



# New Academic Program Workflow Form

## General

**Proposed Name: Paramedicine**

Transaction Nbr: 00000000000215

Plan Type: Specialization

Academic Career: Undergraduate

Degree Offered: Undergraduate Certificate

Do you want to offer a minor? N

Anticipated 1st Admission Term: Sum 2024

## Details

Department(s):

### MDTC

DEPTMNT ID	DEPARTMENT NAME	HOST
0750	Emergency Medicine	Y

Campus(es):

### MAIN

LOCATION	DESCRIPTION
TUCSON	Tucson

**Admission application terms for this plan:** Spring: N Summer: Y Fall: N

**Plan admission types:**

Freshman: N Transfer: Y Readmit: Y Graduate: N

Non Degree Certificate (UCRT only): N

Other (For Community Campus specifics): N

**Plan Taxonomy:** 51.0904, Emergency Medical Technology/Technician (EMT Paramedic).

Program Length Type: Program Length Value: 0.00

Report as NSC Program:

SULA Special Program:

**Print Option:**

Diploma: Y Certificate in Paramedicine

Transcript: Y Certificate in Paramedicine

**Conditions for Admission/Declaration for this Major:**

EMT certification, cumulative 2.0 GPA minimum, Preferred: PSIO 201 & 202.  
Other options: PSIO 201 & MCB 181R or ECOL182; PSIO 380 & MCB 181R or ECOL182

**Requirements for Accreditation:**

The Paramedic program must be accredited and is in process already. The accrediting organization is CAAHEP, the Commission on Accreditation of Allied Health Education Programs. Initial accreditation occurs prior to the first cohort of students through the program and full accreditation occurs in the 2nd year of operation.

**Program Comparisons**

**University Appropriateness**

This program will help students along their Wildcat Journey and create new pathways to health professions currently unattainable at The University of Arizona. The return of a paramedic program gives students hireable knowledge, skills, and certification for day 1 after graduation. In some instances, students will be able to work part-time while still attending the University.

The Bachelor of Science in Emergency Medical Services requires NREMT certification as a paramedic and with this returning program, students bound to campus can earn this certification and degree. For some it will be experience-based leverage for graduate school as a MD, PA, Nurse, or other healthcare profession.

Pathways to healthcare professions and future graduate programs are both strategic priorities of the College of Medicine.

**Arizona University System**

NBR	PROGRAM	DEGREE	#STDNTS	LOCATION	ACCRDT
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**Peer Comparison**

Our program is appropriately aligned with national education standards. As far as

comparative BS in EMS peer, the University of Arizona has the highest reputation among them. Simply put, being a University of Arizona certificate and degree program is a differentiator. Our Banner Emergency Department physicians and certified paramedic health educators will be teaching our courses.

Our target population is primarily the students enrolled at the University of Arizona that are scholarship-bound to Main campus. This creates a pathway to our BS in Emergency Medical Services that otherwise relied on previous paramedic certification in order to join the major. Student populations we have explored are scholarship-bound students, student-athletes, on-campus Veterans and active duty/reserve, national guard, and QTR students. A population still to explore is ROTC students and whether or not it would help their pending military obligations in any way.

## **Resources**

### **Library**

Acquisitions Needed:

The text will be 1 textbook for the entire program with additional texts required for certain courses within the program. Many students opt to purchase paper versions of the book so they have them for reference for the 2 year recertification requirement. We will work with Adoptions on this.

### **Physical Facilities & Equipment**

Existing Physical Facilities:

A classroom in Health Sciences is needed and will be reserved in the College of Medicine when first possible in June 2024.

Additional Facilities Required & Anticipated:

None anticipated

### **Other Support**

Other Support Currently Available:

Maintaining clinical agreement with Banner Health is critical to our operations of the course and the certificate proposal. Additional agreements with various Fire Departments for field experiences is also in process and we have been corresponding with the appropriate legal and contracts contacts.

