

# Advanced Critical Care Therapeutics

Creighton  
UNIVERSITY

School of Pharmacy  
and Health Professions

DESIGNED FOR: Pharmacists | PROGRAM AVAILABILITY: Online

## Online Continuing Education Program for Pharmacist

The Advanced Critical Care Therapeutic course provides in-depth advanced instruction concerning the pharmacotherapeutic management of commonly encountered critical care diseases. Emphasis is placed on the efficacy, safety, and comparative value of drug therapy in this highly specialized practice area. Didactic knowledge of physiology, pharmacology and drug therapy management is applied to disease states specific to this population. Didactic instruction is combined with practice case studies and interactive discussions concerning critical care pharmacy-related issues. Participants may download material to view as a podcast on their computer or handheld device.

The program is delivered to participants using a distance education platform. Didactic lectures are electronically captured and packaged with written materials (references, case studies, self-evaluation quizzes) covering a total of 16 critical care topics.

This program is designed to be offered over a typical university semester, but can be expanded to be taken over a 12-month period. The course will take approximately 60 hours to complete.

### COURSE OBJECTIVES

- Describe the pathophysiology and clinical course of the major disease processes.
- Design and/or evaluate a specific pharmaceutical care plan for the management of major disease processes and provide alternative treatment measures based upon clinical and demographic characteristics.
- Discuss risk to benefit ratios of various therapeutic modalities.
- State desired endpoints of therapy and identify appropriate monitoring parameters.
- Identify potential drug-induced problems and adverse effects and their incidence, significance, and management.
- Develop an appreciation for the interrelationship of multiple medical problems—in the pharmaceutical care of the patient.

### COURSE MODULES

- Sedation, Neuromuscular Blockade and Pain Management
- Fluids, Electrolytes, and Acid Base Disorders
- Acute Coronary Syndromes
- Cardiac Arrhythmias
- Management of Acute Decompensated Heart Failure
- Hypertension in the Critical Care Setting
- Sepsis
- Pneumonias
- Venous Thromboembolism Prophylaxis and Treatment
- Endocrine Emergencies
- Principles of Ventilation
- Status Epilepticus/Status Asthmaticus
- Management of Bleeding in Critically Ill
- Acute Kidney Injury and Medication Dosing in Renal Dysfunction
- Poisoning and Overdose

### REGISTER ONLINE

[spahp.creighton.edu/ce](http://spahp.creighton.edu/ce)

### REGISTRATION\*

§375 Registration fee

§295 SPAHP Alumni Discounted fee

§265 Certificate only—NO CE

*\*Processing fees will apply.*

### REGISTRATION QUESTIONS

If you have registration questions, please call the SPAHP Office of Continuing Education at **402.280.2950**. Questions may also be sent to [ce@creighton.edu](mailto:ce@creighton.edu)

### CANCELLATIONS AND REFUNDS

Registrations must be canceled in writing or via email. No refunds after 30 days from the date of registration. In all other cases, a refund of registration fees will be made less a §25 administrative fee.

### PROGRAM FACULTY

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## ACTIVITIES AND EDUCATION CREDITS

### Accreditation Statement

In support of improving patient care, Creighton University Health Sciences Continuing Education is accredited by the American Nurses Credentialing Center (ANCC), the Accreditation Council for Pharmacy Education (ACPE), and the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing education for the health care team.



JOINTLY ACCREDITED PROVIDER  
INTERPROFESSIONAL CONTINUING EDUCATION

### Continuing Education Credit

You need to view the entire program to receive credit. To receive credit, you will need to receive 75 percent on the quiz and case study at the end of each module. Upon successful completion of all modules, and completion of the evaluation, a certificate will be available for you to print. You will have three attempts to complete each quiz.

### Pharmacy Credit

Creighton University Health Sciences Continuing Education (HSCE) is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education. This enduring material, CED 701 *Advanced Critical Care Therapeutics* is assigned Universal Activity Number (UAN)# 0839-0000-17-079-H01 and accredited for 27.0 hour(s) for completion of all CE sessions. Term of approval is from this date on August 21, 2017 until August 21, 2020. The CED 701 *Advanced Critical Care Therapeutics* is a knowledge-based CE activity.

### Category 1

Creighton University Health Sciences Continuing Education designates this enduring material for a maximum of 27 *AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AAPA accepts AMA category 1 credit for the PRA from organizations accredited by ACCME.

### Nurse CE

Creighton University Health Sciences Continuing Education designates this activity for 27.0 contact hours for nurses. Nurses should claim only the credit commensurate with the extent of their participation in the activity.

Nurses licensed in Iowa and California: This activity was planned and developed in accordance with the continuing education standards of the American Nurses Credentialing Center (ANCC). The Iowa Board of Nursing and the California Board of Nursing will honor ANCC continuing education credits for face-to-face programs held outside Iowa and California, or for ANCC-approved online recorded courses taken in a self-study format.

### Disclosures

As a sponsor accredited by the ACCME, it is the policy of Creighton University Health Sciences Continuing Education to require the disclosure of anyone who is in a position to control the content of an educational activity. All relevant financial relationships with any commercial interests and/or manufacturers must be disclosed to participants at the beginning of each activity. Each faculty and planning committee member have indicated that they have no financial affiliations that is a conflict of interest.

### Resolution of Conflict of Interest

Creighton University Health Sciences Continuing Education has implemented a process to resolve any potential conflicts of interest for each continuing education activity in order to help ensure content objectivity, independence, fair balance, and the content that is aligned with the interest of the public. This review is done by committee and/or peer review.

### Continuing Education Planning Committee

Kimberley Hallcock, BA; Samantha Harter, MBA; Daniel E. Hilleman, PharmD, FCCP;  
Stacey Dull, PharmD; Mark Malesker, PharmD, FCCP, FASHP, BCPS; Colin Dworak, BSBA

### Privacy and Confidentiality Policy

We respect, and are committed to protecting, your privacy. We will not sell your personally identifiable information to anyone.

### Financial Support

This program is not supported by any commercial or financial interest.

## TECHNICAL REQUIREMENTS

The following minimum requirements are to assist students, faculty and staff with computer and internet requirements and aid them when using any computer to access the University's academic technologies.

### Hardware

- **Device:** Windows PC or Apple Mac computer  
*(NOTE: Visiting students are required to use a Windows PC with 8.1, 10 and Office 2013)*
- **Operating System:** Windows 8.1, 10 and Office 2013; Mac OSX 10.7, 10.8, 10.9
- **Processor:** Intel i-Series (i3, i5, i7) or equivalent (Windows/Mac)
- **Memory:** Minimum 4 GB RAM
- **Hard Disk Space:** 250 GB
- **Speakers:** Internal or external
- **Screen resolution:** 1024x768 or higher

### Internet requirements

All students are required to purchase their own dedicated home high-speed internet service at a *minimal required speed of 3 MBps upload and 3 MBps download* for simultaneous screen sharing, video, and audio conferencing. To test the connectivity level in your home, go to [speedtest.net](http://speedtest.net)

### Browser requirements

Students are highly encouraged to have at least two of the following web browsers (with the latest version installed).

- **Internet Explorer/Edge** (PC only)
- **Safari** (MAC only)
- **Mozilla Firefox**
- **Google Chrome**

### Required plug-ins

The latest version is required.  
Adobe Acrobat Reader: [adobe.com](http://adobe.com)  
Adobe Flash Player: [adobe.com](http://adobe.com)  
Java: [java.com](http://java.com)