

BSc Paramedic Science Year 1 Overview

Year 1 practice module: Paramedic Practice 1

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Programme Lead: Kieran Brannigan (Kieran.brannigan@uwe.ac.uk)

Thank you for supporting a year 1 UWE BSc Paramedic Science student. The overall aims of year 1 is to provide the student with the **foundational skills** to develop competency in basic life support, history taking, patient assessment and development of basic differential diagnoses. Please use the contact details above if you require any support from the UWE paramedic team.

Timetable and skills overview:

Timetabled blocks	Modules covered (other than practice module)	Skills and procedures (OSCEs highlighted in yellow)
Teaching block 1	<ul style="list-style-type: none"> Interpersonal Skills for Paramedic Practice Principles of Prehospital Emergency Care Life sciences for Paramedic Practice 	Communication skills History taking and taking clinical observations Airway management – OPA, NPA, BVM, positional Basic life support including AED (adult and paediatric) Basic wound management Manual handling Intramuscular injections
Placement block 1	Community Placement – e.g., adult nursing home, fire service, patient transport	
Teaching block 2	<ul style="list-style-type: none"> Medical Conditions Emergency Care 	Structured patient assessment Developing differential diagnoses Basic clinical decision making Supraglottic airways (LMA and iGel) Newborn life support Normal childbirth and delivery
Placement block 2	SWAST emergency ambulance placement	
Teaching block 3	<ul style="list-style-type: none"> ECG Interpretation for paramedic practice 	ECG interpretation and decision making Patient assessment simulation Trauma equipment (MILS, scoop, vacuum mattress, splints and binders, tourniquets, trauma dressings)
Placement block 3	SWAST emergency ambulance placement	

Final sign off decision making:

Expected developmental stage of the student by the end of Year 1

By the end of year 1 we would expect a UWE BSc Paramedic Science student to be operating at around the level of a competent ECA. They should be able to take a patient history and complete a basic patient assessment of an adult patient with minimal supervision from their Practice Educator and they should be able to independently communicate with the patient and any relatives or friends on scene. By the end of the year, they should also be starting to discuss differential diagnoses with their PE and be able to explain the signs and symptoms that would indicate one preferred diagnosis over another for common presentations in adults. The student should be familiar with the more common medications that are given routinely for common presentations in adults and be independently accessing clinical guidelines to assist with clinical decision making alongside their PE. The clinical skills of the student should align with the expectations outlined in their EOPs above, and they should be able to independently carry out skills that they have had OSCEs in this year. The students professional and personal conduct should meet the expectations outlined on the final record of achievement.

