide oral feedback on their experience on the course. Student feedback from course committees is part of the Faculty's quality assurance evidence base.

For more information about this course:

Course Leader: Dr. Efthimia Bilissi (E.Bilissi02@westminster.ac.uk)

Deputy Course Leader: Dr. Sophie Triantaphillidou (triants@westminster.ac.uk)

Admissions Tutors: Dr Efthimia Bilissi (E.Bilissi02@westminster.ac.uk), John Smith (smithj29@westminster.ac.uk)

Admissions: Nathalie Gerverun (N.Gerverun@westminster.ac.uk), Harrow Campus.

Website: www.westminster.ac.uk/courses/subjects/photography/undergraduate-courses/full-time/u09fucph-bsc-honours-clinical-photography

Please note: This programme specification provides a concise summary of the main features of the course and the learning outcomes that a student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. This specification should be read in conjunction with the Course Handbook provided to students and Module Handbooks, which provide more detailed information on the specific learning outcomes, content, teaching, learning and assessment methods for each module.

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