



**National Center for Aviation
Training (NCAT)
Equipment and Training
Report**

December 2015



Table of Contents

1.	Introduction/Summary _____	3
2.	Legislative Language _____	4
3.	State of Kansas and Wichita State University Purchasing Guidelines _____	5
4.	Protocol and Timeline for Equipment Expenditures _____	10
5.	Protocol and Timeline for Training Expenditures _____	11
6.	FY 2015 Actual Expenditures _____	12
7.	FY 2016 Planned Expenditures _____	20

Introduction and Summary

Each program year, the industry's most pressing training needs are identified by industry representatives on National Center for Aviation Training (NCAT) Industry Advocate Teams and matched to existing expertise within Kansas to offer unique training opportunities within the aerospace cluster in Kansas. The equipment funded via this program is selected from the recommendation of the Industry Advocate representatives. Each equipment purchase is selected with a budget and tied to definitive training deliverables to increase competitiveness within Kansas. NCAT works closely with industry representatives who serve as points of contact and monitor the progress of the equipment purchases along with the link to the training opportunities for the aerospace cluster. WSU provides a summary report to the board and legislature each year which details expenditures made as part of this program.

Legislative Language

Senate Substitute for HOUSE BILL No. 2506

WICHITA STATE UNIVERSITY

(a) There is appropriated for the above agency from the state general fund for the fiscal year ending June 30, 2014, the following:

Operating expenditures (including official hospitality) \$281,267

Sec. 22.

WICHITA STATE UNIVERSITY

(a) There is appropriated for the above agency from the state general fund for the fiscal year ending June 30, 2015, the following:

Operating expenditures (including official hospitality) \$10,514,755

*Provided, That, during fiscal year 2015, in addition to the other purposes for which expenditures may be made by the above agency from the operating expenditures (including official hospitality) account for fiscal year 2015 as authorized by chapter 136 of the 2013 Session Laws of Kansas, this act or other appropriation act of the 2014 regular session of the legislature, expenditures shall be made by the above agency from the operating expenditures (including official hospitality) account for fiscal year 2015 for aviation research: Provided further, That all amounts expended for aviation research from the operating expenditures (including official hospitality) account for fiscal year 2015 shall be matched by Wichita state university on a \$1 for \$1 basis from other moneys of Wichita state university for the aviation research for which the money is expended: And provided further, That Wichita state university shall submit a plan to the house committee on appropriations and the senate committee on ways and means as to how the aviation research activities create additional jobs for the state for fiscal year 2015: And provided further, That, such expenditures for aviation research shall be in an amount not less than \$5,000,000: And provided further, That, during fiscal year 2015, in addition to the other purposes for which expenditures may be made by the above agency from the operating expenditures (including official hospitality) account for fiscal year 2015 as authorized by chapter 136 of the 2013 Session Laws of Kansas, this act or other appropriation act of the 2014 regular session of the legislature, expenditures shall be made by the above agency from the operating expenditures (including official hospitality) account for fiscal year 2015 for training and equipment expenditures of the national center for aviation training: And provided further, That, such expenditures for such training and equipment expenditures shall be in an amount not less than \$3,500,000.**

(b) On July 1, 2014, of the \$2,981,537 appropriated for the above agency for the fiscal year ending June 30, 2015, by section 170(c) of chapter 136 of the 2013 Session Laws of Kansas from the state economic development initiatives fund in the aviation infrastructure account, the sum of \$2,981,537 is hereby lapsed.

(c) On July 1, 2014, or as soon thereafter as moneys are available, the director of accounts and reports shall transfer \$2,981,537 from the state economic development initiatives fund to the state general fund.

❖ *State reduced WSU's General Fund allotment by 2%. Since funding for the Innovation Campus, NCAT and NIAR Equipment is now part of the State General Fund, these programs were cut by 2% as well. NCAT \$70,000.*

State of Kansas and Wichita State University Purchasing Guidelines

The following is a summary of the Wichita State University purchasing guidelines. Details may be found in chapter 14 of the Wichita State University Policies and Procedures Manual (http://webs.wichita.edu/inaudit/ch_14.htm).

General Purchasing Policies

All purchases of materials and contractual services in the amount of \$5,000 or more will be made by the Office of Purchasing. This office also manages and controls the system for direct departmental purchases less than \$5,000. The Office of Purchasing establishes contractual service agreements for professional services and service maintenance agreements and maintain all statewide open-end contracts. The Office of Purchasing cannot purchase items for individuals for their personal use and as a general policy, no University purchase orders will be awarded to University employees.

State Contracts for Supplies and Services:

Contracts for commonly used equipment, supplies, and services have been developed by the State of Kansas Division of Purchases. A complete listing of state contracts is available at the Office of Purchasing. Copies and updates of these contracts are maintained by the Office of Purchasing and are forwarded to departments expected to have need for the items covered by the contract. State contracts for commonly used equipment and materials must be utilized unless it can be clearly demonstrated that an alternative purchase would be in the best interest of the University. Approval by the Office of Purchasing is required when deviating from this policy, **prior to acquisition**.

Used Equipment:

The University does not generally purchase used equipment. However, if it can be demonstrated that it is advantageous to do so, used equipment may be purchased from an established and reliable vendor of the type of equipment to be purchased. Normal purchase procedures are required for this type of purchase.

Purchases Less Than \$5,000

Many items are required to be purchased using state or local contracts, University sources, Kansas State Use Catalog, or otherwise require advance approval from the University, the Kansas Board of Regents. For those goods and services that are not available from one of the above sources, departments may be authorized to make purchases direct from any vendor when the delivered dollar value of the purchase is less than \$5,000, no additional orders for like products or services will be placed again within 30 days (which would make the overall accumulated purchase exceed the \$5,000 limit), or the purchase of the desired product or service is not otherwise restricted. Departments are responsible for checking to see if their desired purchases are restricted items and are encouraged to contact the Office of Purchasing for help in doing so.

Some contracts allow for an exception to be granted prior to purchase for items that are on contract, but are found at a lower price elsewhere with the same quality and specifications. A Prior Authorization for Off-Contract Purchase form shall be completed by the department and submitted, along with an indication of the funding source, to the Office of Purchasing for consideration. Certain items such as personal computer systems

and certain vendors such as such as those in the Kansas State Use Catalog are not subject to granting of this exception.

