

Perspectives on a Transformational Course

Sustainable Product and Market Development for Subsistence Marketplaces – 2009-2010

Brian Schertz

First Midwest Student Conference on Sustainable Development in India

DePaul University

Chicago ,IL

21 April 2012

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What I discovered in the course:

- International Field Experience
- Interdisciplinary Experience
- Engineering in Relation to Society



- B.S., Civil Engineering, UIUC (May 2009)
 - Minor: Business Administration
- M.S., Civil Engineering, UIUC (Dec. 2009)
 - Structural Engineering Focus
- M.S., Mechanical Engineering, UIUC (In Progress)
 - Materials Behavior Focus

How did the course do that?

- Understanding
 - Poverty – US and India
 - Subsistence Contexts
 - Mutual Respect
 - Qualitative Research
- Initial Project Framing
 - Sponsor
 - Interdisciplinary Groups
- International Field Exp.
 - Interviews
 - Observing Context
- Product/Business Plan Formulation
 - Deep Interdisciplinary
 - Iteration
 - Comprehensive



My Experience

- Health care in subsistence
- Rural and semi-rural areas
- Context for my *'lessons'*



Course Lessons – Exhibit A:

How to teach an engineering student
to *appreciate* qualitative research

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Exhibit A – Qualitative



V.S.



Do you have a preference?

Course Lessons – Exhibit B:

How to teach a engineering student
what true *inter-disciplinarity* is

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polyMed Inc
 We are focused on enabling your health center to expand into rural areas by extending the capabilities of your licensed pharmacist.

WHAT WE DO

SERVICES
 Providing the best medicine delivered to your patients.

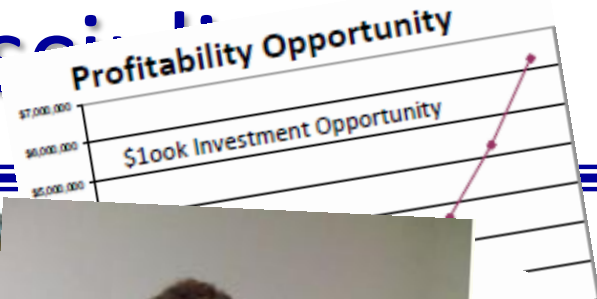
COMPANY
 polyMed Inc is a company based on providing a unique blend of services that will help your health center succeed. We are a team of professionals who are committed to providing the best service to our customers.

Benefits of the Automated Pharmacy Machine

- The primary goal of the polyMed Pharmacy Machine is to provide a cost-effective solution for your health center.
- Increase the number of patients served.
- Reduce the number of staff required to operate the machine.
- Eliminate the need for a pharmacist to be present at the machine.
- Increase the number of hours the machine is available to your patients.
- Reduce the risk of medication errors.
- Increase the safety of your patients.
- Reduce the risk of theft.
- Increase the security of your pharmacy.
- Increase the overall efficiency of your pharmacy.

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Part B – Interdisciplinary

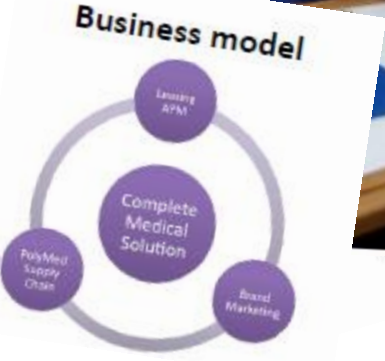


Materials for APM Prototype

Machine Shell Costs	Quantity
Aluminum Supports	20
Aluminum Shelves	16
3/4" (3/64) Thick 3003 Fabricated Aluminum Sheet	100 sq. ft.
Electrical Copper Wire (28 Gauge)	50 linear ft.
Computer Interface Module	1
220 V, 300W Power Transformer(216-263 V Compatible)	1
Door Hinges	4

between Mechanical and Electrical

Cost	Description	Quantity
\$1.25	DC Motor	1
\$0.75	Robbin Cutter	1
\$0.10	Plastic Housing	1
\$1.25	Electrical Copper Wire (28 Gauge)	1
\$0.25	Sprocket Drive System	1
\$4.85	Revolving Plastic Plate	1
\$1,692.10	Total APM Unit Material Costs	



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 - David Chonowski
 - Amanda Hansen
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Questions/Comments

Thanks for your attention!