Other Support Needed over the Next Three Years:

Additional health educators may be required. They are paid for the hours they work and not benefits eligible. These hours are calculated as part of the budget. The larger the pool of health educators, the better our program will be so that students learn from a variety of different perspectives.

## Comments During Approval Process

2/1/2024 6:05 PM

JGAITHER

Comments
Approved.

4/18/2024 4:54 PM

MELANIECMADDEN

Comments
Approved.

4/19/2024 10:30 AM

DHERRING

Comments
Approved.



## NEW CERTIFICATE PROPOSAL

### I. CERTIFICATE DESCRIPTION

The Paramedic certificate program is designed for students wanting to expand their EMT certification into a higher-level professional certification. Students will take the necessary coursework and spend the required field time to become eligible for the NREMT Paramedic certification exam upon completion of this program. Most of the course material will emphasize building theoretical use of paramedic level skills. Students will then supplement course material by applying learning in various settings to deliver care with healthcare professionals.

### II. NEED FOR THE CERTIFICATE/JUSTIFICATION

Paramedic certification is a requirement of the Bachelor’s of Science in Emergency Medical Services. Currently there is no UA option for students to earn paramedic certification. To be eligible to graduate with the BS in EMS, students are currently earning this certification through Arizona community colleges or independent training agencies. Students who complete the paramedic program at UA are not obligated to complete the BS in EMS; they will earn the UA certificate regardless of future professional certification.

Paramedics are in great need within Arizona and nationally. In Arizona alone approximately 1,100 new paramedics are expected to be needed by 2032 due to growth, transfers, and exits in the industry. 2,396 total paramedics are expected to be needed in Arizona by 2032. National numbers suggest 5% net growth until 2032, needing 14,600 new paramedics and EMTs to meet the needs of our communities.

CIP code: 51.0904

### III. PROGRAM AFFILIATION

All courses required for this certificate program will be offered through the Undergraduate Degree Program in Emergency Medical Services (EMS) Division. These courses are offered on Main campus and based out of the College of Medicine, Department of Emergency Medicine. There is no collaboration across campus for coursework currently planned due to the specific nature of the material taught and the paramedic instructors for the program. The same instructors are currently teaching EMD 147 – Emergency Medical Technician.

### IV. CERTIFICATE REQUIREMENTS

#### UNDERGRADUATE CERTIFICATE

Minimum total units required	42
Minimum upper division units	34
Total transfer units that may apply to the certificate.	0
Pre-admissions expectations (i.e., academic training to be completed prior to admission)	NREMT certification at EMT level; 2.0 GPA; prefer PSIO 201 & 202 although will consider combination of science coursework (PSIO 201, PSIO 202, PSIO 380, MCB 181R, ECOL 182)

<p>Certificate requirements. List all certificate requirements including core and electives. Courses listed must include <b>course prefix, number, units, and title. Mark new coursework (New)</b>. Include any limits/restrictions needed. Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department.</p>	<p>EMD 201: Paramedicine Preparatory, 4 units (<b>New</b>)</p> <p>EMD 202: Pharmacology for Paramedicine, 2 units (<b>New</b>)</p> <p>EMD 203: Patient Assessment for Paramedicine, 2 units (<b>New</b>)</p> <p>EMD 301: Airway Management for Paramedicine, 3 units (<b>New</b>)</p> <p>EMD 302: Medical Pathophysiology for Paramedicine, 3 units (<b>New</b>)</p> <p>EMD 303: Trauma Pathophysiology for Paramedicine, 3 units (<b>New</b>)</p> <p>EMD 304: Cardiac Pathophysiology for Paramedicine, 3 units (<b>New</b>)</p> <p>EMD 341: Special Considerations for Paramedicine, 4 units (<b>New</b>)</p> <p>EMD 351: EMS Operations for Paramedicine, 2 units (<b>New</b>)</p> <p>EMD 493E: Hospital Internship for Paramedicine, 4 units (<b>New</b>)</p> <p>EMD 493F: Field Internship for Paramedicine I, 4 units (<b>New</b>)</p> <p>EMD 493G: Field Internship for Paramedicine II, 4 units (<b>New</b>)</p> <p>EMD 488: Paramedicine Capstone, 4 units (<b>New</b>)</p>
<p>Internship, practicum, applied course requirements (Yes/No). If yes, provide description.</p>	<p>Students complete 12 units of Internship units in line with the national paramedic curriculum requirements</p>
<p>Any double-dipping restrictions (Yes/No)? If yes, provide description.</p>	<p>No</p>
<p>Additional requirements (provide description)</p>	