The Office of Internal Audit and the Office of Purchasing will conduct periodic audits to determine whether or not items are being purchased that are available from University sources or from state-contracted vendors, unauthorized items are being purchased, and/or purchases are being split up into increments of less than \$5,000 (in order to bypass procedures for larger purchases). They will also check to see how effectively departments are making follow-up inquiries to obtain credit on tax charged by vendors, accurate and prompt notification of items to the University's Accounts Payable Department, and whether adequate departmental control records are being kept. Departmental delegated purchasing authority can and will be revoked by the Director of Purchasing if found to be abused or used irresponsibly.

Purchases Greater Than \$5,000

Competitive bids on purchases of \$5,000 or more, including purchases using research or grant funds, will be obtained by the Office of Purchasing, either by telephone or written request. The processing time for award of a purchase order could be a few days to multiple weeks depending upon the complexity of the purchase. The Office of Purchasing will conduct all negotiations with vendors in cooperation with the respective department. All bids, regardless of the source of funds, that are estimated to be in the amount of \$50,000 or more, must be advertised and open for a minimum of two (2) weeks and processed with the receipt of formal written bids.

Specifications

The Office of Purchasing has authority to challenge an ordering department concerning the quality, quantity, and type of material requested in order to serve the best interests of the University. However, the final decision and the responsibility for justification of the quality and quantity rests with the user department. A department will not be asked to accept inferior products, only to evaluate recommended alternatives.

Preparing Specifications:

Specifications should be developed with the knowledge that a bid shall be awarded to the bidder who submits the lowest price for a good or service that meets the stated specifications with delivery within a time frame that meets the University's need and is reasonable for the particular industry under current market conditions.

In obtaining material or equipment which meets the requirements for performance and quality, the preparation of clear and complete specifications is essential. Specifications may be as simple as a list of requirements that could be described over the telephone, or very complex requiring detailed explanation in writing. Kansas statutes prohibit specifications from being fixed in a manner to effectively exclude any responsible bidder from offering a comparable product or service. The Office of Purchasing will assist in the preparation of specifications upon request.

In general, specifications should be as simple as possible while specific enough to assure that no loophole exists by which a vendor may take advantage of competitors or the buyer. Specify the brand and model number of the desired equipment (e.g, Model 3510D ATT facsimile or equivalent) including the names and model numbers of two or more manufacturers whenever possible. Identify the features and/or characteristics considered

essential to the function or intended use of the product. Flexible specifications allow more competition and better pricing.

Specifications should be edited for nonessential proprietary features or characteristics of the named brands which tend to effectively exclude competition in bidding. Minor deviations in size and operational characteristics from those set forth in the specifications will be considered when such deviations do not deter the user from accomplishing the intended use or function at the desired level of performance.

Ethical Conduct and Vendor Representatives

Departments should always contact more than one vendor whenever possible and be sure to provide each with exactly the same information to obtain multiple price quotes. Inform sales representatives that several sources are being evaluated, but do not discuss the amount budgeted for the purchase or prices offered by competitors. Discuss all aspects of the needed product using a life-cycle approach. Learn about the long-term implications of owning the product with respect to reliability, availability, and cost of maintenance and repairs, operational skills required for its use, trade-in-value of unit at the end of cycle, energy consumption, and other such operating concerns. Have the vendor provide all of the technical information needed to write a complete and detailed specification. Be wary of overreacting to vendor-created crises that call for a hasty decision such as an upcoming price increase or potential stock-out of the desired product and do not offer verbal commitments to buy (the University is committed only by means of an authorized purchase order). The purchase requisition should be submitted as early as possible and should include pertinent information about the suggested vendor such as the name of the company, their representative, address, and telephone and fax number.

Conflict of Interest:

The State of Kansas has statutory laws covering gratuities and conflict of interest which provide that, among other things, no state employee in his or her capacity shall participate in the making of a contract with any person or business with which the employee has a substantial interest. No employee of the State of Kansas may accept gifts, gratuities, or special discounts from persons or firms having business with any state agency or governmental entity. These laws apply to all individuals on the state payroll, regardless of the type of funds used (general use, restricted fees, research, endowment, etc.). Only gifts donated to the University through the WSU Foundation are acceptable.

Externally Sponsored Research Programs

Procurement for externally sponsored research programs must comply with the following: University policies; state or federal laws and regulations; and requirements of the funding source. All procurement for externally sponsored research programs will be processed through the Office of Purchasing. Federal procurement standards¹ and any special constraints imposed by the sponsoring agency must be observed. Expenditures require funding approval from the Office of Research Administration and all applicable research budgets and purchasing requisitions shall be routed through the Office of Research Administration prior to forwarding to the Office of Purchasing.

Ordering From Kansas Correctional Industries and Organizations Listed with the Kansas State Use Catalog

There are a number of products and services available from certain state agencies and organizations listed with the Kansas State Use Catalog. Kansas law mandates that such suppliers be used by other state agencies. If the suppliers are unable to supply the product ordered or cannot meet delivery requirements, the ordering department will be notified immediately and the Office of Purchasing will work with the department to obtain the required statutory exceptions to proceed pursuant to normal purchasing policies and procedures. Departments seeking an exemption for the procurement of consumable supplies or services may do so through the Office of Purchasing on a case-by-case basis. If an exemption is granted, a copy of the written approval must accompany the purchase requisition.

Anti-Kickback

Purpose:

To state University policy with regard to the establishment of procedures designed to prevent and detect possible violations of 41 U.S. Code Sections 51-58 (the Anti-Kickback Act of 1986).

Preamble:

The Anti-Kickback Act of 1986 was passed to deter subcontractors from making payments, and contractors from accepting payments, for the purpose of improperly obtaining or rewarding favorable treatment in connection with a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or service of any kind.

Policy Statement:

1. When the University has reasonable grounds to believe that a violation of the Anti-Kickback Act of 1986 may have occurred, the University shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting department or agency of the United States, the head of the contracting department or agency of the United States if the department or agency does not have an inspector general, or the Department of Justice.
2. The University shall cooperate fully with any Federal agency investigating a possible violation of the Anti-Kickback Act of 1986.
3. The University shall incorporate the following language in all subcontracts entered into by the University to obtain supplies, materials, equipment, or service of any kind in connection with a University contract with a department or agency of the United States that exceed \$100,000.
 - a. When the university has reasonable grounds to believe that a violation of the Anti-Kickback Act of 1986 may have occurred, the university shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting department or agency of the United States, the head of the contracting department or agency of the United States if the

department or agency does not have an inspector general, or the Department of Justice.

