

BOARD OF REGENTS
for
KENTUCKY STATE UNIVERSITY



Special Called Meeting of the Board of Regents

Monday, February 20, 2023
11:00 a.m. EST

Julian M. Carroll Academic Services Building, 2nd Floor
400 East Main Street
Frankfort, Kentucky 40601

**KENTUCKY STATE UNIVERSITY BOARD OF REGENTS
SPECIAL CALLED MEETING**

***** Meeting Will be Conducted in Person and by Teleconference *****

Monday, February 20, 2023

11:00 a.m. EST

**Board of Regents Room
Julian M. Carroll Academic Services Building, 2nd Floor
400 East Main Street
Frankfort, Kentucky 40601
(Primary Physical Location)**

Zoom Link: <https://kysu.zoom.us/j/97736375189>

Webinar ID: 977 3637 5189

One Tap Mobile: US: +13052241968,,97736375189# or +13092053325,,97736375189#

AGENDA

- | | |
|---|--|
| 1. Call to Order | Dr. Gerald W. Patton
Board Chair |
| 2. Roll Call | Mr. Zachary Atwell
Board Secretary and
Deputy General Counsel |
| 3. Approval of Agenda | Chair Patton |
| 4. Information Items | |
| A. Update on Management Improvement Plan | Mr. Travis Powell
Vice President and
General Counsel, CPE |
| B. Information on Kentucky JROTC Director of Army
Instructions (DAI) Pilot Program | Dr. Ronald A. Johnson
Interim President |
| C. Update on FY 23 Finances | Dr. Daarel Burnette
Interim Executive VP,
Finance & Business Affairs, and
Chief of Staff |
| D. Report on HEERF Funds | Mr. Harry N. Dodson
U.S. Army Cadet Command |
| | VP Burnette |
| | VP Burnette |

E. Report on Student Enrollment

Dr. Bridgett Golman
Interim VP for Student Engagement
& Campus Life

F. Report on Scholarships

VP Golman

5. Action Items

A. Approval to Purchase a Thermo Fisher Scientific
Apreo 2 S LoVac Scanning Electron Microscope

Dr. Kirk Pomper
Director of Land Grant Programs

B. Approval of Pending Personnel Actions

VP Burnette

C. Approval of Head Football Coach Contract

VP Burnette

6. Closed Session

A. Pending Litigation (KRS 61.810(1)(c))

B. Individual Personnel Matters (KRS 61.810(1)(f))

7. Public Action(s)

A. Approval of Legal Action(s) or Settlement(s)

Chair Patton

8. Closing Remarks

Chair Patton

9. Adjournment

Chair Patton



7th "Bold Warrior" Brigade



**Kentucky JROTC Director of Army
Instructions (DAI) Pilot Program**



Agenda



-
- KY JROTC DAI Overview
 - Mission/Org Chart
 - Proposed DAI Footprint
 - Proposed DAI Locations
 - DAI Pro/Con
 - Assistance Required
 - Final Comments



KY JROTC DAI Overview



Current Environment: The State of Kentucky currently has 62 stand-alone JROTC programs. One DAI authorized but not utilized. DAI requires 5 JROTC Programs in one School District. Without a DAI shop, there is inadequate oversight of program operations. Areas of concern consist of JROTC Program Accreditation (JPA), Cadre misconduct, Property accountability, Cadet and Cadre retention, and Cadet progression in JROTC.

Proposed Solution: Adopt a State DAI Shop which will provide oversight and command and control. The Kentucky State DAI will have East and West Regions providing standardization and continuity of curriculum through regular touchpoints with JROTC programs.

