

*Responding to a critical need  
in emergency response*

# **Emergency Response Aviation Safety Management Certificate Program**

Fall/Winter 2008-2009

*Based at Sacramento,  
California's McClellan Park*

[www.extension.ucdavis.edu/aviation](http://www.extension.ucdavis.edu/aviation)



# **UC DAVIS EXTENSION**

CONTINUING AND PROFESSIONAL EDUCATION

# Emergency Response Aviation Safety Management Certificate Program

Concerns about the structural health of U.S. public use firefighting aircraft have led to the development of a six-course **Emergency Response Aviation Safety Management Certificate Program** to educate emergency response aviation personnel about the critical factors involved in aircraft health management, as well as the decision-making processes and communication skills and technology required for coordination and cooperation during emergency response incidents.

This certificate program focuses on aircraft health monitoring and was developed by a consortium that combines the expertise and resources of NASA, the University of California, Davis College of Engineering, the U.S. Forest Service, UC Davis Extension and private corporations. All courses are held at the U.S. Forest Service Wildland Fire Training and Conference Center at McClellan Park, Sacramento. The McClellan facility is a unique resource that contains large aircraft hangars, structural and repair shops, a 10-megawatt nuclear reactor, a robotic X-ray system and ultrasonic laser equipment. Fire and emergency response aviation simulators are also available on site.

## Program objectives and requirements

Through the values of leadership, teamwork and ethics, learn current and emerging aviation safety management principles and technologies. Students who successfully complete the six-course certificate program gain the knowledge needed to create an aviation environment that encourages crew member and management involvement leading to safe aviation practices and operations.

## Who benefits

- Aviation safety officers and emergency services pilots
- Forest firefighter and border patrol aviators
- Medical-air transport personnel
- Law enforcement and homeland security aviators
- Aviation specialists, consultants and contracting officers
- Those involved with the retrofitting, operation and maintenance of aging aircraft
- Anyone involved in the field of aviation emergency response

**ENROLL**

[www.extension.ucdavis.edu/aviation](http://www.extension.ucdavis.edu/aviation)

**ONLINE**

## This fall we are offering three certificate program courses:

- Aircraft Health Management
- Communications: Program Management
- Communications: Operations Management

*Enroll in the entire fall program and save \$885!*

- **9 meetings.**
- **Oct. 28-Nov. 7:** Tues.-Fri., 8 a.m.-4:30 p.m. (except Fri., Nov. 7: 8 a.m.-1 p.m.)
- **Location for all courses is McClellan, Calif.:** U.S.F.S. Wildland Fire Conference Center, 3237 Peacekeeper Way.
- **\$3,450. Tuition for three certificate courses.** Save \$885 when you enroll in all three fall Emergency Response Aviation Safety Management certificate courses at once. **Enroll in section 082ENG420.**

## This winter we are offering three certificate program courses:

- Human Factors and Operational Risk Management
- Safety Program Management
- Aviation Leadership

*Enroll in the entire winter program and save \$1,535!*

- **12 meetings.**
- **Jan. 27-30 & Feb. 2-5, 9-12:** Tues.-Fri., 8 a.m.-4:30 p.m.
- **Location for all courses is McClellan, Calif.:** U.S.F.S. Wildland Fire Conference Center, 3237 Peacekeeper Way.
- **\$4,450. Tuition for three certificate courses.** Save \$1,535 when you enroll in all three winter Emergency Response Aviation Safety Management certificate courses at once. **Enroll in section 083ENG420.**



McClellan's state-of-the-art aviation simulation center

## FALL 2008 COURSES (OCTOBER-NOVEMBER)

Monday

Tuesday

Wednesday

Thursday

Friday

Oct. 28-31: Aviation Health Management

Nov. 3 & 4: Communications:  
Program Management

Nov. 5-7: Communications: Operations Management

### Aircraft Health Management

3 quarter units academic credit, X435.1.