- b. The university shall cooperate fully with any Federal agency investigating a possible violation of the Anti-Kickback Act of 1986.
- c. The Contracting Officer may (1) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (2) direct that the Prime Contractor withhold from sums owed a contractor under the prime contract the amount of the kickback. The Contracting Officer may order that monies withheld under subdivision c. (1) of this clause be paid over to the United States Government unless the Government has already offset those monies under subdivision c. (2) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.
- d. The university agrees to incorporate the substance of this clause, including subparagraph d., in all subcontracts under this contract which exceed \$100,000.

Protocol and Timeline for Equipment Expenditures

1. Initial equipment list will be collected by NCAT from WATC, WSU/NIAR and any aviation company which describes specific training needs. This list will be developed prior to each year with the following information:

- (1) Detailed Equipment Description
- (2) Estimated Cost
- (3) Justification for equipment in supporting the training needs of the aviation industry

Timeframe: July / August

2. The equipment list along with an estimated budget for purchasing is sent to WSU for review and approval by the President of WSU (or others representing WSU)

Timeframe: August / September

3. Following the State of Kansas and WSU procurement guidelines, purchases will be made according to the approved equipment list.

Timeframe: September through December

4. SCTETA board meeting to review progress to date and reconciliation of any open action items. Final expenditure plan approved for the existing or anticipated balance of the equipment funds. Draft of the expenditure report to the legislature to be reviewed at that time.

Timeframe: December SCTETA Board Meeting

5. Approval by the President of WSU (or others representing WSU)

Timeframe: following December SCTETA Board Meeting

6. Report prepared and delivered to KS legislature by WSU

Timeframe: January

7. Finalized purchasing per the SCTETA board approved expenditure plan

Timeframe: January through June

8. Updated final report for the SCTETA board and KS legislature

Timeframe: July

Protocol and Timetable for Training Expenditures

1. Initial training list will be collected by NCAT form WATC, WSU/NIAR and any aviation company which describes specific training needs. This list will be developed prior to the first board meeting each year with the following information:
 - a. Detailed training description
 - b. Estimated cost
 - c. Justification for the training needs of the aviation industry

Timeframe: August/September

2. The training list will be combined and summarized prior to the SCTETA board meeting for board members to review prior to the meeting. Training should be prioritized by the aviation industry to fit within the available yearly budget.

Timeframe: September/October

3. The SCTETA board will approve the training expenditure list along with an estimate budget for purchasing.

Timeframe: October/November

4. Approval by WSU president or his/her designee.

Timeframe: November/December

5. Following the State of Kansas, the legislature, and WSU guidelines, the hiring of employees to carry out training functions will include the following:
 - a. A job description
 - b. The job postings
 - c. The number of applications received
 - d. The number of applicants reviewed
 - e. A copy of the offer letter to the person hired

Timeframe: November/December

NCAT 2015 Funds				
Department/Program	Description	Budgeted	Spent	Available
Aerospace Coatings & Paint	FAA Burn Chamber - Install Arch & Engineering	\$ 21,000.00	\$ 21,563.00	\$ (563.00)
	FAA Burn Chamber	\$ 173,935.50	\$ 173,935.50	\$ -
	heat resistant tables and an air flow meter	\$ 6,064.50	\$ 5,796.96	\$ 267.54
	FAA Burn Chamber - Install	\$ 51,500.00	\$ 58,000.00	\$ (6,500.00)
	FAA Burn Chamber - Install Electrical	\$ 6,500.00		\$ 6,500.00
	Sub-total	\$ 259,000.00	\$ 259,295.46	\$ (295.46)

Department/Program	Description	Budgeted	Spent	Available
Aviation Maintenance Technology	2-Diesel Tear Down Engines, Premier Aircraft Sales	\$ 28,000.00	\$ 17,408.85	\$ 10,591.15
	Aircraft Spruce 12 volt Gill lead acid battery	\$ 199.00	\$ 269.14	\$ (70.14)
	Avotek Basic Electricity Panel, 8	\$ 8,677.00	\$ 8,552.00	\$ 125.00
	Avotek Cessna Landing Gear, 10	\$ 14,369.00	\$ 10,724.00	\$ 3,645.00
	Belkin Surge Protector - quantity 125 8' cord for labs	\$ 3,800.00	\$ 3,778.92	\$ 21.08
	Blue Point Top Chest Box	\$ 595.00	\$ 386.75	\$ 208.25
	Daniels Safety Cable Kit .032	\$ 1,349.00	\$ 1,322.11	\$ 26.89
	Fuel Strainer Kits, Spruce and Specialty	\$ 6,790.00	\$ 8,336.90	\$ (1,546.90)
	Grainger 4 Shelf Wire Cart for Lab	\$ 1,047.00	\$ 942.30	\$ 104.70
	Grainger Book Cases, 6 for Classroom	\$ 2,273.00	\$ 2,045.28	\$ 227.72
	Solution Mobile Shelving Unit, tool crib	\$ 50,899.00	\$ 50,899.00	\$ -
	ATP B225 Cessna 404,411,414 Renewal	\$ 1,100.00	\$ 7,124.00	\$ (6,024.00)
	ATP BCX USARL, Raytheon Renewal	\$ 750.00		\$ 750.00
	ATP Cessna 100 Series Airframe BVGA Digital	\$ 3,500.00		\$ 3,500.00
	ATP FFX US Regulatory Renewal	\$ 375.00		\$ 375.00
	ATP Hartzell Propeller BNR Library	\$ 425.00		\$ 425.00
	ATP Lycoming 4, 6 Cylinder Library BY1,105	\$ 600.00		\$ 600.00
	ATP McCauley Propeller Software Renewal	\$ 550.00		\$ 550.00
	BPAK Piper PA31-300,310,325,Navajo PS31-350	\$ 750.00		\$ 750.00
	Sub-total	\$ 126,048.00	\$ 111,789.25	\$ 14,258.75

Department/Program	Description	Budgeted	Spent	Available
Avionics	Electronic Solder Suckers	\$ 750.00	\$ 220.33	\$ 529.67
	Xtronic 8080 Hot Rework Solder Stations	\$ 3,000.00	\$ 2,547.00	\$ 453.00
	IPC Soldering Certification Course	\$ 4,100.00	\$ -	\$ 4,100.00
	Multi Sim License Renewal, National Instruments	\$ 1,100.00	\$ 1,046.00	\$ 54.00
	Flammable Safety Cabinet	\$ -	\$ 1,118.70	\$ (1,118.70)
	Sub-total	\$ 8,950.00	\$ 4,932.03	\$ 4,017.97

