

CIRCULAR :-

The Head of the University Department of Computer Science, the Directors/ Heads of recognized Science Institutions concerned and the Principals of the affiliated Colleges in Science are hereby informed that the recommendation made by the Ad-hoc Board of Studies in Computer Science at its meeting held on 10th December, 2008 has been accepted by the Academic Council at its meeting held on 15th December, 2008 vide item No.4.25 and subsequently approved by the Management Council at its meeting held on 22nd December, 2008 vide item No.8 and that, in accordance therewith, the Post-graduate Diploma in Digital Composting and Visual Effects (PGDDCVE) has been introduced by the University from the academic year 2008-2009.

Further that, in exercise of the powers conferred upon the Management Council under Section 54(1) and Section 55(1) of the Maharashtra Universities Act 1994, it has made the **Ordinances 5816 and 5817 and Regulations 6057, 6058, 6059, 6060, 6060(A) and 6061** including the scheme of examination, syllabus and the Fee Structure prescribed for the Post-graduate Diploma in Digital Composting and Visual Effects (PGDDCVE) is as per Appendix.

MUMBAI - 400 032
25th February, 2009

PRIN. K.VENKATARAMANI
REGISTRAR

To,

The Head of the University Department of Computer Science, the Directors/Heads of recognized Science Institutions concerned and the Principals of the affiliated Colleges in Science.

A.C/4.25/15/12/2008
M.C/8/ 22/12/2008

No. UG/64-A of 2009

MUMBAI-400 03

25th February, 2009

Copy forwarded with compliments for information to :-

- 1) The Dean Faculty of Science.
- 2) The Chairman, Ad-hoc Board of Studies in Computer Science.
- 3) The Controller of Examinations,
- 4) The Co-Ordinator, University Computerization Centre.

(D.H.KATE)

DEPUTY REGISTRAR

U.G./P.G.Section.

Copy to :-

The Director, Board of College and University Development, the Deputy Registrar (Eligibility and Migration Section), the Director of Students Welfare, the Executive Secretary to the Vice-Chancellor, the Pro- Vice-Chancellor, the Registrar and the Assistant Registrar, Administrative sub-center, Ratnagiri for information.

The Controller of Examinations (10 copies), the Finance and Accounts Officer (2 copies), Record Section (5 copies), Publications Section (5 copies), the Deputy Registrar, Statistical Unit



UNIVERSITY OF MUMBAI



Post Graduate Diploma in Digital Compositing and Visual Effects (PGDDCVC)

(w. e. f. academic year 2008-2009)

UNIVERSITY OF MUMBAI

**Post Graduate Diploma in Digital Compositing and Visual Effects
(With effect from the Academic Year 2008-2009)**

PREAMBLE: VISION FOR THE PG Diploma in Digital Compositing and Visual Effects

There is no known academic courses that provide the theoretical scientific skills that will launch our professionals on the road to technical excellence in graphics, animation and visual effects in Mumbai. The 6 month Post Graduate Diploma aims at providing special skills to a graduate student in the field of animation, compositing and visual effects. The student is expected to learn the theory as she gains the skills in the software used by our film and television industry.

5816
Title of the course : Post Graduate Diploma in Digital Compositing and Visual Effects

5817
ADMISSION POLICY / ELIGIBILITY:

The course is open to computer literate graduates with a Bachelors degree in a design or film related discipline like BFA. The course is open to candidates with a Bachelor Degree in a Science and/ or industrial experience within a creative industry (such as multimedia or games). The candidate must have secured 45% marks at the graduate examination on the aggregate to be eligible for the entrance examination. All applicants after attending an Entry Examination will be required to demonstrate their abilities through an interview and/or Portfolio of visual work. The test and interviews will be conducted after the results of the graduate examination for the academic year.