Discover the full range of issues affecting and supporting aircraft health management. Gain insights into the critical features facing aging aircraft—both fixed-wing and rotorcraft—particularly aircraft engaged in emergency response aviation. Through academic and field-related topics, examine the function of airframe structural systems, failure mechanisms of airframe materials, non-destructive inspection methodologies and flight-monitoring and instrumentation. Learn about FAA-certification requirements related to maintenance and operations as well as maintenance program strategies and aircraft modification and re-engineering.

Guest lecturers join the instructor to provide additional depth to course material.

**MICHAEL HILL**, Ph.D., is associate professor of Mechanical and Aeronautical Engineering at UC Davis and founder of Hill Engineering, LLC. His current research focuses on the performance of metallic structures, particularly the measurement of residual stress and fatigue, and the life improvement of aircraft with advanced surface treatments such as laser peening. Hill has been instrumental in developing the application-focused research and development initiatives in aging aircraft conducted at McClellan Park, which include advanced methods for non-destructive inspection, health monitoring and aircraft structures.

- **4 meetings.**
- **Oct. 28-31:** Tues.-Fri., 8 a.m.-4:30 p.m.
- **McClellan, Calif.:** U.S.F.S. Wildland Fire Conference Center, 3237 Peacekeeper Way.
- **\$1,745** (\$1,995 if postmarked after 10/07/2008). **Enroll in section 082ENG400.**

### Communications: Program Management

1.5 quarter units academic credit, X435.4.

Efficient communication is a key component in aviation management. Learn techniques to identify and evaluate communication issues and options required to develop effective communication strategies. Enhance communication and cooperation skills within your emergency aviation service organization. Discover methods of communicating major policy decisions during frontline, emergency situations and to incorporate effective communication techniques into your own communication style based on models for efficient/inefficient, effective/ineffective and professional/unprofessional communication usage.

Learn to identify situations in which effective communication is critical and to distinguish the strengths and weaknesses of various styles of communication. Recognize opportunities to strengthen your own communication style and improve your understanding of personality and behavioral styles through communication analysis.

**Prerequisite:** A minimum of two years experience in an aviation-related field including but not limited to operations, maintenance, contract administration or as a flight or air crew member, pilot, ground operator or as someone involved with regulatory and compliance issues is recommended.

**LINDA TAVLIN** has been an aviation communication consultant since 1989, specializing in safety, accident investigation, flight standards, manufacturing, security, air traffic and environmental issues. Her expertise has been sought by foreign carriers, including Saudi Arabian Airlines following their 747 crash in New Delhi in 1996. Tavlin has conducted courses at the Federal Aviation Administration's Aeronautical Academy and teaches in the accident investigation program at the University of Southern California. Her clients include regulatory and investigative agencies all over the world, as well as carriers and manufacturers.

- **2 meetings.**
- **Nov. 3 & 4:** Mon. & Tues., 8 a.m.-4:30 p.m.
- **McClellan, Calif.:** U.S.F.S. Wildland Fire Conference Center, 3237 Peacekeeper Way.
- **\$895** (\$995 if postmarked after 10/13/2008). **Enroll in section 082ENG403.**

## Communications: Operations Management

2 quarter units academic credit, X435.5.

Learn to develop and enhance your ability to become a strong, effective communicator in the high-pressure environment of emergency response aviation. Clear, concise and effective communication is essential to efficient, safe and successful emergency aviation operations. Explore practical emergency situation communications management. Examine functional inter-agency/interoperability issues, new communication technology and interpersonal and organizational behavior. Improve your communication processes and problem solving, group dynamics, workload management and situational awareness skills. Discover strategies and techniques for emergency management planning and information dissemination with the public and media.

Case studies detail communication failures that became causal factors in aircraft incidents and mishaps during emergency operations. Develop procedures for your organization in accordance with the most current best established practices.

Guest lecturers join the instructor to provide additional depth to course materials.