Elements of Practice

EOP list	Req. level	Further detail
EOP1 Utilise communication technology	IND	E.G., the use of radio's, MDT, phone's and ePCR transmission
EOP2 Use appropriate moving and handling techniques and equipment	IND	Either patient handling (e.g., use of carry chair or slide sheets) or equipment handling (e.g. physical transport of medical equipment)
EOP3 Identify and minimise potential on scene risks to maintain a safe working environment	MS	Be able to consider any risks to self, staff or public when on scene, and then address them. (e.g., traffic at an RTC)
EOP4 Minimise cross-infection within scope of your practice	IND	Any actions to address infection prevention control – e.g., the use of gloves, alcohol gel or masks.
EOP5 Obtain informed consent	MS	E.g., taking observations – explaining the procedure and risks, and getting consent from the patient with minimal supervision
EOP6 Maintain patient confidentiality	IND	Ensuring that patient information is not shared without the patient's permission. For example, with family, friends or bystanders.
EOP7 Maintain patient records appropriately in accordance with local and national policy	IND	Independently complete core sections of the ePCR such as the HPC, observations or assessment documentation
EOP8 Check and replace emergency equipment	IND	Either as part of the VDI or after a significant incident – check and replace equipment as required.
EOP9 Identify individual social care needs	IND	As part of a full patient assessment, the student should consider the patients social care needs and report any concerns to the PE.
EOP10 Conduct a patient assessment including taking a history and physical examination	MS	Take a full history of a patient and conduct a physical examination which may elements of an IPAP assessment based on PC.
EOP11 Undertake a complete set of clinical observations/vital signs	IND	This should include a minimum of HR, RR, SpO2, manual BP and temperature performed and reported independently.
EOP12 Safely manage a patients' cervical spine	IND	A patient with potential or suspected c spine injury – e.g., MILS, collar, blocks.
EOP13 Manage the airway using basic positional methods, suctioning and/or OPA/NPA	IND	To independently manage a patients airway with techniques such as HTCL or jaw thrust, OR the use of OPA/NPA's
EOP14 Ventilate a patient using a bag-valve mask, reservoir and oxygen	IND	The use of a BVM to ventilate a patient, demonstrating a good CE grip with focus on adequate chest rise and fall.
EOP15 Insert and ventilate a patient using an iGel	MS	Under minimal supervision, insert an iGel as per OSCE requirements, confirm entry with ETCO2 and ventilate looking for adequate chest rise.
EOP16 Undertake cardiac compressions during CPR	IND	Independently undertake chest compressions at the correct depth, rate and allowing sufficient recoil.
EOP17 Administer oxygen therapy	IND	Select an appropriate delivery method (e.g. BVM, NRB, neb), and set up the oxygen circuit. Gain informed consent and attach the oxygen.
EOP18 Undertake cardiac monitoring	IND	Attach all 10 ECG leads to the anatomically correct locations, instruct patient on procedure and capture a good quality tracing, troubleshooting as needed.
EOP19 Interpret and identify 12-lead ECG rhythms	MS	Using a structured method, assess the ECG and with minimal supervision identify the predominant rhythm and abnormalities.
EOP20 Administer an intramuscular injection	IND	Use correct technique (as per OSCE) to prepare deliver an intramuscular injection.
EOP21 Recognise the need for, prepare and administer a range of medications within scope of practice	IND	Following a patient assessment, identify if any medications are required, and check clinical guidance. Prepare the medication (e.g. Entonox, IM adrenaline) and administer the medication with informed consent.
EOP22 Manage a minor injury with appropriate treatment and/or equipment	MS	E.g., use irrigation techniques, basic bandages and gauze and dress the wound appropriately.
EOP23 Communicate effectively with the patient and their family/carers	IND	Particularly in situations where communication is challenging, use communication skills to build professional relationships and make decisions.
EOP24 Provide an accurate pre-alert/handover to the receiving healthcare professional	MS	With minimal supervision, handover the care of a patient to another HCP in a structured way, such as ATMIST or SBAR. This could be a pre-alert or normal handover.

BSc Paramedic Science Year 2 Overview

Year 2 practice module: Paramedic Practice 2

Module Leader: Lily Sheppard (lily.sheppard@uwe.ac.uk)

Programme Lead: Kieran Brannigan (kieran.brannigan@uwe.ac.uk)

Thank you for supporting a year 2 UWE BSc Paramedic Science student. The overall aims of year 2 is to develop the students understanding and skills base in *specialist areas of practice*, such as extremes of age, mental health and trauma. The students will also be developing their leadership and communication skills in skills such as cardiac arrest management. Please use the contact details above if you require any support from the UWE paramedic team.

Timetable and skills overview:

Timetabled blocks	Modules covered (other than practice module)	Skills and procedures (OSCEs highlighted in yellow)
Teaching block 1	<ul style="list-style-type: none"> Paramedic Practice 2 Evidence-Based Paramedic Practice Emergency Care of the Older Adult 	Communication skills across the lifespan Paramedic Skills OSCEs – IV, IO, ETI, NC & NT (ETI/NC not in SWAST) Ability to critique evidence Recognition and management of certain conditions relating to older adult care
Placement block 1	SWAST emergency ambulance placement/non-ambulance placement	
Teaching block 2	<ul style="list-style-type: none"> Psychosocial Aspects of Paramedic Practice Advanced Life Support Skills 	Adult and Paediatric Advanced Life Support Knowledge of psychosocial patient presentations
Placement block 2	SWAST emergency ambulance placement/non-ambulance placement	
Teaching block 3	<ul style="list-style-type: none"> Pre-Hospital Emergency Care of the Child Trauma and Mass Casualty Management 	Recognition and management of paediatric presentations Emergency Obstetric Management Major Incident Management Trauma equipment (MILS, scoop, vacuum mattress, splints and binders, tourniquets, trauma dressings)
Placement block 3	SWAST emergency ambulance placement/non-ambulance placement	

