Welcome to CTPR 423. We meet **Monday evenings from 7pm to 11pm** on SCA stage #3. This is **NOT a lecture class**; it is a hands-on workshop and class attendance is mandatory.

**Tardiness is not accepted.**

**Course objective**

CTPR 423 is a hands-on workshop designed to further the understanding of the fundamentals of production and categorization of special effects elements as well as the time requirement, logistics and costs associated with the production of special effects used in Film, TV and Digital Media. This objective is met through lectures, and hands-on practical exercises when appropriate, in which Directors, Directors of Photography, Production Managers, as well as future Effects Supervisors and Special Effects Technicians, receive a firsthand look and feel for producing effects elements.

**SAFETY SEMINAR**

All students working on the USC stages or on film locations are required to attend a **Safety Seminar**. Three seminar meetings are offered each semester. Two seminars are offered prior to the start of the new semester. One seminar is offered after the start of the semester. Please check with the production department for dates. No make-up seminar is available outside the three outlined above.

**STAGE SAFETY CHECK-OUT**

HERB HUGHES, Stage Manager & Specialized Equipment Manager, will conduct a **stage safety check out** once the semester is in session. Students will learn where everything is located on the stage and the safe operation in a soundstage environment. Eye protection, goggles or safety glasses, as well as leather work gloves, are mandatory when working on production. Open toe shoes and shorts or cut-offs are not allowed when working on production. Long sleeve shirts are recommended for work on production.

**REQUIRED EQUIPMENT**

- **EYE PROTECTION – GOGGLES OR SAFETY GLASSES**
- **WORK GLOVES WITH LEATHER PALMS**
- **SD MEMORY CHIP (2GB MIN)**
- **CAMERA – FILM OR DIGITAL**
  (If using a camera built into a device, you must be able to export images for class exercise credit.)
FINAL FILM PROJECT

FOUR PRODUCTION GROUPS WILL BE FORMED FROM THE CLASS BODY.
EACH GROUP WILL PRODUCE A FINAL FILM PROJECT CONTAINING SPECIAL EFFECTS SHOTS.

ASSIGNMENTS
DUE: FIRST CLASS MEETING -
BRING TO CLASS A ONE PARAGRAPHS ORIGINAL STORY THAT CAN BE USED TO CREATE A FIRST DRAFT SCRIPT, (CAN BE A SHORT FILM OR A TRAILER FOR A FILM YET TO BE PRODUCED). Bring a notebook to record notes and diagrams from class exercises and lectures. This notebook is a requirement and will be graded at the midterm exam session and again at the final exam session.

DUE: CLASS MEETING EIGHT
FORCED PERSPECTIVE PROJECT UTILIZING MINIATURE PRIVATE AIRPLANE TO CREATE A CRASH SITE SCENE ON A CITY STREET.
INCLUDE FULL SIZE ACTORS IN YOUR SHOT. SMOKE EFFECTS ARE OPTIONAL.
COMPLETE ON 16MM FILM OR MOTION DIGITAL CAPTURE

CLASS EXERCISES
CLASS MEETINGS INCORPORATING HANDS-ON EXERCISES WILL BE PERFORMED BY EACH OF THE FOUR PRODUCTION GROUPS CREATED AT THE START OF THE SEMESTER. BRING SD CARDS AND/OR YOUR CAMERA TO CLASS EVERY MEETING.

BOOKS I RECOMMEND:
Secrets of Hollywood Special Effects – Robert E. McCarthy
The American Cinematographer Manual - Fred H. Detmers
Professional Cameraman’s Handbook - Vern & Sylvia
The Bare Bones Camera Course for Film and Video – Tom Schroepel

GRADING
ASSIGNMENTS 20%
WORKSHOP EVALUATION 20%
MID TERM EXAM 15%
MID TERM NOTEBOOK REVIEW 5%
FINAL EXAM 15%
FINAL EXAM NOTEBOOK REVIEW 5%
FINAL FILM PROJECT 20%
Extra credit projects earn up to 20 points on final film project grade.