**ERICH SCHWAB** is a fire captain th the Nevada-Yuba-Placer unit of Cal Fire. He has more than 18 years of experience in wildland fire operations, working on engine modules, hotshot crews and heli-tack. Schwab is currently Air Tactical Group supervisor and Air Operations branch director on California IMT 1. He has academic degrees in Construction Management and Fire Science, as well as a certificate in Emergency Response Aviation Safety Management from UC Davis Extension.

- **3 meetings.**
- **Nov. 5-7:** Wed. & Thurs., 8 a.m.-4:30 p.m.; Fri., 8 a.m.-1 p.m.
- **McClellan, Calif.:** U.S.F.S. Wildland Fire Conference Center, 3237 Peacekeeper Way.
- **\$1,195** (\$1,345 if postmarked after 10/15/2008). **Enroll in section 082ENG404.**

*Enroll in all three fall courses for just \$3,450. Enroll in section 082ENG420.*

WINTER 2009 COURSES (JANUARY-FEBRUARY)				
Monday	Tuesday	Wednesday	Thursday	Friday
	Jan. 27-30: Human Factors and Operational Risk Management			
	Feb. 2-5: Safety Program Management			Feb. 6: NO CLASS
	Feb. 9-12: Aviation Leadership			

## Human Factors and Operational Risk Management

3 quarter units academic credit, X435.8.

Examine the influence of human behavior on the safety of emergency response aviation operations and the knowledge, skills and abilities necessary to identify, assess and eliminate or reduce risk. Explore the human and operational factors that affect decision-making processes during critical aviation operations, using case studies that highlight various elements of each. Gain an understanding of how to reduce or eliminate aircraft accidents, incidents and mishaps due to poor or ineffective operational risk decisions as well as how to develop the consistent risk management skills and positive attitudes that safe aviation operations require.

Guest lecturers join the instructor to provide additional depth to course materials.

**Prerequisite:** A minimum of two years of experience in an aviation-related field, i.e., operations, maintenance, contract administration or as a flight or air crew member is recommended.

**IVAN PUPULIDY** is the Human Factors and Doctrine specialist for the U.S. Forest Service in Boise, Idaho, and has more than 13 years of experience as a lead pilot and six years as an aviation safety manager for low altitude missions. His expertise includes ground and aviation firefighting tactics and procedures that support ground operations. Pupulidy is also an aircraft commander in the U.S.A.F. Reserves where he pilots H-130 Hercules aircraft and is a qualified Modular Airborne Fire Fighting System pilot.

- **4 meetings.**
- **Jan. 27-30:** Tues.-Fri. 8 a.m.-4:30 p.m.
- **McClellan, Calif.:** U.S.F.S. Wildland Fire Conference Center, 3237 Peacekeeper Way.
- **\$1,745** (\$1,995 if postmarked after 01/06/2009). **Enroll in section 083ENG401.**

## Safety Program Management

3 quarter units academic credit, X435.7.

Learn to create, maintain and continuously improve aviation safety programs. Discover the most current best practices and theoretical models of excellence that readily transfer to the workplace. Examine the significance of culture and, working within the existing cultural framework of your organization, develop a program with a regulatory compliant infrastructure. Your own course project will help to develop your incident tracking system as well as your investigative skills.

Explore safety training modules that emphasize how the relevance and style of training is vital to effectiveness. Experts bring a spectrum of experience, options and opinions to your safety program management.

Guest lecturers join the instructor to provide additional depth to course materials.

**JILL MCCURDY**, M.S., began her career as a wildland firefighter, working with both engine and heli-tack crew personnel. Since then, her broad experience has included many positions in fire and aviation management, ranging from being a helicopter operations specialist and rappel spotter to heli-base manager and air operations branch director. McCurdy has also chaired the National Interagency Aerial Ignition Working Group and co-chaired the National Interagency Helicopter Rappel Working Group.

