

The Pre-Professional Curriculum in Pharmacy Education

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Special Thanks To ...

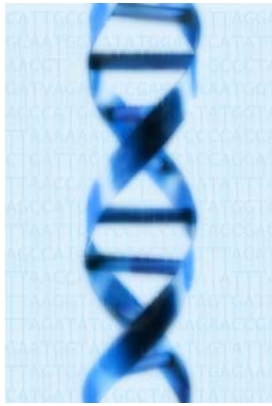
- Lisa Lawson
- Buzz Kerr & Jim Uchizono
- Gary Oderda & Cecilia Plaza
- Academic Affairs Committee
- Reviewers
- Vic Yanchuk

Which best depicts your pre-professional curriculum?



Perspective ...

- The pre-professional curriculum sets the stage for the professional curriculum and therefore can be a continuously moving target...



Expectations



Factors that Influence or Drive the Pre-Professional Curriculum

- Secondary & Post-Secondary Education
- Applicant Pool & Attributes
- Institutional Pressures
- **Professional Curriculum**
 - **Goals & Curricular Outcomes**
 - **Design & Delivery**
- Postgraduate Training
- Professional Practice
- Societal & Patient Expectations & Needs

Charge for this White Paper

- Provide “an analysis of the knowledge, skills, attitudes, and values that students need to enter pharmacy programs, the role of liberal education, and the connection between the pre-professional curriculum and the professional curriculum”.

Approach for this White Paper

- Evaluation of available data on
 - Current pre-professional curricula
 - Impact of admissions factors on program and professional success or difficulty
- Review of current models
 - Undergraduate education
 - Pharmacy practice

Limitations

- Limited measures of success or failure
- Lack of accepted standardized methods to evaluate certain attributes or potential
 - Critical thinking, moral reasoning, leadership, technology, etc.
 - Accepted levels of competency needed
- Lack of data on the impact of changes in the pre-professional curriculum
- Focus on pharmacy education

Trends in Undergraduate Education

- Learning strategies and methods
 - Active & interactive learning
 - Extra- and co-curricular requirements
- Focus on development of specific abilities
 - Leadership
 - Critical thinking
 - Communication & interaction
 - Societal responsibility
- Content covered

Initial Findings ...

- There is considerable variation in the required pre-professional curricula among colleges and schools of pharmacy.
- There is also considerable variation in admission criteria and processes ...
- Surprised ??

**Should we as an academy
have a uniform or more
consistent pre-professional
curriculum?**

CAUTION

**THIS SIGN HAS
SHARP EDGES**

DO NOT TOUCH THE EDGES OF THIS SIGN



ALSO, THE BRIDGE IS OUT AHEAD



ACPE Accreditation Standard 17.1

Pre-Professional Curriculum

- At least two years of university or college course work.
- Include basic sciences courses such as general and organic chemistry, biological sciences with a focus on human processes and diseases, mathematics, informatics, communication technologies, and physical sciences (physics).
- Course work in the humanities, social sciences, and communications should be required.

Would the following general abilities be desirable in all applicants?

- Critical thinking
- Problem solving
- Interaction
- Social & emotional intelligence
- Interpersonal relationship
- Leadership
- Societal responsibility
- Motivation
- Maturity
- Compassion
- Empathy
- Integrity
- Altruism
- Respect
- Responsibility
- Service orientation

Which of these content specific abilities, are not desirable in all applicants?

- General biology
- Microbiology
- Human anatomy and physiology
- General / inorganic chemistry
- Organic chemistry
- Calculus
- Physics
- Statistics
- Economics
- Composition
- Communication
- Psychology
- Sociology

Which of these would also be desirable in all applicants?