Department/Program	Description	Budgeted	Spent	Available
Composites	0.3 HP Angle Die Grainger, Snap-On quantity of 30	\$1,110	\$ 1,042.92	\$ 67.08
	Autoclave Fittings AQD 500TF 1/4" quick disc	\$2,000	\$ 1,989.14	\$ 10.86
	Dry Fire Sprinkler System Composite Freezer - 2	\$9,000	\$ 3,595.00	\$ 5,405.00
	Full City Electric Install & Reloc of conduits in lab	\$750	\$ -	\$ 750.00
	Gold Service Plan for ASC 6'X12' and 3'X6' Autoclaves	\$30,000	\$ -	\$ 30,000.00
	Grainger Double Door Steel Tool Boxes 21006	\$12,000	\$ 13,013.04	\$ (1,013.04)
	Nitrogen Storage Tank - Larger Size	\$12,750	\$ -	\$ 12,750.00
	Outdoor Freezer	\$75,000	\$ -	\$ 75,000.00
	Shear, 10 In L, Bent, Sharp, Silver, quantity of 5	\$341	\$ 306.45	\$ 34.55
	Wet/Dry Vacuum, 6 HP, 14 gal., 120 V, Grainger, 2	\$432	\$ 353.84	\$ 78.16
	ASC Controls Retrofit for West Oven	\$ -	\$ 108,592.60	\$ (108,592.60)
	Install for West oven air lines	\$ -	\$ 525.00	\$ (525.00)
	Vacuum Pump & Required Accessories	\$ -	\$ 5,991.48	\$ (5,991.48)
	Gerber ply cutter cutting surfaces	\$ -	\$ 2,519.08	\$ (2,519.08)
	Impact Driver and Drill Kit	\$ -	\$ 282.32	\$ (282.32)
	Particle count and monitoring kit	\$ -	\$ 4,781.24	\$ (4,781.24)
	Temperature Logger and NIST traceable certificate	\$ -	\$ 605.00	\$ (605.00)
	Sub-total	\$143,383	\$ 143,597.11	\$ (214.11)

Department/Program	Description	Budgeted	Spent	Available
IT	HD Webcams and microphones to NCAT Classrooms	\$26,000	\$ 26,516.40	\$ (516.40)
	Replace 120 out of warranty NCAT laptops	\$180,000	\$ 189,850.00	\$ (9,850.00)
	Replace & Upgrade 14 NCAT Classroom Projectors	\$49,500	\$ 49,500.00	\$ -
	Upgrade 65 projectors/displays w/Hi-Def Web Cams Replace out of warranty DELL R710 NCAT Data Center Servers with Blades	\$160,000	\$ 7,347.70	\$ 152,652.30
	Blade Server Operating System	\$100,000	\$ 25,222.64	\$ 74,777.36
	The blade server quote and operating system is a bundle that includes a group of servers that run our entire network.	\$ -	\$ 88,245.40	\$ (88,245.40)
	Blade Server Operating System	\$ -	\$ 18,691.00	\$ (18,691.00)
	Blade Server Storage	\$ -	\$ 29,082.00	\$ (29,082.00)
	Netapp Storage	\$ -	\$ 97,576.00	\$ (97,576.00)
	Server load is 2 appliances (Servers) that direct network traffic to multiple servers.	\$ -	\$ 50,000.00	\$ (50,000.00)
	Firewall upgrade	\$ -	\$ 29,378.00	\$ (29,378.00)
	Computer lab systems are 30 HP desktop PC's for the CATIA classroom.	\$ -	\$ 36,750.00	\$ (36,750.00)
	Video Cards	\$ -	\$ 4,500.00	\$ (4,500.00)
	Sub-total	\$515,500	\$ 652,659.14	\$ (137,159.14)

Department/Program	Description	Budgeted	Spent	Available
Engineering Design Technology	3D Printer - MakerBot Replicator 2	\$5,000	\$ 15,328.00	\$ (10,328.00)
	Dimension Printer Service Plan	\$5,950	\$ 6,525.00	\$ (575.00)
	Epilog Helix Fusion Laser Engraver	\$80,000	\$ 37,295.00	\$ 42,705.00
	Objet 3D Printer Service Plan	\$10,395	\$ 26,508.00	\$ (16,113.00)
	Roland LPX 1200 DS Laser Scanner	\$20,000	\$ -	\$ 20,000.00
	Roland Vinyl Cutter - GX-500	\$6,000	\$ 5,161.70	\$ 838.30
	Romer Arm Training	\$7,000	\$ 1,720.00	\$ 5,280.00
	Sub-total	\$134,345	\$ 92,537.70	\$ 41,807.30