GRADE EARNED                  PERCENTAGE OF TOTAL
A                                91
B                                80
C                                70
D                                BELOW 70

PRODUCTION EQUIPMENT
THE EQUIPMENT DEMONSTRATED IN CLASS IS AVAILABLE FOR YOUR FINAL FILM PROJECTS. YOU WILL RECEIVE A SIMPLE LIGHTING PACKAGE FROM THE CLASS EQUIPMENT STORES. TWO CANON VIXIA HFR11 CAMERA SYSTEMS ARE AVAILABLE FOR YOUR FINAL FILM PROJECT. YOU MAY ALSO USE YOUR OWN EQUIPMENT. YOU ARE RESPONSIBLE FOR EXPENDABLES.
STUDENTS WITH DISABILITIES:

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester.
A letter of verification for approved accommodations can be obtained from DSP.
Please be sure that the letter is delivered to the Professor as early in the semester as possible.
DSP is located in STU 301 and is open 8:30 am-5pm, Monday through Friday. The phone number is 213-740-0776.

Statement on Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: http://www.usc.edu/dept/publications/SCAMPUS/gov/. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: http://www.usc.edu/student-affairs/SJACS/.
MEETING #1  
COURSE OVERVIEW
INTRODUCTION TO SPECIAL EFFECTS TECHNIQUES, FILM, TV AND DIGITAL MEDIA
SPECIAL EFFECTS COST AND OPERATIONAL CHARACTERISTICS & HISTORY.
SPECIAL EFFECTS CATEGORIES: IN THE CAMERA EFFECTS, (BASIC EFFECTS), PHYSICAL EFFECTS, VISUAL EFFECTS.
MAKE-UP EFFECTS, ATMOSPHERIC EFFECTS, MINIATURE EFFECTS, COMPUTER GENERATED EFFECTS.

STAGE SAFETY CHECK OUT
EQUIPMENT AND PROCEDURE CHECKOUT, INTRODUCTION TO CAMERA SYSTEMS.

PURCHASE FOR NEXT CLASS
LEATHER GLOVES
EYE GOGGLES
2GB SD MEMORY

In fall 2012 Meeting #2 will be cancelled due to Labor Day. The material will be covered in Meeting #3.

MEETING #2  
SPECIAL MAKE-UP EFFECTS FOR CLASSIC FILM, TV AND DIGITAL MEDIA
BLOOD, BONES, SLIME AND PROSTHETICS, CASTING BODY PARTS, FROSTBITE, SCARS, WOUNDS, SCRATCHES, TEARS, SWEAT AND BLOOD EFFECTS, PITCH SCRIPTS.

MEETING #3  
PHYSICAL EFFECTS
STUNTS, FIGHTS AND BREAKAWAY PROPS, BREAKING AND COLLAPSING SCENERY, BREAKING WINDOWS, BREAKING BOTTLES, CROCKERY AND CHAIRS, ARROWS, KNIVES, SWORDS AND DAGGERS, HOT AND MOLTEN METAL.

PURCHASE FOR NEXT CLASS
PLASTIC MODEL AIRPLANE KIT
CEMENT TO ASSEMBLE KIT
MEETING #4

**IN-THE-CAMERA EFFECTS FOR CLASSIC FILM, TV AND DIGITAL MEDIA**

REVERSE ACTION, UNDER/OVER CRANK PHOTOGRAPHY, SUPERIMPOSITIONS; PLACING THE SUPER; COLORED SUPERIMPOSITIONS; OVERLAYS; DOUBLE EXPOSURES MIRROR EFFECTS; GLASS SHOTS AND SPLIT SCREEN (FIXED-MATTE) SHOTS. THE NODAL POINT AS USED IN VISUAL EFFECTS CAPTURE. NIGHT VISION. MIRROR EFFECTS. FIFTY-FIFTY MIRRORS. SCENIC PROJECTION FRONT AND REAR SCREEN. MATTES & GLASS SHOTS. PROJECTED LIGHT EFFECTS.

**PURCHASE FOR NEXT CLASS**

PLASTIC KNIFE (FROM TOY STORE) MUST LOOK MENACING.

MEETING #5

**VISUAL EFFECTS**

RED/GREEN/BLUE SCREEN CAPTURE TECHNIQUES AND LIGHTING. MINIATURES AND MOTION CONTROL CAPTURE. NODAL POINT. MOTION CONTROL. LIVE ACTION. TRAVELING MATTE CREATION. COLOR SEPARATIONS. ROTOSCOPING MATTES. INTRO TO COMPOSITE PROGRAMS. CREATING ANIMATION, COMPOSITES AND SPECIAL EFFECTS FOR TV, FILM AND MORE – WITH AFTER EFFECTS.