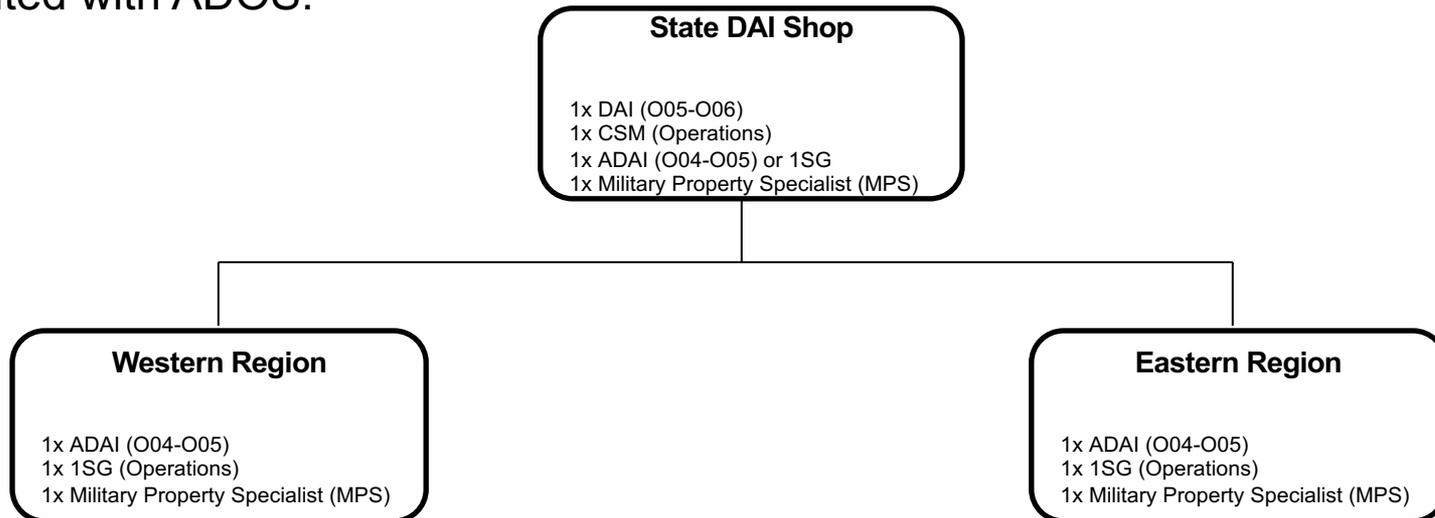


JROTC DAI Mission and Org Chart



DAI Mission Statement: Director Of Army Instruction (DAI) will ensure, on behalf of the KY Department of Education and the Army, through proper instruction, supervision and an integrated process, the JROTC program is administered according to law, regulation, policy, and principles. The DAI serves as representative in matters pertaining to the Department of the Army and JROTC; advocates for JROTC at the State and National Levels.

**Proof of Concept would only be manned with 2x personnel if restricted to Brigade TDA Authorization. To be successful we recommend minimum 4 and prefer 6 pax. CC Reg145-2 authorizes a 6 pax DAI with 26+ JROTC Programs and Kentucky has 62 JROTC Programs. 2-4 pax would not support West and East Region. We request manning above Authorization until the pilot is proved viable and TDA is updated for a state DAI manning of 6 pax or augmented with ADOS.



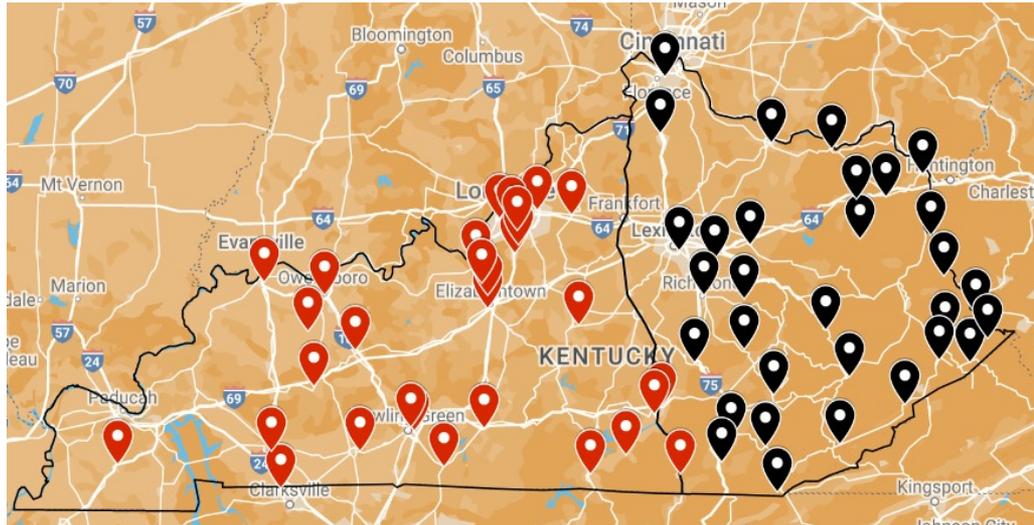


Proposed DAI Footprint



Western Kentucky JROTC (32)

