



Exam Master's Pre-Matriculation Success Program: Supporting new graduate health professions students



#### Graduate-level Health Professions Enrollment Challenge:

# Many incoming students are not fully prepared academically for the rigors of their training and education

Graduate level health professions students are required to have a solid grounding in a common core of basic biomedical and general sciences before classes begin. However, even cohorts of highly qualified new matriculants may not have sufficient foundational preparation for the didactic and clinical curriculum.

#### **SUPPORTING NEW STUDENTS**

Many new graduate-level health professions students will need academic support to improve their understanding of core science subject knowledge necessary for success in their advanced coursework.

Deployment of a pre-matriculation program to support new students can be a good strategy, but graduate-level health professions programs may not have the time or resources to create, implement, and manage a prematriculation program of their own.

#### **MEETING THE CHALLENGE**

To meet these challenges, Exam Master has developed the Pre-Matriculation Success Program to ensure that new students are prepared for their early coursework.

This flexible, self-directed, online review program has been specifically designed for use by new graduate health professions students during their pre-matriculation period, before classes begin.

#### PRE-MATRICULATION PROGRAM FEATURES

- Targeted subject modules for self-guided review of key foundational concepts to build confidence and understanding.
- Embedded quizzes for a more formative, interactive experience for the learner.
- Summative exams for each subject to measure learning in key concepts, while identifying areas needing additional support.

This booklet provides a brief overview of Exam Master's Pre-Matriculation Pharmacy Success Program, our approach in developing the resource, and information on how your institution can participate in implementing the resources for your new students.

#### WHAT'S INSIDE

Why Pre-Matriculation Support?

Anatomy and Physiology Datasheet

Four Keys to Pre-Matriculation Success

Our 3-Step Program

Sample Learning Objective Information

Get More Information



# Cover all of the most important prerequisite subjects

Our program covers the key prerequisite subjects that graduate-level health professions students need to succeed in the critical first year of their program.



### Target the most relevant learning objectives

Rather than a general review, the Pre-Matriculation Success Program covers core learning objectives within each subject identified by educators as most important for success in a graduate-level health professions program.

## Four Keys to Pre-Matriculation Success



#### Enable students to self-assess online before classes begin

Easy-to-digest subject modules provide self-directed and guided review. Students work online at their own pace and on their own schedule – saving time and improving readiness for a graduate-level health professions program.



## Track improvement between baseline and summative assessments

Reinforce learning and measure progress with carefully constructed exams and quizzes. The program contains summative assessments for each subject to measure learning and build confidence.

## The Challenge: Variability in Academic Preparedness

For a variety of reasons, many of your incoming students may not be fully prepared for the rigorous curriculum they face. These students are at risk of falling behind in their studies. These reasons include:

- Variability in GPA
- Variability in quality and content of prior courses
- Variability in length of time since prerequisite courses were taken

Graduate-level health professions education is designed to accept and enroll students who are well-prepared for the rigors of the demanding health science curriculum.

Graduate-level health professions curricula are not specifically structured to remediate significant numbers of underperforming students. Additional support may be needed before classes begin to minimize the risk of students falling behind.

Exam Master's Pre-Matriculation Success program places strong emphasis on the core concepts of Anatomy and Physiology. Both subjects are critical to students' success, but often identified by educators as areas where students struggle. Graduate health professions education is not designed to remediate more than a handful of incoming students per cohort.

Refreshing students on prerequisite knowledge gaps is more efficient and effective than waiting until the need for remediation is identified after classes begin.

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#### WHAT'S INCLUDED IN THE PROGRAM

The complete 4-6 week
Pre-Matriculation Success Program
includes online targeted subject
modules, quizzes, and summative
exams.

Below is a list of the subjects in Exam Master's Pre-Matriculation Success Program:

- Anatomy
- Physiology
- Microbiology
- Time Management
- Critical Thinking
- Biochemistry (Summer 2020)

## Pre-Matriculation Success Program: Anatomy & Physiology Learning Module Content

Exam Master has developed a Pre-Matriculation Success program to help new graduate-level health professions students prepare for the rigorous curriculum they will face. The program has the following key features:

- Carefully constructed learning modules covering all key topics within each subject
- Embedded review questions and quizzes to help cement learning
- Subject level summative assessments to measure learning and identify knowledge gaps

Exam Master's Pre-Matriculation Success Program places strong emphasis on the core subjects of Anatomy and Physiology. Both subjects are critical to students' success, and often identified by educators as areas where students struggle. Key module components include the following:

- Articulated learning objectives for each lesson
- Instructional videos and presentations
- Quiz questions with explanations
- Summative assessments mapped to learning objectives for accurate diagnosis

Anatomy: Part I					
Topic	Learning Outcomes	Videos	Quiz Questions	Summative Assessment Questions	
The Head	7	7	35	14	
The Upper Limb	11	11	55	22	
Total	18	18	90	36	

Anatomy: Part II					
Topic	Learning Outcomes	Videos	Quiz Questions	Summative Assessment Questions	
The Back	5	5	25	10	
The Thorax	8	8	40	16	
The Abdomen	11	11	55	22	
Total	24	24	120	48	

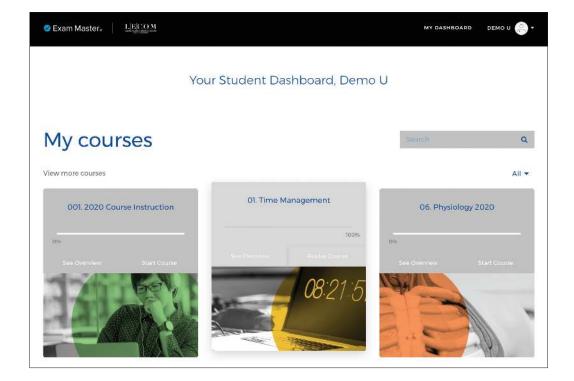
Anatomy: Part III					
Торіс	Learning Outcomes	Videos	Quiz Questions	Summative Assessment Questions	
The Lower Limb	10	10	50	20	
The Pelvis & Perineum	7	7	35	14	
Total	17	17	85	34	

Physiology					
Topic	Learning Outcomes	Videos	Quiz Questions	Summative Assessment Questions	
Membrane Anotomy & Physiology	5	5	21	11	
Circulation	2	2	7	4	
Renal Physiology	1	1	3	2	
Blood and Clotting	3	3	15	6	
Immunity	3	3	11	6	
The Nervous System	4	4	16	8	
Endocrinology	8	9	39	16	
Total	26	27	112	53	

## Pre-Matriculation Success Program On Thinkific

Exam Master uses Thinkific as the learning management system (LMS) to house course material for the Pre-Matriculation Success program courses. Each subject is a complete course module with video and learning check objectives, with summative exams specifically for science subjects. The learning objectives for each course are designed to reinforce learned material, and potentially teach new material, to help students better prepare before classes begin.

The easy-to-use format of Thinkific makes maneuvering through the Pre-Matriculation Success Program hassle-free for students so that their focus can remain on preparing for their upcoming classes. With Thinkific, PA educators can review student summative exam scores and progress in the Pre-Matriculation Success Program at their convenience.



#### PART 1: Self-Paced Review

#### **DESCRIPTION**

Online learning modules feature the most important learning objectives carefully selected by educators as most relevant to building a strong foundation in each subject:

- Anatomy
- · Physiology
- Microbiology
- · Time Management
- Critical Thinking
- Biochemistry (Summer 2020)

#### **LEARNING MODULE PURPOSE**

Exam Master's Pre-Matriculation Course Learning Modules help each enrolled student review and refresh their prerequisite knowledge of the most important concepts for each individual prerequisite course — Anatomy, Physiology, and more. Each course learning module identifies the key learning objectives covered.

Students can work at their own pace as they progress through modules. Most learning modules include instructional video lectures, visual content, and embedded formative quizzes to strengthen learning. Each module has multiple lessons.

Students will receive formative feedback throughout each lesson, and can review the associated learning modules as often as needed. Program administrators will receive reporting for each individual student's activity and results. Each participating program will be able to assign Exam Master's Pre-Matriculation learning modules as student-directed self-study or with program faculty involvement or guidance.

#### **DELIVERY METHOD**

Online Learning Management System

#### PART 2: Embedded Quizzes

#### **DESCRIPTION**

To provide a more interactive experience for students and help solidify learning, many of the lessons within the learning modules contain embedded quizzes and questions. Students are able to check their learning and receive immediate feedback on their responses. All quiz questions contain rationales to help students better understand or clarify concepts.

# Subject-based learning modules focus on key learning objectives critical for a proper understanding of each subject. Students are provided with itemized set of learning objectives to put course materials into

better context.

## PART 3: Pre-Matriculation Course-Specific Summative Exams

#### **DESCRIPTION**

Summative subject matter exams designed to assess student's learning after they have completed each subject.