**ASSIGNMENTS**

FORCED PERSPECTIVE PROJECT WITH AIRPLANE MINIATURE. DUE DATE: (MEETING #8).

MEETING #6

**MINIATURES**

MINIATURE EFFECTS “ON LOCATION,” “IN THE STUDIO.” FOREGROUND HANGING MINIATURES, MINIATURE CONSTRUCTION, KIT BASHING. MINIATURE LIGHTING. MODELS. ATMOSPHERIC EFFECTS FOR MINIATURE SETS.

**REVIEW MID TERM EXAM**
MEETING #7

ATMOSPHERIC EFFECTS
FOG, CLOUDS, SMOKE, RAIN, MIST, HAIL, LIGHTNING, STORMS. SNOW, FALLING, SET DRESSING AND AS USED FOR MINIATURES. FROST & ICE. WIND, BLIZZARDS, DUST AND COBWEBS, WET & DRY. DRY ICE GENERATORS, WATER IN THE STUDIO. THE SMOKE GUN. LAVA, QUICKSAND AND SWAMPS.

MID TERM EXAM & NOTEBOOK DUE

MEETING #8

SPECIAL EFFECTS PROPS
CONSTRUCTION, POLYSTYRENE FABRICATION AND MODELING. MOLD MAKING. LATEX CASTING. GLASS FIBER LAY-UPS AND CASTING RESIN. PLASTIC FORMING MACHINES. PLASTER OF PARIS & PLASTER TURNING. NUMERICAL INDICATORS. RADAR AND OSCILLOSCOPES. SCI-FI LIGHTS AND ELECTRICAL FLASHES. RAY GUNS & BLASTERS. LABORATORY AND CHEMICAL EFFECTS. POPPING CORKS AND SHAKING EQUIPMENT. SOME SPECIAL PLANTS. PHOTOGRAPHS ON THE SCREEN.

CLASS EXERCISE*
EFFECT OBJECTIVE: BUILD SPECIAL EFFECTS PROP – BLEEDING KNIFE

MID TERM EXAM RETURN AND REVIEW

DEADLINE FOR EXTRA CREDIT PROPOSAL SUBMISSIONS

MEETING #9

PYROTECHNIC EFFECTS PART I
THE LAW, SAFETY PRECAUTIONS. PYROTECHNIC AND OTHER SMOKES. BULLET EFFECTS USING COMPRESSED AIR. BULLET EFFECTS ON PEOPLE. BULLET EFFECTS IN GLASS AND MIRRORS. BULLET EFFECTS ON VASES AND BOTTLES. BULLET EFFECTS IN SCENERY.
MEETING #10

PYROTECHNIC EFFECTS PART II
THE LAW. SAFETY PRECAUTIONS. PYROTECHNIC CONSTRUCTION. PYROTECHNIC MIXTURE. PYROTECHNIC EXPLOSIONS. TYPES OF EXPLOSIONS. FIRING BOXES AND EXPLOSIONS. REMOTE CONTROLS. SAFE STUDIO EXPLOSIONS. FLAMES. FIRES AND FURNACES. FIRE EFFECTS IN THE OPEN. FIRE EFFECTS IN THE STUDIO. DESTRUCTION OF AN AUTOMOBILE.

MEETING #11

TEAM#1 PRODUCTION STAGE 3 CALL TIME 6:00 P.M.
CLASS EXERCISES IN TECHNIQUES AS APPLIES TO THE SCRIPTED PAGE. *

ASSIGNMENT: COMPLETE PHOTOGRAPHY OF PROJECT CLOSED SET

MEETING #12

TEAM#2 PRODUCTION STAGE 3 CALL TIME 6:00 P.M.
CLASS EXERCISES IN TECHNIQUES AS APPLIES TO THE SCRIPTED PAGE. *

ASSIGNMENT: COMPLETE PHOTOGRAPHY OF PROJECT CLOSED SET

MEETING #13

TEAM #3 PRODUCTION STAGE 3 CALL TIME 6:00 P.M.
CLASS EXERCISES IN TECHNIQUES AS APPLIES TO THE SCRIPTED PAGE. *

ASSIGNMENT: COMPLETE PHOTOGRAPHY OF PROJECT CLOSED SET
MEETING #14

TEAM #4 PRODUCTION STAGE 3 CALL TIME 6:00 P.M.
CLASS EXERCISES IN TECHNIQUES AS APPLIES TO THE
SCRIPTED PAGE.