- Genetics
- Biochemistry
- Immunology
- Microeconomics & Macroeconomics

- Completion of all liberal or general education requirements

**Should a baccalaureate degree
be required for entry into a
Doctor of Pharmacy program?**

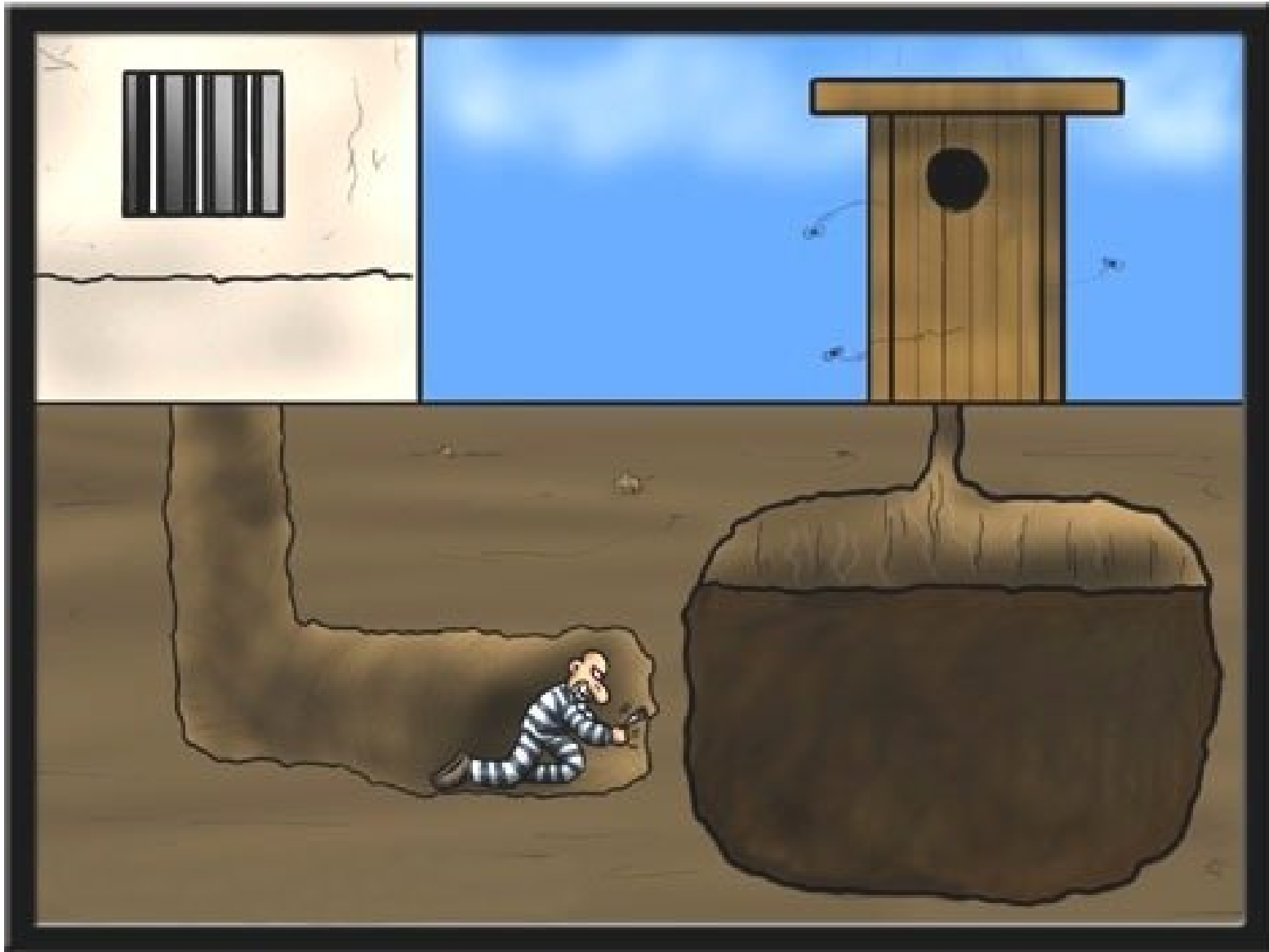
**If so, what types of degrees
would be acceptable or not
acceptable?**

Additional Challenges

- To develop, validate, study, and use
 - Measures of success or failure that go beyond GPA and NAPLEX
 - Methods to evaluate select attributes
 - Levels of competency for major abilities
- To evaluate or continue to evaluate the impact of the following on academic program and professional success and failure
 - Changes in the pre-professional curriculum
 - Admission factors and attributes

**Do the recommendations in
this white paper go too far
or far enough?**

Where do we go from here?





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If nothing else ...

- Keep up with current practices in undergraduate education
- Continuously consider what incoming abilities and attributes are needed to enhance
 - Student and practitioner success
 - Health care and the profession of pharmacy
- Revise your pre-professional curriculum if needed
- Assess the impact of those changes on
 - Applicant numbers and characteristics
 - Academic and professional performance
 - The professional curriculum

Comments & Questions

