LEARN (Boldly Elon): Learning (DPAS)

Goal 1: Provide students with an innovative curriculum

We define an *innovative curriculum* as one that considers current knowledge in adult learning theory and looks ahead to workforce readiness. Current adult learning theories focus on active (engaged), student-centered learning.[1] Providing hands-on (engaged) learning activities that prepare students for the workplace are key. Active learning is a process that involves attaining knowledge through participation or contribution.[2] The "teacher" designs and prepares activities that allow the students to take learning into their own hands.[1]

Engaged learning (active learning) activities include case-based learning, problem-based learning, hands-on learning experiences, gamification, metacognitive exercises such as schema building and retrieval practice, and simulated patient experiences.

Point of Care Ultrasound (POCUS) integration is an example of active learning and a useful professional skill that PAs can use. Literature recommends the need to be trained as early as possible.[3] Medical literature also points to the facts that POCUS is both within the scope of practice for PA's and is used in multiple settings common for PA employment. However, the absence of curricular training is the major barrier to their using POCUS professionally.[4-7] POCUS has also been demonstrated in PA literature as an educational adjunct to improve students' medical knowledge and clinical exam skills.[8] Additionally, simulation provides learners with "praxis"—an opportunity to practice and demonstrate skills in a lower stakes environment while strengthening learning.[9]

<u>Benchmarks and Outcomes</u>

B1.1 The curriculum offered includes engaged learning activities for both pre-clinical and clinical learners

    – <u>Outcome 1.1</u>: 100% of Elon PA didactic courses include some form of active (engaged) learning. See table.

B1.2 The curriculum includes integrated simulation and POCUS

    – <u>Outcome 1.2a</u>: Simulation and POCUS are integrated into the curriculum. 100% of Elon PA learners have access to basic POCUS training. Additional opportunities are available. See table

Table 1: Overview of Engaged Learning, Simulation, and POCUS Activities in Elon PA Curriculum										
COURSE		c/o 2023			c/o 2024			c/o 2025		
Winter/M1		Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS
PAS5000	Introduction to Medicine	SL		X	SL		X	SL		X
PAS5200	Medical Physiology	CBL			CBL			CBL		
PAS5400	Introduction to History & Physical Exam	RP	SP		RP	SP		RP	SP	
PAS5600	Professional Issues Seminar	CBL			CBL			CBL		
Spring/M2		Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS
PAS6100	Anatomy I	D		X	D		X	D		X
PAS6120	Pathophysiology I	CBL			CBL, Au	CBL, G		CBL, Au	CBL, G	
PAS6140	Clinical Medicine	CBL, G			Au, CBL			Au, CBL		
PAS6160	Pharmacology I	G	SP		G, CBL	SP		G	SP	
PAS6180	History & Physical Exam I	RP	SP		RP	SP		RP	SP	
Summer 1/M3		Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS
PAS6200	Anatomy II	D		X			X			X
PAS6220	Pathophysiology II	CBL			CBL	CBL		CBL	CBL, G	
PAS6240	Clinical Medicine II	CBL								
PAS6260	Pharmacology II	Gi	SP		G, CBL					
PAS6280	History & Physical Exam II	RP	SP	X			X			X
Summer 2/M4		Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS

		Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS	Active Learning	Simulation	POCUS
PAS6300	Emergency Medicine	CBL, SL	LF, SP	X	Au, CBL, SL	LF, SP	X	Au, CBL, SL	LF	X
PAS6320	Surgical Care	CBL, SL			Au, Gi, CBL, SL			Au, Gi, CBL, SL	SP	
Fall 1/M5		**Active Learning**	**Simulation**	**POCUS**	**Active Learning**	**Simulation**	**POCUS**	**Active Learning**	**Simulation**	**POCUS**
PAS6400	Special Populations	CBL, Da						CE,		
PAS6420	Reproductive Medicine & Sexual Health	CBL	SP	X	CBL	SP	X	CBL	SP	X
PAS6440	Behavioral Medicine							V		
PAS6460	Advance Clinical Reasoning	PBL, TBL, Da	SP		PBL, TBL, Da	SP		PBL, TBL, Da	LF, SP	
PAS6480	Master's Project I	Da			Da			Da, AI		
Fall 2/M6		**Active Learning**	**Simulation**	**POCUS**	**Active Learning**	**Simulation**	**POCUS**	**Active Learning**	**Simulation**	**POCUS**
PAS6800	Clinical Phase Preparation	CBL	SP	X						
Clinical Year: M7		**Active Learning**	**Simulation**	**POCUS**	**Active Learning**	**Simulation**	**POCUS**	**Active Learning**	**Simulation**	**POCUS**
PAS7000	Clinical Year Seminar I		SP	X		SP	X		SP, C2C	X
Clinical Year: M8		**Active Learning**	**Simulation**	**POCUS**	**Active Learning**	**Simulation**	**POCUS**	**Active Learning**	**Simulation**	**POCUS**
PAS7480	Master's Project II	Da			Da			Da		
PAS7500	Clinical Year Seminar II		SP	X*		SP, CBL	X*		SP, CBL	X*

Glossary of Active Learning Terms: AI=artificial intelligence, Au=audience response, CBL=case-based learning, C2C=clients to class, CE=community engagement, D=dissection, Da=data application, G=games, Gi=gamification, PBL=problem-based learning, SCPE=supervised clinical education practicum; RP=role play; SL=skills lab, TBL=team-based learning, V=Video

Glossary of Simulation Terms: LF=low fidelity simulation, HF=high fidelity simulation, SP=standardized patient experiences

POCUS cells marked with X indicate this is an integrated component of this course. POCUS cells marked with an X indicates that there is an opportunity for students to learn more advanced skills (optional)

Citations:

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