ASSIGNMENT: COMPLETE PHOTOGRAPHY OF
PROJECT

CLOSED SET

MEETING #15

SCREEN FINISHED FINAL FILM PROJECTS
FROM TEAM #1 AND TEAM 2

RECAP OF COURSE MATERIALS
REVIEW FOR THE FINAL EXAM

MEETING #16

SCREEN FINISHED FINAL FILM PROJECTS
TEAM #3 AND TEAM #4
Q&A PERTAINING TO PENDING FINAL EXAM,

FINAL EXAM & NOTEBOOK DUE

* COUNTS TOWARDS FINAL GRADE
GUIDELINE
EXTRA CREDIT PROJECTS

IN PRESENTING A PROJECT FOR EXTRA CREDIT CONSIDERATION, THE FOLLOWING IS A GUIDELINE FOR THE ACCEPTANCE OF ANY SUBMISSION.

A WRITTEN PAPER OUTLINING THE OBJECTIVE OF THE PROJECT AND STORYBOARDS INDICATING VIEW ANGLES AND EQUIPMENT PLACEMENT MUST ACCOMPANY ALL SUBMITTED PROJECTS.

ALL STATED OBJECTIVES MUST INCLUDE A STORYBOARD OF THE ACTION, WITH DIALOG/NARRATION SHOWN BENEATH EACH BOARD FRAME.

ALL PROJECTS MUST BE IN THE FORM OF MOTION PICTURE FILM 16MM OR HIGHER, OR 16/9 OR 24P FORMAT.

A DETAILED CAMERA REPORT AND CREW LIST MUST ACCOMPANY EACH PROJECT.

A SLATE MUST APPEAR AT THE HEAD OR TAIL OF EACH TAKE WITHIN THE PROJECT AND MUST DISPLAY THE FOLLOWING:

TITLE OF PROJECT
DIRECTOR’S NAME
CAMERAPerson’S NAME
THE DATE OF THE FILMING
SCENE# AND TAKE#
THE FILM STOCK ID
SOUND OR MOS
A COLOR BAR CHART. ALL ITEMS MUST BE READABLE WHEN VIEWED THROUGH A MOVIESCOPE OR VIDEO PLAY BACK.

EACH Film PROJECT PRODUCER MUST PRESENT HIS/HER PROJECT IN A SCREENING BEFORE THE CLASS BODY, ALONG WITH A STATEMENT OF OBJECTIVES. PROJECT PROPOSALS MUST BE SUBMITTED PRIOR TO THE 10TH CLASS MEETING TO BE CONSIDERED FOR "GO AHEAD".

ALL EXPENSES, INCLUDING PROCESSING AND FILM, ARE THE RESPONSIBILITY OF THE FILM PRODUCER.

IF TWO OR MORE PRODUCERS COMBINE RESOURCES TO CONSOLIDATE COSTS, EACH MUST PRODUCE AN ENTIRELY SEPARATE SCENE OR SEQUENCE.

WORK ON EXTRA CREDIT PROJECTS IS NOT TO BE COMPLETED DURING CLASS TIME.
**Special Effects**

This department oversees the mechanical effects—also called **practical** or **physical** effects—that create optical illusions during live-action shooting. It is not to be confused with the **visual effects** department, which adds photographic effects during filming to be altered later during **video editing** in the **post-production** process.

- **Special Effects Supervisor**
  
The Special Effects Supervisor instructs the **special effects** crew on how to design moving set elements and props that will safely break, explode, burn, collapse andimplode without destroying the film set. She/he is also responsible for reproducing weather conditions and other on-camera **magic**.

- **Special Effects Assistant**
  
The SFX Assistants carry out the instructions of the Special Effects Supervisor, building set pieces like breakaway furniture and cities in miniature, lighting pyrotechnics, and setting up rigging equipment for stunts. They also assist in prosthetic makeup.