Final sign off decision making:

Expected developmental stage of the student by the end of Year 2

By the end of year 2, we should be able to see an advancement in both the underpinning knowledge and confidence that a student is able to portray when attending a patient. Through the modules undertaken during second year, that student should be comfortably able to examine and offer guidance and referrals for paediatric, older adult and patients presenting with psychosocial concerns. Please bear in mind, the students may not be at a stage where they can independently feel confident in referral pathways for patients, but this confidence should be building. The clinical skills of the student should align with the expectations outlined in their EOPs above, and they should be able to independently carry out skills that they have had OSCEs in this year. The students professional and personal conduct should meet the expectations outlined on the final record of achievement.

Elements of Practice:

EOP list	Req. level	Further detail
EOP1 Identify and minimise potential on scene risks to maintain a safe working environment	IND	Be able to consider any risks to self, staff or public when on scene, and then address them. (e.g., traffic at an RTC).
EOP2 Undertake a leadership role during the clinical care of a patient	MS	The student should have growing confidence in taking the lead role when managing patients across the severity of patient presentations. This can include management of a range of presentations from falls patients to RTC scene management.
EOP3 Assess the patient’s capacity to consent to treatment	IND	Be able to undertake a capacity assessment on patients to determine their ability to provide informed consent.
EOP4 Obtain informed consent	IND	E.g., taking observations – explaining the procedure and risks, and getting consent from the patient with minimal supervision.
EOP5 Obtain an appropriate patient history	IND	Be able to take a structured patient history from a variety of patient presentations.
EOP6 Undertake a physical examination to identify and manage a medical condition	IND	Be able to conduct a physical examination of a patient presenting with a medical condition (eg. chest pain).
EOP7 Undertake a physical examination to identify and manage a traumatic injury	IND	Be able to conduct a physical examination of a patient presenting with a traumatic injury (eg. #NOF).
EOP8 Undertake an assessment and consider the management of a patient’s social care needs	MS	As part of a full patient assessment, the student should consider the patients social care needs and how to manage these patients.
EOP9 Manage a patient with a time-critical condition	MS	Recognise and manage a patient who is presenting with a time-critical condition (eg. Red-flag sepsis).
EOP10 Implement appropriate treatment based on assessment findings	MS	Once receiving findings from observations and/or assessment, be able to assimilate this information into a working diagnosis and rough treatment plan.
EOP11 Insert and ventilate a patient using an iGel	IND	Be able to successfully manage a patient’s airway by inserting an iGel. This must include knowledge of indications, contra-indications and side-effects.
EOP12 Insert an intravenous cannula	IND	Be able to successfully and consistently be able to gain IV access. This must include knowledge of indications, contra-indications and side-effects.
EOP13 Insert and obtain intra-osseous access	IND	Be able to successfully gain IO access. This must include knowledge of indications, contra-indications and side-effects.
EOP14 Recognise the need for, and administer medication whilst considering indications and contraindications	MS	Have a good understanding of the medications that are available to Paramedic and be able to identify the situations where these are to be administered.
EOP15 Perform needle thoracocentesis	IND	Be able to successfully diagnoses a tension pneumothorax and perform needle thoracocentesis. This must include knowledge of indications, contra-indications and side-effects.
EOP16 Accurately refer a patient’s care to another healthcare professional	MS	Once a treatment plan has been formulated, the student should be able to articulate the findings to refer the patient via alternative care pathways.
EOP17 Identify and interpret 12-lead ECG rhythms	IND	Using a structured method, assess the ECG to identify the predominant rhythm and abnormalities.
EOP18 Identify and manage patients who are candidates for reperfusion therapy eg. PPCI	MS	Using the knowledge and understanding of ECGs, identify candidates who are suitable for reperfusion therapy.
EOP19 Utilise effective communication to provide a comprehensive pre-alert or handover to a receiving healthcare professional	IND	The student be able to confidently provide a handover of care to a receiving healthcare professional.