The Entrance Test

This will be of two hours duration. It will consists of two main parts

- (1) Logical Reasoning, mathematics, computer skills
- (2) Creative art. Visualization. Modeling

R.6057

Duration of the Course:

The Post Graduate Diploma is a full time course and is of six calendar months duration from July to December

Limited Admissions:

Admissions will be limited to 30 candidates on the basis of their merit in the Entrance Examination and subsequent interview held thereafter

R.6053

Scheme of Examination

- **Credit System:** the Post Graduate Diploma course operates using the Credit Accumulation Transfer Scheme (CATS). In order to complete the course he/she requires modules of worth a total of 180 credits, but must not attempt more than 240 credits for their study. Single modules are weighted at 20 credits, double modules (such as the Project) at 40 credits and half modules (such as Professional Practice Management) at 10 credits.
- **Mode Of study:** The course is offered in Block (burst) mode the taught part of each 20 level 7 credit module will be delivered in a 'week-release' mode. The delivery of the module will be spread over a two week period with opportunities for practice, brainstorming and reflection. This is followed by self study period with supportive surgeries during which time work on assessment is undertaken.
- **Internal assessment:** continuous evaluation will take place internally by way of Orals/ Quizzes/Tests/Assignments/Team Work/Programming Practice work etc by the teachers dealing with the papers.

R.6059

Awards Of classes

The following is an indication of the general marking scale used throughout the course for the taught modules and the project. The pass mark for the modules is 50% and the students must achieve a minimum of 30% in each component of assessment. The University also awards PG Diploma with Merit and Distinction.

% Mark	Work Quality
90-100 (O)	Outstanding work within the set constraints and context
80-89 (A+)	Work is of Excellent standard demonstrating good skills/talent and original thought as well as of professional level. With reference to the Project, it is complete and the student shows that s/he can work on this subject quite independently in a company or in a research environment.
70-79 (A)	Work is of a very good to high standard. With reference to the Project it is complete, with major critical additions by the student. Competent in technical matters, the student understands the theory. Demonstrates the ability to solve own problems independently.
60-69 (B)	Work is good, with some additional consideration of quality and/or input by the student. With reference to the Project, it is complete, with minor critical additions by the student. Sometimes lacking in breadth of literature review and not very original. Has needed some help by supervisor.
50-59 (C)	Work is of satisfactory standard with little or no additional elements of quality or consideration. In terms of the Project, it is complete, but nothing much above 'textbook' – evaluation includes few points but little critical analysis. Some quality work but insufficient in quantity. All sections are covered but not to a high degree of competence.
31-49 (F)	Work is incomplete or poor – has submitted work but at least one aspect of the work needs improvement. With reference to the Project Module there is at least one aspect (report, or production) that needs improvement.
21-30 (F)	Understood brief but made weak effort in discussion or practical work. With reference to the Project Module, the project is more like a coursework than a project.
1-20 (F)	Misunderstood point of what s/he had to do – very little work of any quality. With reference to the Project module, Quality and content of project is more like a bad coursework
0 (F)	Plagiarism

6060

Award of Diploma

To qualify for the award of Post Graduate Diploma in Digital Compositing and Visual effects the student should have passed the 5 modules of Digital Production Process, Computer Graphics and Modeling, Core Computing and Core Visual Effects and the fifth module Professional Practice Management.

The University may award a Postgraduate Diploma with merit to a student where an average of between 60% and 69% has been achieved in all modules which count towards the award.

The University may award a Postgraduate Diploma with Distinction to a student where an average of at least 70% has been achieved in all modules which count toward the award.

Pass, Fail and Retrieval

Pass: The overall pass mark for all Postgraduate level module is 50% . Additionally, some modules may also specify a minimum level of achievement in any or all of the assessed elements within a module. A module may include both the course work and examination elements of assessment.

Fail: If the overall module mark is less than 50% the module has been failed even if some elements of assessments reached or exceeded the pass mark.

Reassessment / Referral

If a student fails to achieve an overall pass in a module and/or satisfactory standard in any part of the module, an assessment Board may decide, at its discretion, to allow the students to be reassessed (to resubmit coursework or resist exams for part or all of the module) provided that they have achieved an overall module mark of at least 40%.

A student will not normally be reassessed in a part of the module assessment in which they have already achieved the pass mark. Any student who is offered reassessment but who does not take up the offer will retain the fail mark originally recorded for the module.

The overall mark for any module successfully completed following reassessment/referral (resit) will be capped at the pass mark (50% for postgraduate modules) irrespective of the actual marks the students achieves.

The overall mark for any modules successfully completed following reassessment/referral (resit) will be capped at the pass mark (50% for postgraduate modules) irrespective of the actual mark the student achieves.