- **4 meetings.**
- **Feb. 2-5:** Mon.-Thurs., 8 a.m.-4:30 p.m.
- **McClellan, Calif.:** U.S.F.S. Wildland Fire Conference Center, 3237 Peacekeeper Way.
- **\$1,745** (\$1,995 if postmarked after 01/12/2009). **Enroll in section 083ENG405.**

## Aviation Leadership

3 quarter units academic credit, X435.6.

Gain a solid framework of effective and practical leadership skills with a special emphasis on the emergency services aviation industry. Discover the importance of performance standards, values and ethics, and learn techniques and proven methods for building trust and integrity throughout your organization.

Situational leadership techniques center on managing unanticipated situations, assessing capabilities for assured performance, and decision-making techniques for high stress, time-critical environments. Learn to manage people effectively and resolve internal and external conflicts. Case studies highlight key aspects of aviation psychology, personality types and basic human factors affecting performance.

Guest lecturers join the instructor to provide additional depth to course materials.

**RON HANKS** is the National Aviation Safety and Training manager for the U.S. Forest Service in Boise, Idaho. Hanks has been involved in wildland fire operations for more than 30 years and with emergency response aviation operations for more than 20 years. He was formerly a U.S. Navy aviator and an air operations branch director in Alaska. He maintains credentials as an airline transport pilot, flight instructor and commercial helicopter pilot.

- **4 meetings.**
- **Feb. 9-12:** Mon., 1-6 p.m.; Tues. & Wed., 8 a.m.-6 p.m.; Thurs., 8 a.m.-4 p.m.
- **McClellan, Calif.:** U.S.F.S. Wildland Fire Conference Center, 3237 Peacekeeper Way.
- **\$1,745** (\$1,995 if postmarked after 01/19/2009). **Enroll in section 083ENG406.**

**Enroll in all three winter courses for just \$4,450. Enroll in section 083ENG420.**

## Certificate Program in Emergency Response Aviation Safety Management

QUARTERLY SCHEDULE OF COURSES			
REQUIRED COURSES (15.5 units)	# Units	FALL	WINTER
Aircraft Health Management	3	■	
Safety Program Management	3		■
Human Factors and Operational Risk Management	3		■
Aviation Leadership	3		■
Communications: Operations Management	2	■	
Communications: Program Management	1.5	■	

For more information, call (800) 752-0881 or visit our Web site at [www.extension.ucdavis.edu/certificates](http://www.extension.ucdavis.edu/certificates)

### Certificate program advisory board

- William R. Broadwell, Assistant Executive Director, American Helicopter Services and Aerial Firefighting Industry Association
- Dennis Brown, Regional Aviation Safety Officer, U.S. Forest Service
- Mike Hill, Associate Professor, Mechanical and Aeronautical Engineering, UC Davis
- Dennis Hulbert, Regional Aviation Officer, U.S. Forest Service
- Bill Larsen, FAA/NASA (retired)
- Fred Leonelli, President, FJ Leonelli Group, Inc.
- David McGee, Executive Director, Technology Transfer Center, Office of Research, UC Davis

### Enrollment information

For complete enrollment information, please look on the back cover of this brochure. You may register by mail, phone at (800) 752-0881, online at [www.extension.ucdavis.edu/aviation](http://www.extension.ucdavis.edu/aviation), in person or by fax at (530) 757-8558. You may also register and pay your fees at the first class meeting if space is available. If you plan to enroll at the door, please call UC Davis Extension first to check on space availability.

Payment is due at the time of enrollment. There is a \$25 fee for returned checks. An enrollment confirmation is sent to each enrollee with email on file. It is not required for admission to class. If you have any questions or comments, please call (800) 752-0881.

### Housing options

Please note that numerous housing options are available, including use of McClellan Park's barracks at \$50 per night. For more information, visit their Web site at [www.fs.fed.us/r5/fire/mcclellan](http://www.fs.fed.us/r5/fire/mcclellan). Click on "WFTC Dormitory Request." For additional hotel information, click on "Hotel and Motel Lodging."