V. **CURRENT COURSES**

There are no current courses to list for this certificate. All requested courses come from our department and are appropriately funded and supported by the Department of Emergency Medicine.

VI. **Learning Outcomes and Curriculum -**

**Learning Outcomes**

<p><b>Learning Outcome #1: Explain the responsibilities of a paramedic in functional, legal, ethical contexts</b></p>
<p>Concepts: Role of a paramedic; legal and ethical responsibilities of a paramedic</p>
<p>Competencies: Know what to do in situations when a paramedic is called to act; abide within the ethical standards and legal obligations of practicing as a paramedic.</p>
<p><b>Learning Outcome #2: Use learned paramedic-level skills in the field in accordance with the appropriate situation.</b></p>
<p>Concepts: Medication administration, patient assessment tactics, cardiac arrest response tactics, trauma response tactics, medical response tactics, airway management tactics, EMS operations processes</p>

Competencies: Learn appropriate processes to assess patients, determine appropriate care procedures based on the situation, administer appropriate medications according to the 5 P's, and work within the appropriate process within the EMS system and standards of the responding agency.

**Curriculum Map**

	EMD 201	EMD 202	EMD 203	EMD 301	EMD 302	EMD 303	EMD 304	EMD 341	EMD 351	EMD 493E	EMD 493F	EMD 493G	EMD 488
LO #1: Explain the responsibilities of a paramedic in functional, legal, ethical contexts	I	R	R	R	R	R	R	R	I	R	R	M	M
LO #2: Use learned paramedic-level skills in the field in accordance with the appropriate situation.		I	I	I	I	I	I	I		R	R	M	M

*Explanation: The curriculum map lists the required courses for the program and indicates where each LO will be introduced (I), reinforced (R), and mastered (M). This is important to show that you are including adequate teaching of the skills and concepts to support the LOs. Each row (LO) should have at least one I, R, and M in it. Usually (but not always) there is more than one R. Usually (but not always) there is only one I and one M. Generally, Is come first, followed by Rs, and Ms are last. Each column (class) should have at least one letter in it, but not every box needs to be filled in.*

**VII. CONTACTS AND ADMINISTRATION**

**UNDERGRADUATE** (delete if n/a)

a. List the name and contact information for the primary point of contact for the certificate:

Steve Morrison  
smorriso@arizona.edu  
520-626-1187

b. List the name and contact information for the person or persons who will serve in the role of Director of Undergraduate Studies (DUS) for the certificate (this is not always the same as the DUS for affiliated programs or head of the managing academic unit.):

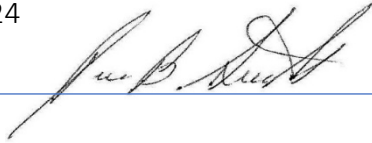
Tyrel Fisher, MD

c. If known, list the members of the certificate oversight committee for this certificate. Note: undergraduate certificate oversight committees shall consist of a minimum of 3 members, 2 of which are faculty and at least one of the 2 is participating faculty in the certificate program. The oversight committee is responsible for 1) qualifications of participating faculty, 2) coordination of admissions recommendations with the Office of Admissions, and 3) curricular changes:

Josh Gaither, MD  
Tyrel Fisher, MD  
Steve Morrison, MBA

**VIII. REQUIRED SIGNATURES**

Program Director/Main Proposer (print name and title): Joshua B. Gaither, EMS Degree Program Director  
Program Director/Main Proposer signature:  
Date: 01/30/2024



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Department Head (print name and title): Samuel M. Keim, Chair of the Department of Emergency Medicine  
Department Head's signature:  
Date: 01/30/2024