Re-attempt (retake)

Where a student failed a module, the assessment board may permit the student to re-attempt the module. Re-attempting a module means to study the module again with the attendance. The students must re-register for the module and complete all assessments. This applies regardless of the marks the student achieved in any element of assessment at the first attempt.

The actual marks awarded in a second attempt will be capped at the pass mark (50%) irrespective of the actual marks achieved.

Modules may be attempted only twice (i.e. a first attempt and a subsequent re-attempt). At the discretion of an assessment board, a student may be offered the opportunity of reassessment once only on each occasions that the attempt the module provided that they have achieved an overall module mark of at least 40% initially.

For the purposes of counting the number of credits that have been attempted towards the award of a Masters degree, a student must not have attempted more than 240 credits. A first attempt of any module will count as an attempt, and a reattempt will count as a further separate attempt. However reassessment (referral or resit) following failure at the first attempt does not count as a further separate attempt.

For example, if a student is reassessed in a 20 credit module following failure at the first attempt, then the first attempt and the reassessment will count as 20 credits attempted (in total). If a student then re-attempts a 20 credit module following failure in that module at the first attempt, the first attempt and the re-attempt shall together count as 40 credits attempted (irrespective of any reassessments).

Attendance

Three fourth of the day on which lectures are delivered and practical held is the minimum attendance necessary for the appearance in PGDDCVC examination.

Faculty

The course will be taught at two platforms, the one related to the Computer Science consisting of Computer Graphics, Animation and Compositing theory will be taught by Master degree holders, MSc(Computer Science), MSc(IT) or MCA with the requisite specializations and desirable experience. The platform related with Fine Arts which will involve multimedia and Creative experts will be shared by Industry Professionals.

These would be graduates/post graduates with specializations in relevant fields like graphics, animation, compositing and visual effects.

Practical Training

The PG-DDCVC computer laboratory must be equipped with the computers that can run the requisite software for graphics, animation, compositing and visual effects.

6060-A

Fees

Sr. No.	Particulars	Amount (Rs.)
1.	Tuition Fee	36,000
2.	Laboratory Fee	3,000
3.	P.G. Registration Fee	800
4.	P.G. Registration Form Fee	10
5.	Library Fee	150
6.	Office Fee (Rail Concession Fee)	20
7.	E-charge	20
Total		40,000

POST GRADUATE DIPLOMA IN DIGITAL COMPOSITING AND VISUAL EFFECTS

Syllabus of the Postgraduate Diploma in Digital compositing and visual effects

Full Module Title: Digital Production Process			
Short Title:	Module Digital Production	Module Code:	
Module Level:	7	Credit Value:	20
Length:	1 semester normally 4 weeks block mode		
Module Status:	Compulsory	Subject Board:	
Pre-requisites:	None	Co-requisites:	None
Assessment:	Examination 30% Coursework 70% Students will not normally be considered to have passed this module if their overall mark is less than 30% in any single component.		
Special Features:	None		
Access Restrictions:	None		
Content Summary:	Production process, perception, animation The student will explore the key issues and concepts in the digital production process for animation and visual effects as well as working within a team to produce an animation.		

Module Aims

- To provide students with an overview of the key concepts of digital production of animation and visual effects with reference to workflow, people and technology;
- To give students knowledge of the issues pertaining to digital data;
- To give students practical experience in the production of 2D computer animation.

Learning Outcomes

After completion of this module students should be able to:

1. Understand the importance of visual perception in producing believable CGI work;
2. Understand and appreciate the technologies, production teams, processes and workflow best practice;
3. Work as part of a group to develop an animation sequence;
4. Investigate and discuss critically and in depth issues pertinent to the field
5. Produce a sequence that demonstrates an applied understanding of the principles and techniques of animation.
6. Communicate information at a level appropriate to professional practice through documentation and presentation.