Department/Program	Description	Budgeted	Spent	Available
Manufacturing/	IND 102 Manufacturing Overview Learning System	\$ 11,300.00	\$ 61,440.00	\$ (50,140.00)
Electromechanical	Software for IND131 Siemens PLC Trainers		\$ 6,005.00	\$ (6,005.00)
	IND 106 DC/AC Current Labs	\$ 66,646.00	\$ 51,761.95	\$ 14,884.05
	IND 106 DC/AC Current Labs - ELECTRICAL		\$ 1,459.00	\$ (1,459.00)
	IND 106 DC/AC Current Labs - Meters	\$ 3,354.00	\$ 2,764.00	\$ 590.00
	IND 106 Transformer Labs	\$ 13,533.00	\$ 8,241.75	\$ 5,291.25
	IND 108 Industrial Wiring Lab Ladders	\$ 2,200.00	\$ 470.00	\$ 1,730.00
	IND 108 Industrial Wiring Labs	\$ 75,962.00	\$ 100,125.00	\$ (24,163.00)
	IND 108 Industrial Wiring Labs - ELECTRICAL		\$ 5,958.00	\$ (5,958.00)
	IND 110 Industrial Motor Training Systems	\$ 35,438.00	\$ 22,566.77	\$ 12,871.23
	IND 112 Industrial Controls Training Systems	\$ 58,446.00	\$ 21,353.00	\$ 37,093.00
	IND112 Industrial Controls Training Systems		\$ 7,616.46	\$ (7,616.46)
	IND 112 Industrial Controls Training Systems - ELECTRICAL		\$ 4,548.60	\$ (4,548.60)
	IND112 Patch cords and builds for trainers		\$ 12,019.89	\$ (12,019.89)
	IND 113 Digital and Solid State Device Labs	\$ 67,654.00	\$ 12,011.55	\$ 55,642.45
	IND 114 Magnetic Starters and Braking Labs	\$ 22,900.00	\$ 64,810.35	\$ (41,910.35)
	IND 117 Variable Speed Motor Control AC	\$ 25,200.00	\$ 49,913.80	\$ (24,713.80)
	IND 117 Variable Speed Motor Control AC - ELECTRICAL		\$ 1,644.30	\$ (1,644.30)
	IND 117 Variable Speed Motor Control DC	\$ 51,679.00	\$ 16,869.60	\$ 34,809.40
	IND 119 - Dual Head Level System	\$ 11,950.00	\$ 12,835.78	\$ (885.78)
	IND 119 - Reinshaw XL80 Adv Laser Cal Sys	\$ 54,250.00	\$ 56,185.37	\$ (1,935.37)
	IND 119-Reinshaw Lathe & Small Dia. Adapt.	\$ 1,950.00	\$ 1,930.48	\$ 19.52
	IND 121 Maintenance for Reliability Labs	\$ 125,068.00	\$ 63,428.00	\$ 61,640.00
	Mechanical drive labs		\$ 24,914.67	\$ (24,914.67)
	IND 121 Maintenance for Reliability Labs - ELECTRICAL		\$ 3,288.60	\$ (3,288.60)
	IND 123 Industrial Fluid Power & Pneumatics	\$ 126,798.00	\$ 8,981.60	\$ 117,816.40
	IND 123 Industrial Fluid Power & Pneumatics - ELECTRICAL		\$ 6,641.00	\$ (6,641.00)
	IND 125 Industrial Computer Applications	\$ 13,521.00	\$ 22,675.00	\$ (9,154.00)
	IND 130 Industrial Mechanical Labs	\$ 69,198.00	\$ 146,589.60	\$ (77,391.60)
	IND 130 Industrial Mechanical Labs Bench Vises	\$ 2,000.00		\$ 2,000.00

	IND108IndustrialWiringLabs-Components w/outframe	\$ 75,962.00	\$ 71,286.65	\$ 4,675.35
	IND119 -Dial Calipers, Micrometers-tools	\$ 1,800.00	\$ 302.07	\$ 1,497.93
	IND125 A+ Certification exams (2) & course	\$ 3,750.00		\$ 3,750.00
	Storage Cabinet for Circuit Boards	\$ 1,267.00	\$ 2,428.32	\$ (1,161.32)
	9DY21 High-Capacity Storage Rack		\$ 1,628.10	\$ (1,628.10)
	Install 7 120/208 volt 5-wire 3 phase pendand drips in D-6 for the Industrial Controls Training Systems ordered from ECI		\$ 4,989.00	\$ (4,989.00)
	50% of salary and benefits – faculty member	\$ 37,145.00	\$ 33,737.34	\$ 3,407.66
	I/O Interfaces (4), DC Power supplies (4), Student manuals (8), Instructor manual (1)		\$ 2,760.00	\$ (2,760.00)
	Sub-total	\$ 958,971.00	\$ 916,180.60	\$ 42,790.40

Department/Program	Description	Budgeted	Spent	Available
Manufacturing/	CNC Tooling for Rapid Prototyping finishing work	\$10,000	\$ 2,111.99	\$ 7,888.01
Design Technology	Retro reflective tools	\$10,000	\$ 1,644.85	\$ 8,355.15
	Robotic Tools such as sockets and screwdrivers (Sets and Kits)	\$55,000	\$ 5,620.48	\$ 49,379.52
	Robot Fixturing	\$180,000	\$ 10,493.41	\$ 169,506.59
	Shop Floor Coordinate Measuring Machine	\$60,000	\$ 2,508.00	\$ 57,492.00
	TProbe, TScan & TCam	\$0	\$ 235,365.98	\$ (235,365.98)
	3DP1000-BB2-0000-0 Fully Assembled printer	\$ -	\$ 21,544.00	\$ (21,544.00)
	Robot Reels	\$ -	\$ 3,197.04	\$ (3,197.04)
	Turntable for Robot	\$ -	\$ 28,003.00	\$ (28,003.00)
	Sub-total	\$315,000	\$ 310,488.75	\$ 4,511.25

Department/Program	Description	Budgeted	Spent	Available
Machining	1-2-3 Block (30)	\$ 600.00	\$ 1,334.70	\$ (734.70)
	Air Angle Grinder (2)	\$ 240.00	\$ -	\$ 240.00
	Air Die Grinder (2)	\$ 240.00	\$ -	\$ 240.00
	Countersink - 7/8" for NIMS M Mill Part (12)	\$ 600.00	\$ -	\$ 600.00
	Cutting Tool Vending Machine w/Cribmaster Software	\$ 15,000.00	\$ -	\$ 15,000.00
	Fixtures for Surface Plate	\$ 3,000.00	\$ 1,772.80	\$ 1,227.20
	Heat Shrink Tooling Machine	\$ 4,000.00	\$ 16,080.00	\$ (12,080.00)
	Horizontal Band Saw	\$ 5,000.00	\$ 2,034.00	\$ 2,966.00
	Pallet Jack	\$ 531.00	\$ -	\$ 531.00
	Parts Tumbler	\$ 2,000.00	\$ 1,056.99	\$ 943.01
	Parts Tumbler Media (4)	\$ 160.00	\$ 131.36	\$ 28.64
	Shrink Fit Tool Holders (80)	\$ 6,000.00	\$ 2,644.56	\$ 3,355.44
	Tool Presetter	\$ 7,000.00	\$ 9,419.85	\$ (2,419.85)
	TV/Video Presentation Equipment	\$ 2,000.00	\$ -	\$ 2,000.00
	Video Card for Instructor Computer	\$ 200.00	\$ -	\$ 200.00
	Video Card for Lab Computers (24)	\$ 4,800.00	\$ -	\$ 4,800.00
	Software	\$ -	\$ 2,400.00	\$ (2,400.00)
	Training	\$ -	\$ 3,380.00	\$ (3,380.00)
	50% salary and benefits	\$ 37,145.00	\$ 30,705.70	\$ 6,439.30
	Sub-total	\$ 88,516.00	\$ 70,959.96	\$ 17,556.04