#### **SUMMATIVE EXAM PURPOSE**

Exam Master's Pre-Matriculation summative exams are designed to assess whether the participating student has met the learning objectives required for each core subject. Detailed score reporting provides educators and students with a breakdown of the student's strengths and weaknesses down to the subtopic level. Each pre-matriculation summative exam's blueprint has been developed to reflect the most important learning objectives covered in the subject module.

#### **DELIVERY METHOD**

Online Exam Master Academic Manager Testing Platform

#### **DEMO SESSIONS AVAILABLE**

Schedule a 30-minute informational demo to learn more about Exam Master's Pre-Matriculation Success Program.

Topics covered during the demo include:

- Development history of Exam Master's Pre-Matriculation Success Program.
- Live Review of Pre-Matriculation Success Program
  - Phase 1: Pre-Matriculation Subject Learning Modules
  - Phase 2: Pre-Matriculation Lesson Quizzes
  - Phase 3: Pre-Matriculation Subject Matter Summative Exams
- Questions and Answer Session Covering:
  - Orientation and Implementation
  - Examples of Best Practices
  - Pricing Options
  - Program-Specific Questions

Many of the learning modules within each subject contain embedded quizzes and questions.

These questions help to make the learning more interactive, provide formative feedback, and help guide further study.

#### ANATOMY: THE ABDOMEN

- Describe the attachments, actions, and functions of the muscles of the abdominal wall.
- Describe the spleen within the abdominal cavity and how it is suspended in position.
- Describe the relation of the esophagus with the neighboring structures.
- Name the four parts of the stomach and its relationship to its two mesenteries.
- Compare and contrast the differences between the jejunum and ileum of the small intestine.
- Identify the parts of the colon and their blood supply.

**Sample Learning Objectives** 

- Understand the anatomical relationship between the pancreas and the duodenum.
- Describe the pathway of bile drainage from the liver to the duodenum.
- Describe the flow deoxygenated blood from digestive organs (small and large intestine) back to the liver.
- Understand the anatomical relations of the kidneys, urters, and urinary bladder in both males and females.
- Name the branches of the abdominal aorta and identify which organs/regions they supply.

#### **PHYSIOLOGY: ENDOCRINOLOGY**

- Define the function of a hormone
- Define the hypothalamic hormones and how they regulate the production of other hormones
- Distinguish between anterior and posterior pituitary hormones.
- Describe mechanisms of hyper- and hypothyroidism
- Describe the role of parathyroid hormones in bone metabolism
- Discuss the various pancreatic hormones with particular emphasis on their roles in blood glucose homeostasis
- Describe and distinguish the various types of adrenocortical hormones (glucocorticoids, mineralocorticoids, androgens) and their effects
- Describe the pathogenetic causes of diabetes mellitus, diabetes insipidus, adrenal insufficiency (Addison's disease), Cushing's disease, and pheochromocytom

#### **Prescription for Success**

Many incoming students are not prepared academically for the rigors of graduate-level health professions education. Prior undergraduate GPA and undergraduate science GPA are not always reliable indicators of the academic preparedness of incoming students.

Non-traditional students may be years away from having engaged with many core topics and subjects in common pre-requisite subjects.

Provide your students with the tools to succeed, an opportunity to refresh their knowledge, and build their confidence.

Exam Master's Pre-Matriculation Program Key Features:

- Comprehensive Coverage of Core Subjects
- Targeted Learning Objectives for Focused Learning
- Quizzes and Summative Exams to Solidify Learning
- Online and Self-Paced

For more information on Exam Master's Pre-Matriculation Success Program for PA/PT/OT/NP, contact Jim Pearson: jpearson@exammaster.com 800-572-3627 ext. 115

#### **ABOUT EXAM MASTER**

For the last 25 years, Exam Master has served the health professions community by offering a variety of resources to support board and licensure exam preparation, student assessments, remediation, and overall program success. Professions served include pharmacy, dentistry, medicine, physician assistant, and nursing. Exam Master also works with many medical libraries to support the success of their constituents. Exam Master currently serves over 400 health science institutions.

take a summative exam after completion of each subject module:

• Anatomy

Finally, each student will

- Physiology
- Microbiology
- Biochemistry (Summer 2020)

Each summative exam will serve as a comprehensive diagnostic of the student's strengths and weaknesses in that core subject. This data can help guide areas in need of remediation in specific learning objectives important to success for your students.



#### **Prescription for Success**

Exam Master's Pre-Matriculation Success Program: Supporting new graduate-level health professions students before classes begin.

Contact Jim Pearson at jpearson@exammaster.com 800-572-3627 ext.115

exammaster.org/pre-matriculation