**Visual Effects**

Visual effects commonly refers to post-production alterations of the film's images, although the VFX crew works alongside the **Special Effects** Department for any on-set optical effects that need physical representation during filming (on camera.)

- **Visual Effects Producer**
  
The Visual Effects Producer works with the Visual Effects Supervisor to break down the script into storyboards, and advises the Director as to how s/he should approach the scenes. Together they determine which sequences are to be shot as live action elements, which would work well in miniature, and which (if any) should be computer generated.

- **Visual Effects Creative Director**
  
VFX Creative Directors are very much like Production Designers, except they direct and supervise the creative side of the film's visual effects. The position is particularly in demand for films with massive amounts of computer generated imagery and scenes.

- **Visual Effects Supervisor**
  
The Visual Effects Supervisor is in charge of the VFX crew, working with production and the film's Director to achieve the desired in-camera optical effects of the film.
• **Visual Effects Editor**

The Visual Effects Editor incorporates visual effects into the current cuts of live action sequences, producing multiple versions of each shot. Altered scenes are then evaluated by the Visual Effects Supervisor and Creative Director for aesthetic and technical direction, and by the Producers for review and final editing.

• **Compositor**

A Compositor is a Visual Effects Artist responsible for **compositing** images from different sources such as video, film, computer generated 3-D imagery, 2-D animations, matte paintings, photographs, and text.

• **Roto Painters**

Rotoscope Painters may **rotoscope** the footage, manually creating **mattes** for use in compositing. They may also paint visual information into or out of a scene, such as removing wires and rigs, logos, dust busting, scratch removal, etc.

• **Matte Painter**

Matte Painters draw/paint entire sets or extend portions of an existing set.

**PROPS**

• **Props Master**

The Property Master is in charge of finding and managing all the **props** that appear in the film. The Props Master usually has several assistants.

• **Propmaker**

The Propmaker, as the name implies, builds the props that are used for the film. Props Builders are often Technicians skilled in construction, plastics casting, machining, and electronics.

• **Weapons master**

The Weapons Master or **Armorer** is a specialized Prop Technician who deals with firearms. In most jurisdictions this requires special training and licenses.
ON-SET CREW DESCRIPTIONS:

DIRECTOR - communicates directly with the DP, 1st AD and Script Supervisor as to what his shooting (coverage) plan for each scene is. Deals with actors for performance; the DP for angles, coverage, lighting, style ideas; deals with Art Dept. and Costume Designer for all looks of film

DIRECTOR OF PHOTOGRAPHY - explains shot to operator; works with gaffer to achieve lighting style and consistency; is responsible, with Script Supervisor, for screen direction; and ultimately responsible for coverage achieved in each scene; is responsible to producer to work quickly and efficiently (in other words, within budgetary and time constraints)

OPERATOR - answers directly to DP but must also have a good rapport with Director and rest of crew … very "political" position and lots of room for creativity

1st A.c. - preps camera at rental house; works with the Camera Operator, sets up camera, lenses, rides focus, aperture, etc.; in charge of equipment orders and returns; runs rest of camera department

2nd A.c. - slates; may load if no 2nd 2nd; brings lenses to 1st, keeps equipment clean and nearby; camera reports; reads film for shipping

2nd 2nd - responsible for clean camera van, keeping stock inventory, clean magazines, time cards for camera crew

GAFFER - works with DP on all interior/exterior lighting in film; is in charge of electric/grip crew (leadership position) works with best boy for ordering all special lighting equipment on daily basis; position very much depends on how DP likes to work…can be very creative or just facilitator

BEST BOY ELECTRIC - checks out all electric needs at each location, deals with generator and all electricity; is in charge of truck, orders expendables, deals with time sheets for entire electric/grip crew

ELECTRIC - runs cable; supervises taco cart, gels, etc., works with gaffer on set to create lighting set-up (sets up all lights, barn doors, scrims, light stands; puts gels in filter holders that go into lights

KEY GRIP - in charge of dolly, all rigging, grip department; leads in setting up of all C stand, flags, nets; works with sand bags, apple boxes, safety all lights

BEST BOY GRIP - physically sets C stands with flags, nets, sand bags, brings apple boxes and all grip equipment to set GRIP - unloads truck and keeps equipment organized and accounted for, helps handling big lighting equipment with electric crew (12Ks, high-rollers, etc.)

