

**University of Ottawa**



**uOttawa**

**Faculty of Engineering**

**GNG2101 - Introduction to Product Development and Management  
for Engineers and Computer Scientists**

*Project Deliverable H - Economics Report and 1 Minute Video Pitch*

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## Introduction

This deliverable will demonstrate our teams' economics report in relation to the development and sales of our website. This deliverable will outline all types of costs associated with our business, our income statement for the third year in the company as well as an NPV analysis and will outline all assumptions taken in regard to our economics report. This deliverable is very important because it will demonstrate our team's plan in turning our product into a profitable venture for our CEED clients. This deliverable will be concluded with a 1-minute pitch video that will introduce our brand, explain the problem our product is solving, discuss the proposed solution our product will incorporate and demonstrate its competitive advantage over other similar products that are currently on the market.

## Cost Associated with the Business

All costs such as salaries, advertising and material cost were all cost assumptions our team took into account if we were running our own business as website developers and selling our product to University of Ottawa students. Our assumptions were also made knowing our business was independent from CEED.

Type of cost	Variable cost	Fixed cost	Semi variable cost	Direct cost	Indirect cost	Total final cost for 1st year
Web design cost		9000\$			500\$	
Annual site maintenance cost	1200\$					
Advertising	5000\$				350\$	
Salaries				40 000\$		
Cost for information videos		14 400\$				
<b>Total</b>	5200 \$	23 400\$	+	40 000	=	<b>69 450 \$</b>

## Three Year Income Statement

All sales as well as operating expenses will be included in our assumptions for our economics reports. These costs and sales were estimates made by our team for a business running an informational, small business website. We estimate that our website will run 4 3D

printing labs for beginners a week and the group of people attending the lab will be between 25-40 people. The estimated amount of people that would pay for our subscription services would be around one-fourth of the group, thus, between 6-10 people attending the lab would be customers that will be paying a subscription of 30\$ each.

**Sales:** 187 200

**Cost of goods sold:** 27 000

**Gross profit on sales:** 160 200

**Operating expenses:**

**Marketing expenses:** 15 000

**Salaries** 120 000

**Total operating expenses:** 135 000

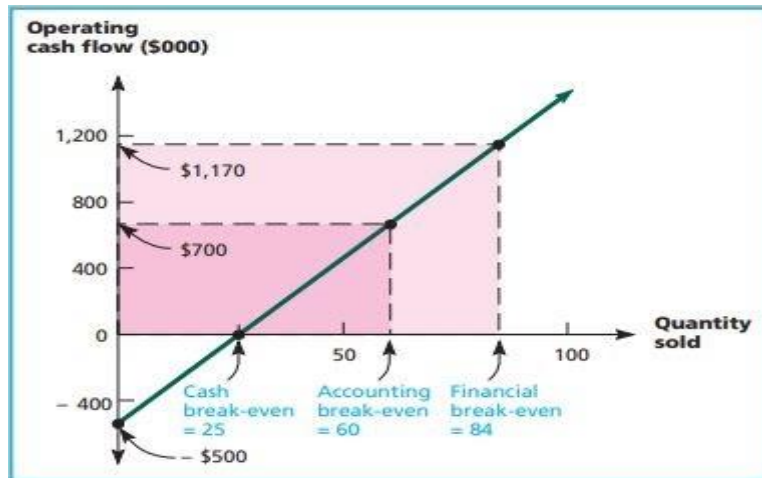
**Operating income:** 25 200

**Net income:** **25 200\$**

## NPV analysis/ Break-even point

	A	B	C
1	NPV Break Even Analysis		
2			
3	Price	45	
4	Demand	2500	
5	Unit Cost	30	
6	Fixed Cost	1750	
7	Revenue	112500	
8	Variable Cost	75000	
9	Total Cost	76750	
10	Profit	35750	

## Break-even Analysis done in Microsoft Excel



Cash flow,  
Accounting and

Financial Break-even points signifying our operating cash flow for running our online interactive 3D service.

## Assumption in Regard to Economic Report

- An average of 4 groups of 25-40 people attend the lab each week.
- The lab runs all 52 weeks of the year since the ones attending are not always students.
- 40 people on average every week pay for the subscription-based service our 3D printing beginners lab offers.
- An amount of 40 000\$ is to be paid to each member of the group.
- The website is run by one person who is also the owner of the company
- The company is a small information business website.
- The annual maintenance cost is an average for small business websites and the other charges in regard to the website are a fixed one-time cost.

## Conclusion

In conclusion, an economic analysis was conducted on our business plan to ensure that the product will result in a profitable venture for CEED. Our economic report outlined the assumptions made, a third-year income statement and finally an NPV analysis. All costs were specified, listed and classified to help in the income statement and NPV analysis. The income statement demonstrates a net profit of more than 25K \$ after the third year to our business. The NPV analysis shows a cash break even at 25 along the quantity axis. However, based on the

assumptions taken into consideration, we concluded that our product is capable of resulting in a profitable business for CEED and other providers.