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Associate/Assistant Dean (print name): Tejal M. Parikh, Director, Comprehensive Education Core Associate Dean,  
College of Medicine-Tucson

Associate/Assistant Dean's signature:  
Date: 4/16/24



**Tejal M. Parikh, MD**

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Dean (print name): Michael M.I. Abecassis, MD, MBA, Iovanna C. Lopez Dean, College of Medicine – Tucson  
Dean's signature:  
Date: 4/16/24



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For use by Curricular Affairs (Undergraduate):

Committee	Approval date
APS	
Undergraduate Council	
Undergraduate College Academic Administrators Council	

For use by Curricular Affairs (Graduate):

Committee	Approval date
GPERC	
Graduate College Academic Administrators Council	



**New Academic Program  
PEER COMPARISON**

Program name, degree, and institution	Proposed UA Program	University of Washington	University of New Mexico
Current number of students enrolled		16-24 annually	Only referred to as cohort, # not available
Program Description	<p>The Paramedic certificate program is designed for students wanting to expand on their EMT certification into a higher level professional certification. Students will take the necessary coursework and spend the required field time to become eligible for the NREMT Paramedic certification exam upon completion of this 9+ month program over the Summer 7 week 2, Fall, and Spring semesters. Most of the course material will be taught in the Summer and Fall semester with an emphasis on building theoretical use of paramedic level skills. In the Spring semester, student will supplement course material with the application of what they've learned in various settings to deliver care with healthcare professionals.</p>	<p>To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills) and affective (behavior) learning domains</p>	<p>The EMS Academy EMT-Paramedic training program began in 1974. The program consists of approximately 1280 hours of lecture, lab, clinical and internship. The course is completed as a traditional 12-month curriculum. After successful completion of the program, the student will be capable of performing the functions prescribed by the US Department of Transportation (DOT) Paramedic curriculum as well as the additional requirements of the State of New Mexico EMT-P curriculum.</p>
Target Careers	Paramedic; Physician, Physician Assistant, Nurse,	Paramedic	Paramedic
Minimum # of units required	42	78	37

Level of Math required (if applicable)	NA	General Education MATH options	College Algebra and Statistics
Pre-Major? (Yes/No) If yes, provide requirements.	Yes	No	Yes
Special requirements to declare/gain admission? (i.e. pre-requisites, GPA, application, etc.)	EMT certification, 2.0 cumulative GPA, PSIO 201 + PSIO 202 or MCB 181R or ECOL 182; PSIO 380 + MCB 181R or ECOL 182. Statement of Purpose and Resume, Interview	Application, Interview, Cover Letter, 3 years of experience but may be waived, High School Diploma, EMT certification, College English, Math and a 5 credit Science Course	Application, Course list, Transcripts, Resume, 2 letters of recommendation, EMT certification, UNM student status,
Internship, practicum, or applied/experiential requirements? If yes, describe.	Yes, Students will complete 12 units of required internships per <a href="#">National Education Standards</a>	Yes, Students complete 1655 hours in the Practicums outlined in the Curriculum	Yes, 11 units of Clinical rotations and internship

Additional questions:

1. How does the proposed program align with peer programs? Briefly summarize the similarities between the proposed program and peers, which could include curriculum, overall themes, faculty expertise, intended audience, etc.

Due to the national education standards, which are the minimum requirements for all EMS certification programs, our program is aligned with the market for topics covered, field experiences, admission requirements and process. There are not many BS in EMS programs in the country and University of New Mexico was included in this comparison for that reason and their proximity to The University of Arizona.

2. How does the proposed program stand out or differ from peer programs? Briefly summarize the differences between the proposed program and peers, which could include curriculum, overall themes, faculty expertise, intended audience, etc.

Our program is appropriately aligned with national education standards. As far as comparative BS in EMS peer, the University of Arizona has the highest reputation among them. Simply put, being a University of Arizona certificate and degree program is a differentiator. Our Banner Emergency Department physicians and certified paramedic health educators will be teaching our courses.

