The Minerva Model: Training Leaders and Innovators for a Global Future

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“We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely.”

E.O. Wilson
Technological advances, like big data and automation will continue to reshape industry and the workforce.

current job roles may be displaced by the shift in the division of labor between humans, machines and algorithms, while 133 million new job roles may emerge by 2022

(World Economic Forum, 2018)
Powerful Forces of Change

Globalization will continue to drive market expansion, talent acquisition, and innovation.

65% of companies with more than $10 billion in annual revenues have official programs for recruiting diverse talent

(Forbes Insights, 2011)
By equipping students with key adaptable skills, we enable them to succeed, and more importantly, to effect positive change in the world.

“Demand for higher cognitive skills such as creativity, critical thinking and decision making, and complex information processing, will grow at double-digit rates.”

(McKinsey & Co., 2018)
But educational institutions are facing multiple systemic issues.
The Problems
Facing Education
Problem One
The Skills Gap

Higher education is not fulfilling its promise to prepare students. Students who graduate lack the cognitive tools needed for success in the global workforce.

(Bok, 2013; Bowen & McPherson, 2016)

96% of chief academic officers believe their institutions are effectively preparing students for the workplace.

11% of employers agree that universities teach graduates the skills needed for success.

(Gallup, 2014)
Problem Two

Completion Rates

Nearly half of students do not successfully earn their degrees.

Those that do graduate often fail to absorb the content of their classes.

(Bowen & McPherson, 2016)

55% of U.S. students graduate in six years or under

(Shapiro, et al., 2017)
Problem Three
Rising Costs

Those that do graduate, typically leave with enormous debt.

Beyond individual earning potential, this problem imposes great costs on the broader society.

(Kelly & Carey, 2013)
Problem Four
Unequal Access

Top non-U.S. students are often excluded from top universities. Most U.S. universities have unstated quotas for the number of foreign students they admit.

(Craig, 2017; Watkins, 2013)

<1% of students admitted to Harvard are Chinese, which does not even begin to reflect the number of qualified students in the world’s largest population center.

(Harvard University, 2017)
In order to address these major problems, we need to rethink how and what we teach, always keeping in mind who teaching is for.
A Better Way to Learn
Active learning has been definitively shown to be superior to lectures in promoting both comprehension and memory.

55% increase in examination success over passive, lecture-based learning (Freeman, et al., 2014)
Fully active learning hinges on discussion, activities, and exercises that require students to be continuously engaged during every class.

(Kosslyn, et al., 2017)

“The Active Learning Forum is a place where you're constantly engaging with what you're learning.”

Guillaume Picard
Minerva Class of 2019
Through a combination of theory and practice, students gain four flexible and broadly applicable skills, introduced in our cornerstone courses and used throughout our curriculum.

“Practical knowledge is knowledge one can use to adapt to a changing world, which allows one to achieve one’s goals.”

Stephen M. Kosslyn, Ph.D.
Elements of the core competencies that span industries and disciplines

Personal Skills

**Critical Thinking**
Evaluating claims and justifications, analyzing data, decisions, and problems

**Creative Thinking**
Facilitating discovery, applying research methods, and solving problems

Interpersonal Skills

**Effective Communication**
Using language and using nonverbal communication techniques

**Effective Interaction**
Interacting within complex systems, negotiating and persuading, working with others, and resolving ethical problems
Learning Objectives Underlying the Four Core Competencies:
Practical Knowledge in Action

Habits of Mind

Cognitive skills that are triggered automatically

Examples

- Characterize the nature of the problem to be solved
- Identify audiences and tailor messages accordingly
- Use effective strategies to teach yourself new material
## Learning Objectives Underlying the Four Core Competencies