Indicative Syllabus Content

- History and context of animation and visual effects for film, television and new media.
- Introduction to physiology of the human eye and visual perception. This includes persistence of vision, monocular and binocular vision, motion perception, and colour vision.
- Fundamental concepts of digital data. The differences between analogue and digital data, pixels and digital image attributes including greyscale & colour channels, colour depth, colour space, aspect ratios, resolution, the role of compression, digital artefacts, file formats, frames and time.
- Overview of Video. The differences between standard and high definition television, NTSC and PAL; interlacing and square pixels, issues relating to frame rates, timecodes and resolution, colour sub-sampling systems including 4:2:2 and 4:2:0, safe areas, Telecine - 3:2 Pull-Down/Pull-Up.
- An overview of the core software and hardware technologies and concepts that are used in animation and visual effects including 2D & 3D animation toolsets, Node-based and layer-based compositors; and Non-Linear Editing platforms. Overview of on-set setup.
- The CGI production process. Students will be introduced to the production cycle for animation and CGI work including consideration of the production teams, storyboards, animatics, naming conventions, file organisation and workflow best practices.
- The principles of animation and practical animation work. Students will be given a grounding of the basics of practical animation work.

Teaching and Learning Methods

Lectures (30%), Tutorials and Workshops (70%). The module will be taught in a 4-week block and delivered in 'two week-release' mode followed by a self-study week that includes surgeries.

Assessment rationale

The assessment for the module will consist of an examination and two separate pieces of coursework. The examination will assess the students broad understanding of the concepts covered in the module. The first piece of coursework normally weighted at 20% will examine the students' ability to research and investigate through case study, literature review and interview a set topic and present a report. The second piece of coursework is a group based involving the production and presentation of a short 2D computer animation and will normally account for 50% of the assessment of the module.

All students will also be required to undertake a viva voce examination as part of the assessment of the module.

Assessment criteria

Assessments will be judged on the following criteria:

Understanding of the fundamental concepts covered in the module (Learning outcomes 2, 4)

Understanding of visual perception and its importance in production (Learning outcome 1)

Demonstration of practical skills in applying the techniques covered in the module (Learning outcome 3, 5)

Ability to work in a group using efficient production management approaches in producing animation (Learning outcome 2, 3, 5, 6)

Report writing, research, analysis and presentation skills (Learning outcomes 4, 6)

Assessment Methods and Weightings

Component	Assessment	Module Weighting	Learning Outcomes Measured
Examination	90 minute examination consisting of multiple choice, and short answer sections	30%	1, 2
Coursework 1	Industry research and report	20%	2, 4, 6
Coursework 2	Group animation work and presentation	50%	1, 2, 3, 5, 6

Sources

Essential Reading

- The Illusion of Life: Disney Animation
Thomas, Johnson, 1997
Hyperion; ISBN: 0786860707
- The Digital Producer: Getting It Done with Computer-Based Tools: Getting It
Done with Computer-based Tools
Curtis Poole Ellen Feldman, 1999
Focal Press; ISBN: 0240803957
- Art of 3D: Computer Animation and Effects
Isaac V. Kerlow, 2003
John Wiley & Sons; ISBN: 0471430366

Further Reading

- A Guide to Computer Animation for TV, Games, Multimedia and Web
Kuperberg, Marcia *et al*
Focal Press; ISBN: 0240516710
- Digital Filmmaking: The Changing Art and Craft of Making Motion Pictures
Thomas Ohanian, Michael E Phillips, 2000
Focal Press; ISBN: 0240804279
- Inspired 3D Short Film Production
Pepe Valencia, Jeremy Cantor, 2004
Premier Press; ISBN: 1592001173

WWW References

Up to date URLs will be provided to students through tutorial sheets and the course website for reference and example case studies.

Full Module Title: Computer Graphics and Modelling			
Short Title:	Module	Computer Modelling	Module Code:
Module Level:	7		Credit Value: 20
Length:	1 semester normally 4 weeks block mode		
Module Status:	Compulsory	Subject Board:	
Pre-requisites:	None	Co-requisites:	None
Assessment:	Coursework 100% Students will not normally be considered to have passed this module if their overall coursework mark is less than 30% in any single coursework.		
Special Features:	None		
Access Restrictions:	None		
Content Summary:	Computer Graphics, Modelling, Rendering The student will learn the common techniques and methods for computer graphics: exploring modelling, texture mapping, lighting and rendering.		

Module Aims

- To provide students with an understanding of the algorithms and theories that form the basis of computer graphics and modelling;
- To provide students with an understanding of the algorithms and theories that form the basis of computer graphics and modelling;
- To enable students to acquire practical knowledge and experience of modelling technologies and techniques;
- To give students skills necessary in the production of 3D models, lighting, and rendering.