1st ASSISTANT DIRECTOR - runs the set; works in tandem with Director, answers to Producer, breaks down script and sets up shooting schedule; works with Director and DP on set to facilitate all areas of production on daily basis; leads team that manages all stages of production (actors’ calls, meals, union penalties, medical emergencies, location problems and requirements)

2nd AD - liaison between 1st AD and all off-set activity; gives actors’ calls, times sheets, does call-sheet for 1st’s approval SCRIPT SUPERVISOR - breaks down initial script in terms of scenes, screen days, time of day; times script, works with Director and DP on set, notes to EDITOR

The PRODUCTION DESIGNER has been working with the ART DIRECTOR, SET DRESSER, PROP Department, etc., and is usually much ahead of the PRODUCTION CREW. The PRODUCTION CREW usually relates to an ON SET DRESSER and ON SET PROPERTY MASTER. It is important to respect the intricate work that has gone on to prior to the PRODUCTION CREW's arrival and learn to work closely with the SET DRESSER and INSIDE PROPS.
Great film Books

**Special Effects – Wire Tape and Rubber Band Style** L.B. Abbott, ASC

**Painting with Light** John Alton

**The Light on Her Face** Joseph Walker, ASC and Juanita Walker

**The Visual Story, 2nd Edition: Creating the Visual Structure of Film, TV and Digital Media** Bruce Block

**Special Effects** Jake Hamilton

**Secrets of Hollywood Special Effects** Robert McCarthy

**Special Effects** Ron Miller

**Fantastic Flesh** Kevin Van Hook

**The Secret Science Behind Movie Stunts & Special Effects** Steve Wolf

**The Prop Builder’s Molding & Casting Handbook** James Thurston

**Creating Special Effects for TV and Video, Third Edition (Media Manuals)** Bernard Willkie

**Movie Stunts and Special Effects (Making Movies)** Geoffrey M. Horn

**The Visual Effects Arsenal: VFX Solutions for the Independent Filmmaker** Bill Byrne

**The Five C’s of Cinematography: Motion Picture Filming Techniques** Joseph V. Mascelli

**Setting up Your Scenes: The Inner Workings of Great Film** Richard D. Pepperman

**Color Correction Handbook: Professional Techniques for Video and Cinema** Alexis Van Hurkman

**DSLR Cinema: Crafting the Film Look with Video** Lancaster Kurt

**Stage Combat: Fisticuffs, Stunts, and Swordplay for Theater and Film** Jenn Boughn

**Stage Rigging Handbook** Jay O. Glerum

**Designing Movie Creatures and Characters: Behind the scenes with the movie masters** Richard Rickitt

**The Animator’s Survival Kit, Expanded Edition: A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion and Internet Animators** Richard Williams

**Hurt ‘Em Reel Good: A Quick Reference For Out Of Kit Make-up Effects** Randy Daudlin

**Creating Motion Graphics with after effects** Trish & Chris Meyer

**SHOWSTOPPERS Busby Berkeley and the Tradition of Spectacle** Martin Rubin

**Glorious Technicolor** forward by Martin Scorsese

**Hollywood** Dominique Lebrun

**Placing Shadows, Lighting Techniques for Video Production** Chuck Gloman, Tom Letourneau

**Pyrotechnics** George W. Weingart

**Digital Filmmaking** Thomas A. Ohanian, Michael E.Vincent J-R Kehoe

**The Complete book of color** Suzy Chiazzari

**Lighting for Location Motion Pictures** Alan J. Ritsko

**Film Lighting – Talks with Hollywood’s Cinematographers and Gaffers** Kris Malkiewicz

**Make-up Designory’s Character Make-up** Paul Thompson

**Understanding Photography** Carl Shipman

**Cinematography Theory and Practice** Blain Brown

**Special Effects in Motion Pictures** Frank P. Clark

**Filming The Fantastic, a guide to visual effects cinematography** Mark Sawicki

**Changing Direction** Lenore DeKoven

**Tim Burton’s Nightmare Before Christmas** Frank Thompson

**Life Classic Photographs** John Loengard

**Getting Started in Film** Emily Laskin

**The Bare Bones Camera Course for Film and Video** Tom Schroeppe