3. How do these differences make this program more applicable to the target student population and/or a better fit for the University of Arizona?

Our target population is primarily the students enrolled at the University of Arizona that are scholarship-bound to Main campus. This creates a pathway to our BS in Emergency Medical Services that otherwise relied on previous paramedic certification in order to join the major. Student populations we have explored are scholarship-bound students, student-athletes, on-campus Veterans and active duty/reserve, national guard, and QTR students. A population still to explore is ROTC students and whether or not it would help their pending military obligations in any way.



## BUDGET PROJECTION FORM

Name of Proposed Program or Unit:

	Projected		
	1st Year	2nd Year	3rd Year
	AY25	AY26	AY27
<b>METRICS</b>			
Net increase in annual college enrollment UG	10	15	30
Net increase in college SCH UG	420	630	1,260
Net increase in annual college enrollment Grad	-	-	-
Net increase in college SCH Grad	-	-	-
Number of enrollments being charged a Program Fee	-	-	-
New Sponsored Activity (MTDC)			
Number of Faculty FTE			

## FUNDING SOURCES

Continuing Sources

UG RCM Revenue (net of cost allocation)	52,500	78,750	157,500	*\$125/SCH
Grad RCM Revenue (net of cost allocation)	-	-	-	
Program Fee RCM Revenue (net of cost allocation)	-	-	-	
F and A Revenues (net of cost allocations)				
UA Online Revenues				
Distance Learning Revenues				
Reallocation from existing College funds (attach description)				
Other Items (attach description)				
<b>Total Continuing</b>	<b>\$ 52,500</b>	<b>\$ 78,750</b>	<b>\$ 157,500</b>	

One-time Sources

College fund balances	-			
Institutional Strategic Investment	-			
Gift Funding	-	-	-	
Other Items (attach description)	30,000			*Funds from I
<b>Total One-time</b>	<b>\$ 30,000</b>	<b>\$ -</b>	<b>\$ -</b>	

<b>TOTAL SOURCES</b>	<b>\$ 82,500</b>	<b>\$ 78,750</b>	<b>\$ 157,500</b>
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## EXPENDITURE ITEMS

Continuing Expenditures

Program Overhead	36,158	6,250	6,250
Instructional Expenses	45,197	45,197	45,197
Employee Related Expense			
<b>Total Continuing</b>	<b>\$ 81,354</b>	<b>\$ 51,447</b>	<b>\$ 51,447</b>

**One-time Expenditures**

Construction or Renovation

Start-up Equipment

Replace Equipment

Library Resources

Other Items (attach description)

**Total One-time**

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\$ - \$ - \$ -

**TOTAL EXPENDITURES**

\$ 81,354 \$ 51,447 \$ 51,447

**Net Projected Fiscal Effect**

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\$ 1,146 \$ 27,303 \$ 106,053

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Batterjee curriculum licensing agreement

Thursday, February 1, 2024

Dear Mr. Morrison.

In the years, following the COVID pandemic, there has been a nationwide shortage in skilled healthcare providers. Nowhere has this shortage more evident than in our EMS systems. Historically, thousands of interested individuals applied for 20 to 30 positions as firefighters, EMTs, paramedics at a single fire department. Over the last four years, the number of qualified applicants to fill positions as EMTs or paramedics in the fire service has dwindled. As of January 2024, Tucson Fire department needs 50 to 60 additional paramedics to provide high-quality medical services to the Tucson community. It is important to recruit individuals from the University of Arizona to fill these positions.

The certificate in paramedic proposed by the University of Arizona, would help to fill some of the need in our community. Tucson Fire Department is just one example of an EMS system in need of paramedics. Other firebase and private EMS systems across the country are in desperate need of paramedics. With a nationwide shortage of paramedics estimated to last for another 10 to 20 years a program, such as the one you propose, will be key to meeting the demand for paramedics in the coming decades.

Sincerely,



Joshua B. Gaither, MD  
Medical Director, Tucson Fire Department