Learning Outcomes

After completion of this module students should be able to:

1. Understand the importance of different algorithms and the implications of these for 3D modelling;
2. ability to critically examine and assess the appropriate techniques and methods for production of 3D models and scenes;
3. Demonstrate an applied understanding of the principles of modelling, lighting and mapping.

4. Assess appropriate rendering strategies and techniques

Indicative Syllabus Content

- Introduction to basic computer graphics concepts. Vector and geometrical principles and algorithms.
- Curve and surface descriptions. Primitives, beiziers, splines and parametric surface algorithms.
- Surface modelling. Modelling techniques including NURBs, extrusion, lathing, sweeping and skinning. Boolean operations.
- Shading and rendering models. Phong, Gouraud and surface models. Ray tracing, classifications and calculations, Beam tracing and overview of radiosity.
- Overview of Mapping. Texture mapping, bitmap representation, plane projections, Bump mapping, procedural and environmental maps.
- Practical modelling using primitives and advanced techniques, object hierarchies, shaders and materials
- Lighting and camera concepts. Camera types and attributes, shots and lens. Light sources and attributes, global and local lights, lighting design.
- File formats for animation and rendering of models.

Teaching and Learning Methods

Lectures (40%), Tutorials and Workshops (60%). The module will be taught in a 4-week block and delivered in 'two week-release' mode followed by a self-study week that includes surgeries

Assessment rationale

The assessment for the module will typically consist of two separate pieces of work. The first piece of work will require the student to produce new models based on a given or agreed brief to meet 'client' requirements. The other piece will examine the students' ability to place the models into a scene with suitable lighting design and set up and use appropriate rendering to produce outputs. All students will also be required to undertake a viva voce examination as part of the assessment of the module and produce a report describing their work

Assessment criteria

Assessments will be judged on the following criteria:

- Understanding of 3D graphics and modelling algorithms (Learning outcome 1)
- Understanding 3D graphic methods and production techniques (Learning outcome 2)
- Demonstration of practical skills in applying the techniques covered in the module (Learning outcome 3, 4)
- Report writing skills (Learning outcomes 1, 2)

Assessment Methods and Weightings

Component	Assessment	Module Weighting	Learning Outcomes Measured
Coursework 1	Modelling of elements	60%	1,2,3
Coursework 2	Scene setup and rendering	40%	1, 2, 3, 4

Sources

Essential Reading

Applied Geometry for Computer Graphics and CAD

Duncan Marsh, 1999

Springer-Verlag UK; ISBN: 1852330805

3-D Modeling and Surfacing

Fleming, Bill 1999

Academic Press Inc; ISBN: 0122604903

3D Staging, Lighting, and Animation

Fleming, Bill 2000

Morgan Kaufmann; ISBN: 0122604954

Further Reading

The Art of 3-D Computer Animation and Imagery

Kerlow, I.V., 1996

John Wiley and Sons; ISBN: 0471286494

Principles of Three-Dimensional Computer Animation: Modeling, Rendering, and Animating With 3d Computer Graphics

O'Rourke, Michael 1998

W. W. Norton & Company; ISBN: 0393730247

Advanced 3D Photorealism Techniques

Fleming, Bill 1999

John Wiley and Sons; ISBN: 0471344036

WWW References

Up to date URLs will be provided to students through tutorial sheets and the course website for reference and example case studies.

Full Module Title:	Core Compositing		
Module Level:	7	Credit Value:	20
Length:	1 semester normally 4 weeks block mode		
Module Status:	Compulsory	Subject Board:	
Pre-requisites:	TBA	Co-requisites:	None
Assessment:	Coursework 100% Students will not normally be considered to have passed this module if their overall coursework mark is less than 30% in any coursework component.		
Special Features:	None		
Access Restrictions:	None		
Content Summary:	Compositing, Postproduction The student will learn the foundations of digital compositing.		

Module Aims

- To provide students with an understanding of the fundamental issues, technologies and techniques involved in postproduction work;
- To enable students to appreciate the complexities of integrating computer generated images and animations with real footage;
- To provide students with the necessary knowledge and skills to undertake core compositing work.

Learning Outcomes

After completion of this module students should be able to demonstrate:

1. knowledge of the concepts behind current compositing approaches for video data;
2. ability to assess, formulate and reflect critically on appropriate strategies for a given problem or requirement;
3. an applied understanding of the principles of composite work;
4. ability to apply and justify the use of common compositing techniques to create animation/video sequences that satisfy a given brief.