Department/Program	Description	Budgeted	Spent	Available
Mfg. Robotics	2 DEPCO Mechanical Systems	\$ 27,000.00	\$ 26,962.00	\$ 38.00
	3 Tear-apart Motoman Controllers	\$ 107,000.00	\$ 108,478.83	\$ (1,478.83)
	4 Amatrol Hydraulic/Pneumatic System Labs	\$ 86,000.00	\$ 86,622.00	\$ (622.00)
	6 Motoman motors for replacement & Harness labs	\$ -	\$ -	\$ -
	7 Motoman Internal Harnesses for Replacement Labs	\$ -	\$ -	\$ -
	KUKA Robot Training System(s)	\$ 300,000.00	\$ 234,688.00	\$ 65,312.00
	KuKa Robot Training System(s) INSTALL	\$ -	\$ 2,928.00	\$ (2,928.00)
	Kuka Robot parts (Electrical parts for a KUKA robot)	\$ -	\$ 12,910.51	\$ (12,910.51)
	Kuka Robot Safety	\$ -	\$ 48.03	\$ (48.03)
	Kuka Robot Safety	\$ -	\$ 530.20	\$ (530.20)
	Kuka Parts (robotic tool changers)	\$ -	\$ 39,557.97	\$ (39,557.97)
	Nova Pistol Grip tools		\$ 375.53	\$ (375.53)
	Motoman MERIT Qualifications	\$ -	\$ -	\$ -
	10 perpetual licenses K-Roset simulation software	\$ 30,000.00	\$ 27,050.00	\$ 2,950.00
	15 license upgrades of Micrologix500 & 5000 PLC	\$ -	\$ -	\$ -
	Kuka Training System.	\$ 22,000.00	\$ -	\$ 22,000.00
	Spindle Motors	\$ -	\$ 15,575.00	\$ (15,575.00)
	HSK 63F x ER 32 Tool Holders, ER 32 Collet (11 pc) Set, Additional Collet (6 pc) Set, HSK 63F Drill Chuck	\$ -	\$ 2,170.50	\$ (2,170.50)
	US2R - .401 Shank " RECOILLESS" Rivet Gun Capacity 5/32"-1/8"	\$ -	\$ 1,020.01	\$ (1,020.01)
	Servo Motors and Controllers	\$ -	\$ 7,220.58	\$ (7,220.58)
	Reimbursement to WSU for 50% of 2 faculty salary/benefits	\$ 97,891.00	\$ 98,633.00	\$ (742.00)
	Sub-total	\$ 669,891.00	\$ 664,770.16	\$ 5,120.84

Department/Program	Description	Budgeted	Spent	Available
Mfg. Welding	Miller Dynasty 350 Welder & accessories	\$ 7,562.00	\$ 7,704.67	\$ (142.67)
	RealityWorks Welding Helmets (10) Miller Invision MPA Plus System Mig Runner & Millermatic 350P Alum. Pro Push-Pull Gun Alum. System	\$ 35,000.00	\$ 26,598.20	\$ 8,401.80
	VIC Cutting Machine VCM200, VIC Track 9' section and VIC Flame Buster R/Reg Pair Pak		\$ 2,815.90	\$ (2,815.90)
	9 yr Recertification for CWI for Faculty (1)	\$ 1,000.00	\$ 865.00	\$ 135.00
	50% salary and benefits	\$ 37,145.00	\$ 30,785.56	\$ 6,359.44
	Sub-total	\$ 80,707.00	\$ 68,769.33	\$ 11,937.67

Department/Program	Description	Budgeted	Spent	Available
Nondestructive Testing	Aquamax Coulometric Karl Fischer Tirator	\$ 6,500.00	\$ -	\$ 6,500.00
	Eddy Current Probes, Olympus	\$ 3,000.00	\$ 6,500.00	\$ (3,500.00)
	Phased Array and Crack Sizing	\$ -	\$ 7,630.00	\$ (7,630.00)
	Infrared Test Stand	\$ 4,000.00	\$ -	\$ 4,000.00
	Lube Basis for Machine Operators Video, Training	\$ 395.00	\$ 416.00	\$ (21.00)
	Lube Fundamentals Video, Training Material	\$ 395.00	\$ -	\$ 395.00
	RDE Atomic Emission Spectrometer	\$ 80,000.00	\$ 77,730.00	\$ 2,270.00
	Tube Test Stand	\$ 4,000.00	\$ -	\$ 4,000.00
	Ultrasonic Transducers, Olympus	\$ 3,000.00	\$ -	\$ 3,000.00
	XRays Safety Training	\$ 795.00	\$ 804.39	\$ (9.39)
	Infrared Training DVD's, 3	\$ 889.00	\$ 1,658.74	\$ (769.74)
	NDT Program Conversion to Online	\$ 20,000.00	\$ -	\$ 20,000.00
	Oil Analysis Training DVD, Dupont	\$ 495.00	\$ -	\$ 495.00
	Oil Analysis Training DVD, Dupont, Program	\$ 495.00	\$ -	\$ 495.00
	Sub-total	\$ 123,964.00	\$ 94,739.13	\$ 29,224.87

Department/Program	Description	Budgeted	Spent	Available
Misc	Granite Shop grade square		\$1,487.29	\$ (1,487.29)
	National Instruments Corp / Software		\$1,098.40	\$ (1,098.40)
	Basic Radar System		\$1,695.69	\$ (1,695.69)
	Reduction in funds	\$ (70,000.00)		\$ (70,000.00)
				\$ -
				\$ -
				\$ -
	Sub-total	\$ (70,000.00)	\$4,281.38	\$ (74,281.38)

Department/Program	Description	Budgeted	Spent	Available
WSU	1% Administrative Fee to WSU for Purchasing	\$35,000.00	\$ 35,000.00	\$0.00
Contingency	Contingency Fund for Freight, Shipping and Handling (1%)	\$40,725.00		\$40,725.00
	Sub-total	\$75,725.00	\$ 35,000.00	\$ 40,725.00
		3,430,000.00	\$ 3,430,000.00	\$ 0.00

- ❖ *State reduced WSU's General Fund allotment by 2%. Since funding for the Innovation Campus, NCAT and NIAR Equipment is now part of the State General Fund, these programs were cut by 2% as well. NCAT \$70,000.*