### Group discounts

Organizations enrolling three or more people in the same course may do so for 10 percent off each enrollment. All enrollments must be submitted at the same time and fees paid with one check, credit card or purchase order.

### Financial assistance

Several financial assistance programs are available for UC Davis Extension students. For your convenience, we have included information on two of many independent loan providers, Citibank CitiAssist and TERI on our Web site at [http://extension.ucdavis.edu/student\\_services/resources/loan\\_info.asp](http://extension.ucdavis.edu/student_services/resources/loan_info.asp). UC Davis Extension is not involved in the loan approval process, nor do we endorse any specific provider.

### If your plans change

Refunds, less a \$100 processing fee, will be granted if the request is received 14 calendar days before the course begins. At that time, you can also discuss transferring your enrollment to another program or sending a substitute. Requests for withdrawal without a refund must be received before the last meeting of the course. Requests for withdrawals or refunds may be made by phone, fax or in writing. Please include the student's name, course title and course section number. For information about other alternatives, call UC Davis Extension at (800) 752-0881.

UC Davis Extension reserves the right to cancel or reschedule courses and to change instructors. If a course is canceled or rescheduled, you may request an official transfer to another course or a refund. Every reasonable effort will be made to notify enrollees of changes or cancellations.

## ENROLLING IS EASY!

**BY MAIL** complete this form and send it to the Registration Office, UC Davis Extension, University of California, 1333 Research Park Drive, Davis, CA 95618-4852.

**BY PHONE** call toll free (800) 752-0881. From Davis or Woodland call 757-8777.  
Please have your Visa, MasterCard, American Express or Discover account number handy.

**BY FAX** to (530) 757-9536. Be sure to include a complete enrollment form along with credit card information or a company purchase order.  
**IN PERSON** at our Registration Office, 8:30 a.m.-4:30 p.m., 1333 Research Park Drive, Davis.  
**ONLINE** at [www.extension.ucdavis.edu/aviation](http://www.extension.ucdavis.edu/aviation).

### 1. Yes! Please enroll me in the following courses:

Title	Section number	Fee
		\$
Title	Section number	Fee
		\$
Title	Section number	Fee
		\$
Title	Section number	Fee
		\$

### 2. Customer information:

Mr.  Mrs.  Ms.

Name

Current position/job title

Social Security number\*

**IMPORTANT:** Where would you like to receive mail?  work  home (Please fill in all blanks below.)

Address

City

State

Zip

Employer name

( )

( )

Daytime telephone

Evening telephone

Email

If you do not wish to receive periodic email about UC Davis Extension courses and programs in your area of interest, please check this box .

Please add [info@unexmail.ucdavis.edu](mailto:info@unexmail.ucdavis.edu) to your address book or safe list to ensure that our email messages are delivered properly.

\*UC Davis Extension is required by federal law to report your Social Security Number (SSN) and other pertinent information to the Internal Revenue Service pursuant to the reporting requirements imposed by the Taxpayer Relief Act of 1997. UC Davis Extension also will use the SSN you provide to verify your identity. SSN disclosure is mandatory. This notification is provided to you as required by the Federal Privacy Act of 1974.

### 3. Payment information:

- Enclosed is a check payable to UC Regents.
- Enclosed is a company purchase order (a complete enrollment form, or all information requested on the enrollment form, must be included with purchase orders).
- Please charge Visa/MasterCard/American Express/Discover:

Account number

Expires

Name of cardholder

Authorized signature

082176

Credit card verification number: \_\_\_\_\_. The CCV is the last three digits of the number printed on the back of your credit card (for American Express it is the last four digits of the number printed on the front of the card).

### 4. Important! Key code: \_\_\_\_\_

For efficient processing of your enrollment, please fill in this code as it appears on your mailing label, whether or not it is addressed to you. If you enroll by phone, please be prepared to provide this code to your customer service representative. Also include it on all purchase orders.

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1333 Research Park Drive  
Davis, CA 95618-4852

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Key Code

0 8 2 1 7 6 - Z Z