- Allen County Scottsville HS
- Barren County High School
- Bowling Green High School
- Bullitt Central High School
- Butler Traditional High School
- Central Hardin High School
- Eastern High School
- Fort Campbell High School
- Fort Knox Middle High School
- Graves County High School
- Henderson County HS
- Hopkinsville High School
- John Hardin High School
- Logan County High School
- Louisville Male High School
- Marion County High School
- Muhlenberg County HS
- North Bullitt High School
- North Hardin High School
- Ohio County High School
- Owensboro High School
- Southern High School
- Warren Central High School
- McLean County High School
- Martha Layne Collins HS
- Clinton County High School
- Wayne County High School
- Pulaski County High School
- Southwestern High School
- McCreary Central High School
- Meade County HS
- Breckenridge HS



Eastern Kentucky JROTC (30)

- Belfry High School
- Breathitt County High School
- Clay County High School
- Corbin High School
- East Carter County HS
- East Ridge High School
- Elliott County High School
- Estill County High School
- George Rogers Clark HS
- Grant County High School
- Harlan County High School
- Henry Clay High School
- Jackson County High School
- Knox Central High School
- Lawrence County High School
- Letcher County Central HS
- Lewis County High School
- Madison Central High School
- Mason County High School
- Middlesboro High School
- Montgomery County HS
- Ashland Paul Blazer HS
- Perry County Central HS
- Phelps High School
- Pike County Central HS
- Rockcastle County HS
- Shelby Valley High School
- Martin County High School
- West Carter High School
- Whitley County High School



Proposed DAI Locations



COA 1

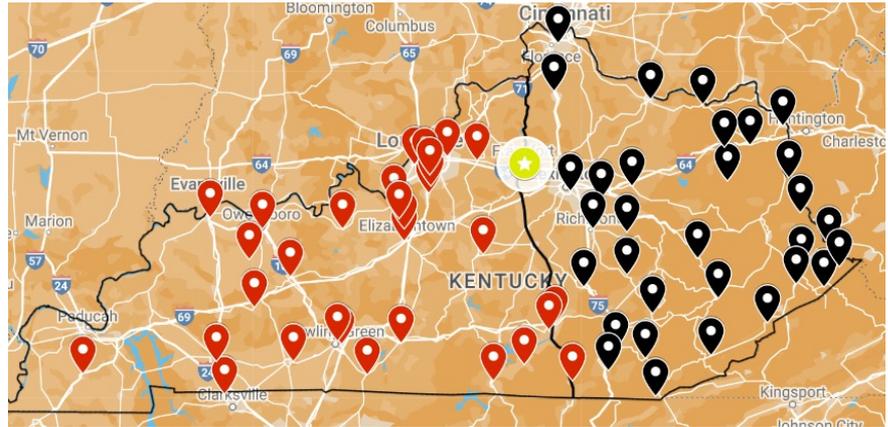
 State DAI HQs and East and Western Regional Offices located in Frankfort, KY

Pros

- Provides oversight of regional office operations
- Cost effective. Located in one building

Cons

- Regional office command and control is reduced due to travel time to subordinate units
- Increase TDY funding



