

Joseph McKinney
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Education:

BS in Chemical Engineering at University of Massachusetts Amherst 09/14-12/18
GPA: 3.72/4

Professional Experience:

Chemical Engineer at FXI, Portland OR 03/19-04/20

- Redefined department KPI to develop a more accurate understanding of process waste, as well as allowing the ability to track process improvements
- Scheduled, formulated, and supervised daily foam manufacturing utilizing a team of 5 operators
- Developed a VBA based method to quantitatively determine all forms of material loss in department product, used to reduce scrap quantities from 8.5% of yield to 1.6% of yield netting a reduction in material costs of \$29,000/month in year over year savings
- Assimilated knowledge of sister plants to create new product formulations to reduce material costs, saving \$33,000/month in year over year savings
- Began developing a long-term design of experiments to eliminate out of spec material and increase control over process outputs for new products in less trials than normally required
- Created a plantwide Access database to transition several departments paper only records to digital format, allowing for a streamlined method to determine product failing points, enable tracking of plantwide downtime, and gathering process data for use in design of experiments
- Performed daily, weekly, and monthly overall plant Overall Equipment Effectiveness analysis utilizing pivot tables for plant management and corporate executive teams
- Implemented a daily production meeting for plant management to discuss tasks and concerns for the day, determine noteworthy failures or successes from the previous day, and discuss analyzed production data from the previous day of operations
- Led a cross functional team to create a new plant bin layout to improve material flow and inventory control
- Put together monthly inventory analysis to develop corrective actions to better identify the most notable plantwide transaction failing points
- Spearheaded a project under VP of manufacturing, VP of Operation Excellence, and Director of Sales to determine financial viability of pursuing a possible customer, including determining profit of initial proposal and long-term breakeven point of manufacturing

05/18-08/18

Product Engineering Intern at Lanxess, Naugatuck CT

- Worked with company manufacturing plants to analyze new experimental reagents to lower costs while still providing same level of quality to customers
- Collaborated with Applications department to create two new product formulations to be tested for in-house experimentation
- Worked with sales team to gather potential customer product property requests to develop four experimental products to capture new commercial business
- Developed and began three long term studies into aging effects on new blocked isocyanate systems, the central product for future company sales growth

01/17-07/17

Method Development Co-op at Bristol-Myers Squibb, Devens MA

- Used fishbone diagram to diagnose and resolve issues with departments Microfluidic gel electrophoresis device
- Developed a method to determine protein charge analysis in a sixtieth of the time required for the previously used method
- Performed statistical analysis of above method to prove viability of strategy even with decreased resolution compared to previous in place method

Skills:

- Experience with SQL, VBA, Python, R, Java, Matlab, SAP, and Microsoft Office Suite
 - Excellence with Excel and Access, familiarity with Microsoft Power BI