Indicative Syllabus Content

- Brief overview of technologies and toolsets used for compositing work. including multipass, depth and multiplane composites, the pipeline and work on set.
- Mathematical foundations of compositing operators and methods
- Film. Overview of film formats and process, aspect ratios, resolutions, film scanners and recorders, Digital Intermediate.
- Exploration of projects through case studies considering both traditional and CGI methods and discussion of shooting requirements.
- Masks and Mattes. Creation and use of masks and mattes, garbage mattes, travelling and tracking mattes, alpha channels.
- Compositing. Overview of masks including Key, Alpha, Luma-key, Difference mask, Colour Difference Masks and chroma-key. Layers. Adding shadows, basic bluescreen compositing. Matching light space and adjusting for brightness and colour.
- Basic rotoscoping techniques.
- Tracking, stabilisation and rig removal.

Teaching and Learning Methods

Lectures (20%), Tutorials and Workshops (80%). The module will be taught in a 4-week block and delivered in 'two week-release' mode followed by a self-study week that includes surgeries.

Assessment rationale

The assessment for the module will consist of a single piece of work with several deliverables accounting for 100% of the assessment of the module. The work will require the production of an appropriate final sequence of length that requires planning and compositing.

All students will also be required to undertake a viva voce examination as part of the assessment of the module.

Assessment criteria

Assessments will be judged on the following criteria:

- Understanding of the concepts behind current postproduction work (Learning outcome 1)
- Ability to assess and formulate appropriate strategies for a given problem or requirement (Learning outcome 2)
- Ability to apply common techniques of compositing to create animation/video sequences that satisfy a given brief. (Learning outcome 3 and 4)

Assessment Methods and Weightings

Component	Assessment	Module Weighting	Learning Outcomes Measured
Coursework 1	Production of a composite sequence with consideration of production workflow and pipeline	100%	1,2,3

Sources

Essential Reading

The Art and Science of Digital Compositing: Techniques for Visual Effects, Animation and Motion Graphics

Ron Brinkman, 2008

Morgan Kaufmann; ISBN: 0123706386

Digital Compositing for Film and Video 2nd Edition, 2006

Wright, Steve

Focal Press; ISBN: 024080760-X

Further Reading

Digital Compositing in Depth: The Only Guide to Post Production for Visual Effects in Film

Kelly, Doug 2000

Coriolis Group Books; ISBN: 1576104311

The Art of Visual Effects: Interviews on the Tools of the Trade

Rogers, Pauline B. 1999

Focal Press; ISBN: 0240803752

Filming the Fantastic: A Guide to Visual Effects Cinematography

Mark Sawicki

Focal Press; ISBN: 0240809157

WWW References

Up to date URLs will be provided to students through tutorial sheets and the course website for reference and example case studies.

Full Module Title:	Core Visual Effects		
Module Level:	7	Credit Value:	20
Length:	1 semester normally 4 weeks block mode		
Module Status:	Compulsory	Subject Board:	
Pre-requisites:	TBA	Co-requisites:	None
Assessment:	Coursework 100% Students will not normally be considered to have passed this module if their overall coursework mark is less than 30% in any coursework component.		
Special Features:	None		
Access Restrictions:	None		
Content Summary:	Compositing, effects The student will learn the foundations of visual effects.		

Module Aims

- To provide students with an understanding of some techniques that can be used to enhance standard composite shots;
- To enable students to appreciate the complexities of working with particle, lighting and 2D morphing effects;
- To provide students with the necessary knowledge and skills to extend core compositing work using visual effects.

Learning Outcomes

After completion of this module students should be able to demonstrate:

1. knowledge of the visual effects workflow and its role within production;
2. Practical and applied understanding of lighting, particle and visual effect techniques;
3. Ability to assess, formulate and reflect critically on appropriate strategies for a given problem or requirement;
4. The ability to plan and structure the production work;
5. Work effectively as part of a group to develop a visual effect shot;
6. Communicate information at a level appropriate to professional practice through documentation and presentation.