COA 2

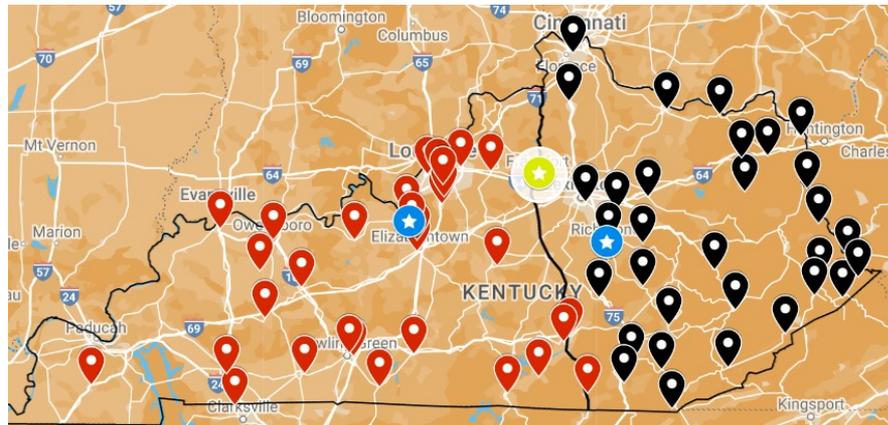
 State DAI HQs - Frankfort
 Eastern Regional Office - Richmond
 Western Regional Office - Fort Knox

Pros

- Provides better command and control at the regional level
- Less travel time to subordinate units

Cons

- DAI command and control of regional offices is reduced
- Increased funding for office facilities





DAI Pros and Cons



With DAI

- Command and Control
- Open lines of communication with local Commission of Education and government officials (CTE)
- Higher Attendance
- Less Disciplinary actions
- Graduation rate is higher
- Increased GPA
- Fluid presence and transparency
- Property Accountability
- Proactive counseling concerning disciplinary issues
- Conduct frequent follow ups
- Determine needs and interests of individual programs
- Ability to regroup and reassess
- Maintain annual on-site visits

Without DAI

- Limited / no Command and Control
- Greater loss of property due to lessened visibility and accountability
- Reactive counseling to disciplinary issues
- Decreased flow of information
- Limited support to AI and SAI
- Ability to visit programs reduced to once every 3-6 years



Assistance Required



TAG:

1. Support with Commissioner Glass/State representatives
2. Navigating State processes
3. Translating Army processes/concepts to State representatives

State:

1. Office Space (Already coordinated with Kentucky State)
2. Assign State DAI under Board of Education for authority to operate across school district lines.
3. Coordinate with Pike County to use DAI for the pilot. Currently authorized but not utilized.
4. Establish funding path for USACC JROTC to pay for the State DAI.



Closing Comments



-
- TAG
 - Deputy TAG
 - Director JROTC
 - BW6



Back Up Slides





Kentucky Department of Education



Dr. Jason E. Glass is commissioner of the Kentucky Department of Education (KDE).

[Commissioner of Education - Kentucky Department of Education](#)

Glass, a native of Brandenburg and a third-generation Kentucky educator, has been commissioner of education since September 2020. Before that, he had been superintendent and chief learner of Jeffco Public Schools in Colorado since 2017.

A 1990 graduate of Meade County High School, Glass received a bachelor's degree in political science and history in 1994, a master's in political science in 1996 and a master's in education in 2007 from the University of Kentucky (UK).

Glass began his teaching career at Hazard Independent Schools, working as a high school social studies teacher from 1996 to 1998. While still a graduate student, he already was serving as an instructor at UK and at Georgetown College.

Glass received his doctorate in education leadership in 2011 from Seton Hall University. He holds a certificate in advanced education leadership from Harvard University, received in 2019.

From 2001 to 2006 he held progressively senior positions with the Colorado Department of Education, then worked as vice president of quality ratings for Qualistar Early Learning. He served briefly as senior director of human capital strategy for Ohio-based Battelle for Kids before Iowa Gov. Terry Branstad appointed him state Director of Education. Glass served as Iowa's chief state school officer from 2010 to 2013. From 2013 to 2017 Glass was superintendent of Eagle County Public Schools in Colorado.

In 2016, President Barack Obama nominated Glass to the National Board for Education Sciences. He and his wife, Sarah, have two elementary-aged children who attend Kentucky public schools.



KY Adjutant General



Brig. Gen. Haldane (Hal) B. Lamberton, who served more than 35 years in uniform, is the state's new adjutant general appointed by Governor Andy Beshear. Lamberton was sworn into office shortly after midnight, Dec. 10, 2019.