NCAT: State Allocation, FY 2016

FY16 NCAT State Allocation by Program

Category	Budget	Percent of Total
Assembly Mechanic	\$27,395	1%
Aviation Maintenance Technology	\$53,279	2%
Avionics	\$129,657	4%
Composites	\$12,754	0%
Engineering Design Technology	\$428,000	13%
Industrial Automation	\$54,150	2%
IT	\$847,000	27%
Machining	\$92,111	3%
Nondestructive Testing	\$273,000	8%
Advanced Painting and Coating	\$116,500	3%
Robotics	\$918,000	29%
Welding	\$223,610	7%
Budget Total	\$3,175,456	99%
1% Administrative Fee to WSU for Purchasing	35,000	1%
Contingency Fund for Freight, Shipping and Handling	\$289,544	9%

Table 1. Budget Detail by Program: Assembly Mechanic

Department / Program	Category	Description	Budget
Assembly Mechanic	Equipment	Vertical Band Saw	\$6,752.00
	Equipment	Band Saw Blades	\$ 579.00
	Equipment	Band Saw Blades	\$ 579.00
	Equipment	Band Saw Blades	\$ 579.00
	Equipment	Band Saw Blades	\$ 579.00
	Equipment	Nut Jig Plate	\$1,152.00
	Equipment	Ergo Step Stools	\$6,000.00
	Equipment	Locking C Clamp	\$ 191.00
	Equipment	Pin Punch Set	\$1,430.00
	Equipment	3/32 Punch	\$ 314.00
	Equipment	Winslow	\$6,840.00
	Equipment	Winslow-Rebuilt	\$1,650.00
	Equipment	Winslow Bits	\$ 750.00
Equipment Subtotal: \$27,395			
Assembly Mechanic Subtotal: \$27,395			

Table 2. Budget Detail by Program: Aviation Maintenance Technology

Department / Program	Category	Description	Budget
Aviation Maintenance Technology	Equipment	Dewalt Scroll Saw	\$ 1,030.00
	Equipment	Scroll saw blades	\$ 79.00
	Equipment	Coupling V-Band	\$ 451.00
	Equipment	Clamp, T-bolt	\$ 339.00
	Equipment	Hose, Air box 3.0 OID	\$ 520.00
	Equipment	G-246 Gill Battery	\$ 470.00
	Equipment	RG24-20 Concorde Battery	\$ 722.00
	Equipment	Resharpenable Scissors	\$ 1,599.00
	Equipment	Gill G6381E Battery	\$ 2,303.00
	Equipment	Go Fan Yourself 24' Lg Diameter Fans	\$23,011.00
	Equipment	Turbo Engine charger	\$11,420.00
	Equipment	Turbo Engine-rebuilt	\$ 3,135.00
	Equipment	ATP B225 Cessna 404, 411, 414	\$ 1,100.00
	Equipment	ATP BCS USARL, Raytheon Renewal	\$ 750.00
	Equipment	ATP Cessna 100 Series Airframe BVGA Digital	\$ 3,500.00
	Software	ATP FFX US Regulatory Renewal	\$ 375.00
	Equipment	ATP Hartzell Propeller BNR Library	\$ 425.00
	Equipment	ATP Lycoming 4, 6 cylinder Library BY1, 105	\$ 600.00
	Software	ATP McCauley Propeller Software Renewal	\$ 550.00
	Equipment	ATP Bpak Piper PA31-300, 310, 325 Navajo PS31-350	\$ 900.00
Equipment Subtotal: \$52,354			
Software Subtotal: \$925			
Aviation Maintenance Technology Subtotal: \$53,279			

Table 3. Budget Detail by Program: Avionics

Department / Program	Category	Description	Budget
Avionics	Equipment	Basic Radar System	\$129,257.00
	Equipment	Spool Cart	\$ 400.00
Equipment Subtotal: \$129,657			
Avionics Subtotal: \$129,657			

Table 4. Budget Detail by Program: Composites

Department/ Program	Category	Description	Budget
Composites	Equipment	Male & Female Disconnect 1/4"	\$1,620.00
	Equipment	8' Autoclave Vacuum Hose	\$1,080.00
	Equipment	12' Autoclave Vacuum Hose	\$1,620.00
	Equipment	16' Autoclave Vacuum Hose	\$2,160.00
	Equipment	Chest Freezer, 14.7 Cu Ft.	\$ 804.00
	Equipment	Heat Gun, 750 to 1000F, 14.5A 23cfm Master Appliance	\$ 671.00
	Equipment	Pin/Pinless Deep Sensing Moisture Meter	\$ 199.00
	Equipment	Carbide Tipped band saw blade 13'x3"	\$ 600.00
	Equipment	Oil Analysis Calibration Standards	\$4,000.00
Equipment Subtotal: \$12,754			
Composites Subtotal: \$12,754			

Table 5. Budget Detail by Program: Engineering Design Technology

Department / Program	Category	Description	Budget
Engineering Design Technology	Equipment	Various 3D Printing Machines	\$ 30,000.00
	Equipment	Fortus 900MC	\$250,000.00
	Equipment	Metallic Printer Accessories	\$ 20,000.00
	Equipment	Fortus 250	\$ 50,000.00
	Equipment	Copier for Design Program	\$ 3,000.00
	Equipment	Romer Arm	\$ 50,000.00
	Equipment	Desk Top 3D Printers	\$ 25,000.00
Equipment Subtotal: \$428,000.00			
Engineering Design Technology Subtotal: \$428,000.00			

Table 6. Budget Detail by Program: Industrial Automation.

Department / Program	Category	Description	Budget
Industrial Automation	Software	Update and increase the number of Siemens & Allen Bradley software licenses to meet forecasted increased enrollment	\$20,000.00
	Professional Development	On-site training for faculty on lab equipment	\$20,000.00
	Equipment	Tool Storage	\$ 2,650.00
	Equipment	Precision Granite Master Square	\$11,500.00
Equipment Subtotal: \$14,150			
Professional Development Subtotal: \$20,000			
Software Subtotal: \$20,000			
Industrial Automation Subtotal: \$54,150			

Table 7. Budget Detail by Program: IT

Department / Program	Category	Description	Budget
IT	Equipment	Replace end of life NCAT classroom lab projectors	\$ 30,000.00
	Equipment	Ellucian Banner Recruiter and Pilot Software to recruit and retain NCAT students	\$291,000.00
	Equipment	Replace out of warranty CATIA workstation computers	\$216,000.00
	Equipment	Replace end of life NCAT router/core switch/ASA equipment upgrade to 100 gigabit	\$140,000.00
	Equipment	Audio/Video upgrades to classrooms	\$ 80,000.00
	Equipment	NCATA storage are network 120 terabyte Phase II expansion for classrooms	\$ 90,000.00
Equipment Subtotal: \$847,000			
IT Subtotal: \$847,000			