Indicative Syllabus Content

- Visual effects in context. Special effects, models, matte painting, optical and physical effects.
- Lighting Effects including CGI lights, Shadows (density, colour, edge variations), environmental haze, glow effects, strobe effects
- Camera effects including defocus, motion blurs, lens flares
- Grain. Generating, applying and matching grain
- Filters, geometric transforms and basic effects. Colour and contrast change, Slot gags, sharp, dissolve, corner pins, wraps and 2D morphs
- Particle and fluid simulation. Fire, water, smoke, particle attributes. Vector Mathematics and Motion Analysis.
- Exploration of projects through case studies

Teaching and Learning Methods

Lectures (20%), Tutorials and Workshops (80%). The module will be taught in a 4-week block and delivered in 'two week-release' mode followed by a self-study week that includes surgeries.

Assessment rationale

The assessment for the module will consist of two pieces of coursework, the first will be an individual piece of work normally weighted at 30% and involving the creation of a simple visual effect shot using basic effects such as colour, wraps and filters.

The second coursework will be a group based piece involving the creation and integration of particle or fluid elements within a scene that has additional lighting and other effects. Students will be required to work on several elements which include storyboards and pre-visualisation work in addition to the final artefact. Students will be expected to present the final work.

All students will also be required to undertake a viva voce examination as part of the assessment of the module.

Assessment criteria

Assessments will be judged on the following criteria:

- Understanding of the concepts behind core visual effects methods (Learning outcome 1, 2)
- The ability to create suitable effects shots and scenes using various CGI elements including particles. (Learning outcome 2, 3, 4)
- Ability to apply a professional approach to planning and presenting work. (Learning outcome 3 and 4)

Assessment Methods and Weightings

Component	Assessment	Module Weighting	Learning Outcomes Measured
Coursework 1	Individual visual effect shot	30%	1,2,3,4
Coursework 2	Group visual effect workflow, artefact and presentation	70%	1, 2, 3, 5, 6

Sources

Essential Reading

Creating 3D Effects for Film, TV, and Games 1e
David Santiago, 2005

Delmar Learning; ISBN: 1592005896

The Art and Science of Digital Compositing: Techniques for Visual Effects,
Animation and Motion Graphics

Ron Brinkman, 2008

Morgan Kaufmann; ISBN: 0123706386

Special Effects: The History and Technique

Richard Rickitt, 2006

Aurum Press Ltd ; ISBN: 1845131304

Further Reading

Exploring Visual Effects 1e

Woody, 2006

Delmar Learning; ISBN: 140187987X

The Art of Visual Effects: Interviews on the Tools of the Trade

Rogers, Pauline B. 1999

Focal Press; ISBN: 0240803752

Filming the Fantastic: A Guide to Visual Effects Cinematography

Mark Sawicki

Focal Press; ISBN: 0240809157

Visual Effects Cinematography

Zoran Perisic, 2001

Focal Press; ISBN: 0240803515

WWW References

Up to date URLs will be provided to students through tutorial sheets and the course website for reference and example case studies.

Full Module Title:	Professional Practice Management		
Module Level:	7	Credit Value:	10
Length:	1 semester normally		
Module Status:	Compulsory	Subject Board:	
Pre-requisites:		Co-requisites:	None
Assessment:	Coursework 100% Students will not normally be considered to have passed this module if their overall coursework mark is less than 30% in any coursework component.		
Special Features:	None		
Access Restrictions:	None		
Teaching Methods:	Normally the module will be delivered by workshops, surgeries, and presentations.		
Content Summary:	The student will place their craft within the context of business and the commercial constraints and requirements. Students through presentations, case studies, and where possible studio tours will develop an understanding of both the animation/CGI industry as well as the client industries including film and television. The importance of management processes and business planning will be highlighted and the module will cover issues pertaining to the role of project managers/TDs/Supervisors, legal factors, proposals, budgets and schedules.		

Module Aims

- To provide students with an understanding of the commercial sector and the importance of business planning;
- To offer students an insight into the role of a project manager. Technical Director or VFX/animation supervisor;
- To give students foundational knowledge and skills to develop a proposal/pitch taking consideration of budgets and schedules;
- To give students an awareness of legal rights;
- To enhance students professional and transferable skills

Learning Outcomes

After completion of this module students should be able to demonstrate:

1. An understanding of the national and international Animation and Visual effects industries as well as the client sectors;
2. Understand the complexities of production, the variety of roles, participants and interdependencies that are required to successfully complete and manage the production.
3. Practical and applied foundational understanding of proposals, budgeting and scheduling
4. The ability to plan and structure the work;
5. Work effectively as part of a group to produce and present a proposal;
6. The ability to present information effectively to clients and appreciate the role of communication.
7. Communicate information at a level appropriate to professional practice through documentation and presentation.
8. Reflect upon their learning to formulate academic and personal plans.