[Brig. Gen. Haldane \(Hal\) B. Lamberton, The Adjutant General - Kentucky Department of Military Affairs](#)

As Kentucky's 53rd adjutant general, Lamberton will command the nearly 8,000 military members of the Kentucky Army and Air National Guard. He will also oversee the statewide Department of Military Affairs, Kentucky Emergency Management, the Appalachian and Bluegrass Challenge Academies and Bluegrass Station in Avon, Kentucky.

Lamberton brings a rucksack full of experience to the team. His last command position in the Kentucky National Guard before retirement was the commander of the 238th Regiment in Greenville, Ky. He is an infantryman by trade with five operational deployments to include service in Honduras, Panama, Saudi Arabia, Korea, Germany and Iraq.

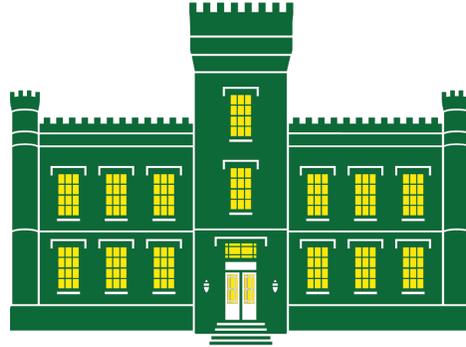
He has a degree from the University of Kentucky in Psychology and earned a masters degree in Strategic Studies from the Army War College in June 2009. He is Ranger qualified as well as Air Assault and Airborne.

Lamberton commissioned through the Reserves Officer Training Corps (ROTC) program at the University of Kentucky in May of 1986.

His significant active duty assignments include Infantry Platoon and Mortar Platoon Leader for the 504th Parachute Infantry Regiment, 82nd Airborne Division at Fort Bragg North Carolina; Rifle Company Executive Officer with the 504th; S-1 and Rifle Company Commander for the 1st Battalion, 506th Infantry, 2nd Infantry Division, Korea.

For the National Guard, he served in many positions from the 149th Brigade, 35th Infantry Division, Commander of 1st Battalion, 149th Infantry, 42nd Infantry Division, Director of Military Support, Director of Human Resources, and Director of Logistics.

Among the incoming TAG's numerous awards, Lamberton has received the Combat Infantryman's Badge, Master Parachutist wings with a combat star, the Legion of Merit and Bronze Star.



**KENTUCKY STATE
UNIVERSITY**

Financial Update

**Daarel E. Burnette, PhD
Interim Chief of Staff & Interim VP of Finance (CFO)
February 20, 2023**

Agenda

- **E&G Budget Execution – Dec 2022**
- **Cash Flow Report – Jan 2023**
- **FY 2021 & FY 2022 Audits**
- **HEERF Aid to Students**
- **Management Improvement Plan Update**



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E&G Budget Execution – Dec 31, 2022

Sources of Revenue	Approved Budget	Actuals	% of Budget
State Appropriations	\$ 18,235,600	\$ 9,902,281	54%
Tuition and Fees	\$ 16,000,000	\$ 7,816,458	49%
Non-Mandatory Fees	\$ 500,000	\$ 160,656	32%
Less Tuition Discount (Scholarships)	\$ (2,611,600)	\$ (1,107,438)	42%
Less Student Accounts Receivables	\$ (1,000,000)	\$ -	0%
Other Revenues	\$ 376,000	\$ 475,435	126%
Auxiliary Services	\$ 9,500,000	\$ 4,169,532	44%
Total Sources of Revenue	\$ 41,000,000	\$ 21,416,924	52%
Sources of Expenditures	Approved Budget	Actuals	% of Budget
Instruction	\$ 12,000,000	\$ 4,245,470	35%
Institutional Support	\$ 10,600,000	\$ 4,921,653	46%
Operation and Maintenance of Plant	\$ 5,500,000	\$ 2,820,342	51%
Student Services	\$ 5,900,000	\$ 3,175,231	54%
Auxiliary Services*	\$ 6,000,000	\$ 629,330	10%
Total E&G Expenditures	\$ 40,000,000	\$ 15,792,026	39%
Total Contingency & Reserve Funds	\$ 1,000,000	\$ -	

* Auxiliary Services Expenditures do not include approximately \$2.4M in expenses that have been incurred as of 12/31/2022 but have not been fully processed through the department procedures.