### Practical Knowledge in Action

<table>
<thead>
<tr>
<th>Foundational Concepts</th>
<th>Examples</th>
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</table>
| **Fundamental knowledge that is broadly applicable** | - Distinguish correlation from causation  
- Identify and compensate for biases  
- Identify ways that multiple causes interact in complex systems |
Minerva focuses on how to help students **transfer** this practical knowledge to new contexts, including those that appear very different on the surface.
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<tr>
<th>Arts and Humanities</th>
<th>Analyzing the Humanities</th>
<th>Contextualizing the Humanities</th>
<th>Historical Trends in the Humanities</th>
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<td>Natural Sciences</td>
<td>Theoretical Foundations of Natural Science</td>
<td>Research Analyses in Natural Science</td>
<td>Designing Solutions</td>
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<td>Molecules and Atoms</td>
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<td>Empirical Approaches to the Social Sciences</td>
<td>Designing Societies</td>
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<td>Mind and Emotion</td>
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<td>Economic Markets</td>
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<td>Business</td>
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<td>Enterprise Management</td>
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<td>Strategic Finance</td>
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<td>Managing Operational Complexity</td>
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How We Teach

Active Learning Forum™ (ALF)

Technology offers the ability to create both a more controlled and a more dynamic setting than in a traditional classroom.

Key Benefits

- Multiple video streams enable remote access
- Breakout groups allow collaborative work
- Talk Time™ encourages equal participation
How We Teach

November 28, 2018

Active Learning Forum™ (ALF)

Characterize the Problem

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The platform also offers instructors powerful tools for developing courses and lesson plans, as well as evaluating student performance in every class, across courses, and over all four years.
Course Builder

Fall 2018

B110 Fall 2018  Market Dynamics and Product Analytics

Syllabus

- Syllabus for B110

Lesson Plans

1.1: How do we define the purpose of a business?
1.2: What is the relationship between value and marketing?
2.1: What do people want and why?
2.2: What influences consumer choice?
3.1: Is consumption a form of self expression?
3.2: What psychological forces influence consumer behavior?
4.1: What makes people happy?
4.2: What are the problems in consumer psychology research?

Assignments

- [6x] Experimental Design Paper - Due on week 4 (Friday)

B111 Fall 2018  Financial Planning, Budgeting and Modeling

B144 Fall 2018  Needs Identification and Product Development

B145 Fall 2018  Venture Initiation and Valuation

B146 Fall 2018  Business Operations

B166 Fall 2018  Business Optimization
03

Minerva Schools Model
Minerva undergraduates live and learn in seven world cities during their four years of study, gaining exposure to a wide range of cultural contexts.

Residential Locations
Year 1
San Francisco
Year 2
Seoul, Hyderabad
Year 3
Berlin, Buenos Aires
Year 4
London, Taipei
Eliminating campus infrastructure and amenities removes the bulk of operational costs associated with higher education.

Reducing Costs

1/3 the annual cost of a Minerva education (less than $30,000/year) compared to other top-tier institutions
Cost Comparison of Top Universities

2018–19 Academic Year

- Minerva: $12,950 (Tuition) + $29,950 (Total Cost)
- MIT: $46,400 (Tuition) + $62,946 (Total Cost)
- Stanford: $46,320 (Tuition) + $65,177 (Total Cost)
- Harvard: $45,278 (Tuition) + $60,659 (Total Cost)
## Undergraduate Student Body

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>75%</td>
<td>International Students</td>
</tr>
<tr>
<td>60/40</td>
<td>Female/Male Ratio</td>
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<tr>
<td>80%</td>
<td>Receive Financial Aid</td>
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- The student body is more diverse than at any other top university — organically.
- Equal access for female students demonstrates both the global demand — and available talent — among young women.
- International diversity does demand a greater level of financial assistance.
## 2018 Admissions Data

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Worldwide Applicants</td>
<td>23,400</td>
<td></td>
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<tr>
<td>Admitted Students</td>
<td>274</td>
<td>1.2%</td>
</tr>
<tr>
<td>Enrolled Students</td>
<td>177</td>
<td>65%</td>
</tr>
<tr>
<td>Applicant Countries</td>
<td>184</td>
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</tbody>
</table>
“You can’t change the world, if you haven’t seen the world.”

Qiqi Xu, Minerva Class of 2019
Thank you.