Indicative Syllabus Content

- The global Animation and Visual Effects industry. Key players, case studies, presentations, guest lectures and studio visits.
- The Client. Film, Television, Advertising, Games and New Media, Key players and organizations.
- The pitch, concept and proposals.
- Budgets and Scheduling. Costs, resources, schedules, risks, floats, the production workflow etc.
- Legal. Copyrights, IPR, ethics, credits.
- Plagiarism and professionalism

Teaching and Learning Methods

The module will be taught in as a 2 day workshop supported by follow on surgery sessions and supplemented as appropriate by guest presentations. Students are expected to undertake self directed study followed by submission and presentation of work.

Assessment rationale

The assessment for the module will consist of three pieces of coursework, the first will be an individual piece of work normally weighted at 30% and involving the investigation and presentation of a commercial topic. Students will be expected make a presentation and provide supporting materials.

The second coursework will be a group based piece involving the assessment of a client requirement and the submission of a initial proposal, and the presentation of a pitch and concept. The students would be expected as part of this proposal to consider and present budget and scheduling information.

The third piece of work is a Personal Development Plan (PDP) - Students will be expected to produce a PDP which is a learning log and record of achievement to reflect upon their learning and development during their postgraduate studies. This is required component of the module but is not assessed at this stage. Students on the *Professional Practice Management II* module as part of the MSc Digital Compositing and Visual Effects will continue and complete their PDP and have it assessed at that stage. The PDP is considered important for encouraging reflection and development for both academic and career planning.

All students will also be required to undertake a viva voce examination as part of the assessment of the module.

Assessment criteria

Assessments will be judged on the following criteria:

- Understanding of the commercial and international context of the field and the ability to research and analysis a related research topic relating (Learning outcome 1, 4, 7)
- Ability to apply a professional approach to planning and presenting work. (Learning outcome 2, 4, 7)
- Ability to work in a group to plan, pitch and develop a concept and to submit work to a given deadline (Learning outcome 2, 3, 4, 5, 6)
- Report writing, research, analysis and presentation skills (Learning outcomes 4, 6, 7)
- The ability to define and describe key qualities, attributes and skills the students possess (Learning outcomes 8)
- The ability to demonstrate by illustration the evidence which indicate the key qualities, attributes and skills that the students possess (Learning outcomes 8)
- The ability to show how students may apply their key qualities, attributes and skills in developing and implementing an effective progression through learning and work (Learning outcomes 8)

Assessment Methods and Weightings

Component	Assessment	Module Weighting	Learning Outcomes Measured
Coursework 1	Individual research presentation	30%	1,4,7
Coursework 2	Group proposal and pitch	70%	1; 2, 3, 4, 5, 6
Coursework 3	Personal Development Plan (not credit bearing but must be completed)	0%	8

Sources

Essential Reading

Producing Animation

Catherine Winder and Zahra Dowlatabadi. 2001
Focal Press; ISBN: 0240804120

Project Management Demystified

Geoff Reiss, 2007

Taylor & Francis Ltd; ISBN: 0415421632

Further Reading

Inspired 3D Short Film Production

Pepe Valencia, Jeremy Cantor, 2004

Premier Press; ISBN: 1592001173

The Complete Film Production Handbook

Eve Light Honthamer, 2001

Focal Press; ISBN: 0240804198

WWW References

Up to date URLs will be provided to students through tutorial sheets and the course website for reference and example case studies.

(Note: The Students after successfully passing the examination at the Post Graduate Diploma in Digital Compositing and Visual effects is eligible for admission to the MSC in Digital Compositing and Visual effects course conducted by the University of Westminster. The PG Diploma will be considered as the Semester of the MSC course which will be conducted in London. There may be an additional English Proficiency test conducted by the University of Westminster

In addition the University of Westminster may decide to conduct a test in English for entry to the MSC course, though this will not influence the selection at PG Diploma. The test in English may serve as a basis of students being asked to improve their skills in English so that they can be eligible for admission to the second Semester).