BSc Paramedic Science Year 3 Overview

Year 3 practice module: Paramedic Practice 3

Module Leader: Nick Miller (nick.miller@uwe.ac.uk)

Programme Lead: Kieran Brannigan (Kieran.brannigan@uwe.ac.uk)

Thank you for supporting a year 3 UWE BSc Paramedic Science student. The overall aims of year 3 is to develop **confident decision makers**. The students will develop advanced patient assessment skills and in depth understanding of clinical reasoning, treatment and management choices. Please use the contact details above if you require any support from the UWE paramedic team.

Timetable and skills overview:

Timetabled blocks	Modules covered. (other than practice module)	Skills and procedures (OSCEs highlighted in yellow)
Teaching block 1	<ul style="list-style-type: none"> Primary and Urgent Care within Paramedic Practice (part 1) Evolving Paramedic Practice (dissertation/research module) 	Advanced physical assessment and clinical reasoning skills: <ul style="list-style-type: none"> Neurological patient assessment Abdominal patient assessment (GI, GU, vascular) Respiratory patient assessment Cardiovascular patient assessment 12 lead ECG assessment -STEMI and STEMI mimic recognition.
Placement block 1	Emergency ambulance placement and non-ambulance placement	
Teaching block 2	<ul style="list-style-type: none"> Primary and Urgent Care within Paramedic Practice (part 2) Law, Ethics and Leadership in Paramedic Practice 	Advanced physical assessment and clinical reasoning skills: <ul style="list-style-type: none"> Musculoskeletal patient assessment Ear, nose and throat assessment Wound assessment and management Mental health assessment Palliative care OSCE - History taking, physical examination and clinical reasoning.
Placement block 2	Emergency ambulance placement and non-ambulance placement	
Teaching block 3	<ul style="list-style-type: none"> Applied paramedic pharmacology (pharmacology and therapeutics in prehospital care) 	SIMULATION BLOCK – series of simulated events that cover common, and less common but serious presentations.
Placement block 3	Emergency ambulance placement and non-ambulance placement	

Final sign off decision making:

Expected developmental stage of the student by the end of Year 3

By the end of year 3 we would expect a UWE BSc(Hons) Paramedic Science student to be operating as an independent paramedic. They should be able to take a full patient history, complete a full assessment of a patient across all age ranges, and develop safe and effective treatment plans. The level of input from their Practice Educator should diminish across the third year of placement. The rate at which this happens will vary between students, but for the first placement block the student should be showing signs of independent practice.

In the second block, they should be able to manage most incidents with minimal assistance, and in the final block they should be able to handle all incidents, with their placement educator validating their decisions.

In addition, by the end of the final placement block:

- The students should be acting within the limits of their knowledge, skills, and experience.
- Have practised within the ethical boundaries of the profession, and has exercised a professional duty of care, in a non-discriminatory manner.
- Demonstrated the need to respect and, so far as possible, upheld the rights, dignity, values, and autonomy of every service user.
- Practised in accordance with current legislation, national, regional, and local guidelines, protocols and policies.
- Demonstrated an appropriate and professional attitude throughout.

Elements of Practice:

EOP list	Req. level	Further detail
EOP1 Minimise cross-infection within scope of practice and maintain a sterile-field	IND	Particularly when engaging in activities where contamination is more likely, student independently takes steps to reduce risk (e.g., use of PPE, alcohol gel and disinfecting wipes)
EOP2 Obtain a comprehensive patient history using the medical model	IND	To the standard of the Year 3 OSCE book, INDEPENDENTLY complete a comprehensive history as per the medical model including PC, HPC, PMH, DHx, SHx, FHx and review of systems.
EOP3 Undertake a comprehensive examination to identify and manage respiratory conditions.	IND	To the standard of the Year 3 OSCE book, INDEPENDENTLY complete a comprehensive assessment of the respiratory system, consider differentials, and commence a management plan.
EOP4 Undertake a comprehensive examination to identify and manage cardiac conditions	IND	To the standard of the Year 3 OSCE book, INDEPENDENTLY complete a comprehensive assessment of the cardiovascular system, consider differentials, and commence a management plan.
EOP5 Undertake a comprehensive examination to identify and manage neurological conditions	IND	To the standard of the Year 3 OSCE book, INDEPENDENTLY complete a comprehensive assessment of the neurological system, consider differentials, and commence a management plan.
EOP6 Undertake a comprehensive examination to identify and manage acute abdominal conditions	IND	To the standard of the Year 3 OSCE book, INDEPENDENTLY complete a comprehensive assessment of the abdominal system, consider differentials, and commence a management plan in an acute presentation.
EOP7 Undertake a comprehensive examination to identify and manage traumatic injury and /or manage Musculo-skeletal conditions	IND	To the standard of the Year 3 OSCE book, INDEPENDENTLY complete a comprehensive assessment of a musculoskeletal injury, consider differentials, and commence a management plan.
EOP8 Undertake a comprehensive examination to identify and manage endocrine emergencies.	IND	To the standard of the Year 3 OSCE book, INDEPENDENTLY complete a comprehensive assessment of an endocrine condition, consider differentials, and commence a management plan.
EOP9 Undertake a comprehensive examination to identify and manage ear nose and throat conditions.	IND	To the standard of the Year 3 OSCE book, INDEPENDENTLY complete a comprehensive assessment of the ear, nose and throat, consider differentials, and commence a management plan.
EOP10 Undertake an assessment of a patient's social care needs.	IND	As part of a full patient assessment, the student should independently consider the patients social care needs and recommend any relevant management plans.
EOP11 Undertake an assessment to identify mental health related conditions.	IND	Undertake an assessment of a patient experiencing mental health symptoms either as a primary or secondary complaint, and consider risk and treatment options.
EOP12 Implement appropriate treatment based on assessment findings	IND	Following the comprehensive assessment of a presenting patient, the student should independently decide on and implement an appropriate treatment plan.
EOP13 Manage patients with a time critical condition	IND	The student should independently assess and manage a patient who requires emergency treatment – usually requiring minimal on scene time, a pre-alert and blue light transport.
EOP14 Demonstrates an ability to manage an incident from the point of call to the discharge of care	IND	The student should independently 'run' an entire call episode without intervention – from the allocation of the incident, patient assessment and management and either discharge or transport and handover.
EOP15 Demonstrates professional standards in accordance with the HCPC's guidance on conduct and ethics for students, throughout the final year of placement	IND	The student should consistently hold the standards required of them by the HCPC standards throughout the year. This includes the time spent with patients, as well as professionalism between patient episodes.
EOP16 Recognise the need for a range of medications within scope of practice	IND	The student should be making recommendations for medications for a variety of patient presentations independently and administering the medications within relevant policies.
EOP17 Demonstrates an understanding of the management of a controlled drug.	IND	Most likely through discussion, demonstrate an understanding of the controlled medications that paramedics carry, and the relevant policies and procedures around their management and administration.
EOP18 Undertake a comprehensive assessment and manage a minor wound	IND	Within the PED's scope of practice, assess a wound and independently decide upon and perform any necessary interventions and treatment techniques including cleaning and dressing.
EOP19 Use assessment skills to form a provisional diagnosis and a list of differentials.	IND	Following a comprehensive assessment, discuss a list of differentials including the most likely and why, less likely and why, and not likely and why.
EOP20 Demonstrate the use of an appropriate alternative patient care pathway, including identifying red flags and giving safety netting advice.	IND	Independently identify a patient suitable for referral to an alternative pathway, complete the referral and offer advice, discussion of red flags and safety netting to the patient and any family/friends as relevant.
EOP21 Fully document and accurately refer a patient's care to another healthcare professional.	IND	Following the assessment and management of a patient, independently complete the relevant paperwork (e.g. EPCR) and provide a comprehensive handover to another HCP
EOP22 Interpret and act upon the 12 Lead ECG	IND	Independently interpret an ECG, confirm the preferred differential based on this and then make the relevant clinical decision and management plan based on this.
EOP23 Identify and manage patients who are candidates for reperfusion therapy; e.g. PCCI or stroke.	IND	Using relevant guidelines, independently identify a patient who needs immediate referral for reperfusion (e.g., FAST positive, STEMI)
EOP24 Participate in and direct the extrication of a patient following a road traffic collision (including self-extrication and entrapment).	IND	Independently manage the scene of vehicular extrication, making clinical decisions about the best method of extrication and participating in the procedure. This includes decision making around self-extrication.