Table 8. Budget Detail by Program: Machining

Department / Program	Category	Description	Budget
Manufacturing/ Machining	Equipment	Shop Floor CMM	\$60,000.00
	Equipment	DeWalt Circular Saw Blade, Aluminum, 14"	\$ 658.00
	Professional Development	NIMS Accreditation and Credentialing	\$ 5,000.00
	Equipment	Black Diamond Drum Spill Containment Pallet	\$ 350.00
	Equipment	Pocket Surface Finish Comparator	\$ 108.00
	Equipment	Surface Finish Comparator	\$ 167.00
	Equipment	Groove Micrometer	\$ 201.00
	Equipment	Point Micrometer	\$ 75.00
	Equipment	Point Micrometer	\$ 213.00
	Equipment	Band Saw Blade Welder	\$ 1,046.00
	Equipment	Inspection Surface Blade	\$ 144.00
	Equipment	1/4-20 2A Go/No Go Gauges	\$ 148.00
	Equipment	HAAS Oil Skimmer	\$ 4,000.00
	Equipment	Maintenance/Service	\$20,000.00
Equipment Subtotal: \$87,110			
Professional Development: \$5,000			
Machining Subtotal: \$92,110			

Table 9. Budget Detail by Program: Non Destructive Testing

Department / Program	Category	Description	Budget
Non Destructive Testing	Equipment	Oil Analysis Replacement Parts	\$ 4,000.00
	Equipment	ET & UT Probes, transducers and standards	\$ 8,000.00
	Equipment	Vibration Probes & Standards	\$ 4,000.00
	Equipment	Training material	\$ 4,000.00
	Equipment	Infrared Camera	\$20,000.00
	Equipment	Vibration Data Collectors	\$20,000.00
	Equipment	Shaft Laser Assignment	\$20,000.00
	Equipment	MCE Motor Analyzer	\$50,000.00
	Equipment	Eddy Current Instruments	\$18,000.00
	Equipment	Ultrasonic Equipment	\$20,000.00
	Equipment	Ultrasonic Equipment	\$20,000.00
	Equipment	Ultrasonic Equipment	\$20,000.00
	Equipment	Ultrasonic Equipment	\$20,000.00
	Equipment	Ultrasonic Equipment	\$20,000.00
	Equipment	X-Ray Film Processor	\$15,000.00
	Equipment	Airborne Ultrasound Kits	\$10,000.00
Equipment Subtotal: \$273,000			
Non Destructive Testing: \$273,000			

Table 10. Budget Detail by Program: Advanced Painting and Coatings

Department / Program	Category	Description	Budget
Advanced Painting and Coating	Equipment	Microscope Sample Prep Automatic Polisher	\$ 15,000.00
	Equipment	3D Virtual Paint System – Sim Spray	\$ 55,000.00
	Equipment	Manual Spray Guns	\$ 1,500.00
	Equipment	Stereo Microscope with Accessories	\$ 45,000.00
Equipment Subtotal: \$116,500			
Non Destructive Testing: \$116,500			

Table 11. Budget Detail by Program: Robotics

Department / Program	Category	Description	Budget
Robotics	Equipment	Baxter Robots	\$ 80,000.00
	Equipment	Presentation System in Robotics	\$ 12,000.00
	Equipment	Automation Components	\$ 50,000.00
	Equipment	Pneumatic / Automatic Robotic Fixturing	\$ 20,000.00
	Equipment	Electronic Locks / Prowatch	\$200,000.00
	Equipment	Set, Air Tools	\$ 6,000.00
	Professional Development	Curriculum Development	\$ 50,000.00
	Equipment	Small Robot End Effectors	\$ 25,000.00
	Equipment	Universal Robot / Kuka Universal Robot	\$ 80,000.00
	Equipment	Small Fanuc Robot	\$ 35,000.00
	Equipment	NAO Evolution Robots (2)	\$ 16,000.00
	Equipment	Medium, Portable ABB Robot	\$ 60,000.00
	Professional Development	Robotics salary to NIAR	\$ 60,000.00
	Software	15 renewal seats of Fanuc Rob guide	\$ 6,000.00
	Software	15 renewal seats for accessing Fanuc	\$ 4,000.00
	Equipment	Pneumatic/Automatic Robotic Fixturing	\$ 14,000.00
	Equipment	Robotics equipment maintenance parts	\$ 10,000.00
	Equipment	Pneumatic Automation Components	\$ 50,000.00
	Equipment	Electrical Automation Components	\$ 50,000.00
	Equipment	Vex and Mindstorm Automation Kits	\$ 10,000.00
	Equipment	Safety Scanners	\$ 70,000.00
	Equipment	Floor Cable Protectors	\$ 10,000.00
Equipment Subtotal: \$808,000			
Professional Development Subtotal: \$110,000			
Robotics Subtotal: \$918,000			

Table 12. Budget Detail by Program: Welding

Department / Program	Category	Description	Budget
Welding	Equipment	Three Wheel Belt Grinder Model 760 2"x 60"	\$ 4,212.00
	Equipment	Disk Sander on Pedestal Burr King 20"	\$ 8,879.00
	Equipment	Vertical Band Saw, Dry, 230V, 2 HP	\$ 7,499.00
	Equipment	D1.1D.1.M:2010 (2nd Printing) Structural	\$ 416.00
	Equipment	Welders Angle Clamps-2 Axis Fixture Vises	\$ 6,798.00
	Equipment	Centaur Swage Block B	\$ 470.00
	Equipment	1 ton capacity Telescoping Gantry Crane	\$ 1,370.00
	Equipment	50 ton Hydraulic Shop Press	\$ 1,090.00
	Equipment	Seigmund Welding Table, 78" x 39"	\$41,808.00
	Equipment	Seigmund Welding Table, 78" x 78"	\$10,768.00
	Equipment	Seigmund Table 115 piece Fixturing Kit	\$30,400.00
	Equipment	Seigmund Table 131 piece Fixturing Kit	\$24,900.00
	Equipment	Lab Tool Storage	\$20,000.00
	Equipment	Band Saws	\$ 4,000.00
	Equipment	Plannishing Hammer	\$14,500.00
	Equipment	Die for Bette bender break	\$ 500.00
	Equipment	Water jet Software upgrade	\$50,000.00
	Equipment	Tensil Tester	\$ 6,000
Equipment Subtotal: \$183,610			
Software Subtotal: \$50,000			
Welding Subtotal: \$233,610			