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Expense Detail Breakout – Dec 2022

Kentucky State University			
E&G Expense Summary			
	Salary and Benefits		
		Salary and Wages	\$ 7,645,942
		Benefits	\$ 3,347,126
			\$ 10,993,068
	Operating Expenses		
		Services	\$ 2,349,170
		Insurance (Property)	\$ 622,174
		Maintenance Contracts	\$ 451,272
		Equipment	\$ 379,780
		Travel	\$ 295,900
		Operating Supplies	\$ 193,728
		Communication	\$ 139,658
		Rental Expense	\$ 128,381
		Computers	\$ 104,387
		Other Expenses	\$ 81,144
		Interdepartmental	\$ 26,361
		Nonoperating Supplies	\$ 20,239
		Admin Fees	\$ 6,610
		Books	\$ 155
			\$ 4,798,958
	Total		\$ 15,792,026



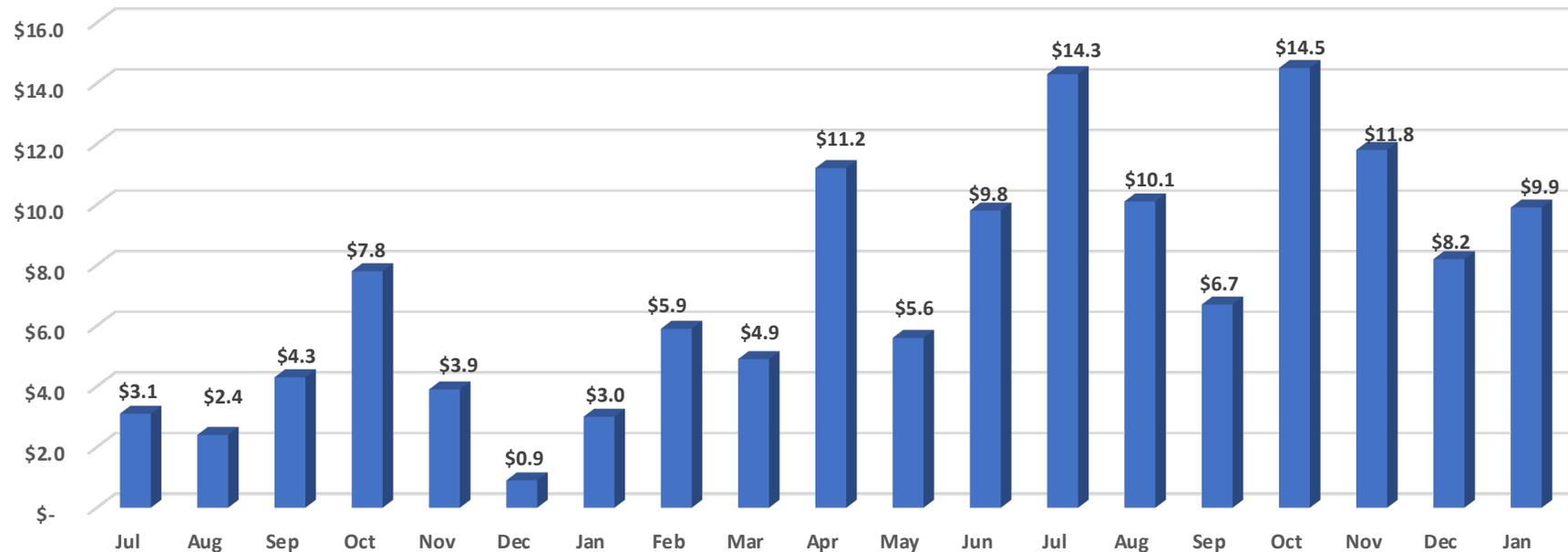
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Month Cash Flow Report (E&G Funds)

Cash Position

In Millions
July 2021 through January 2023

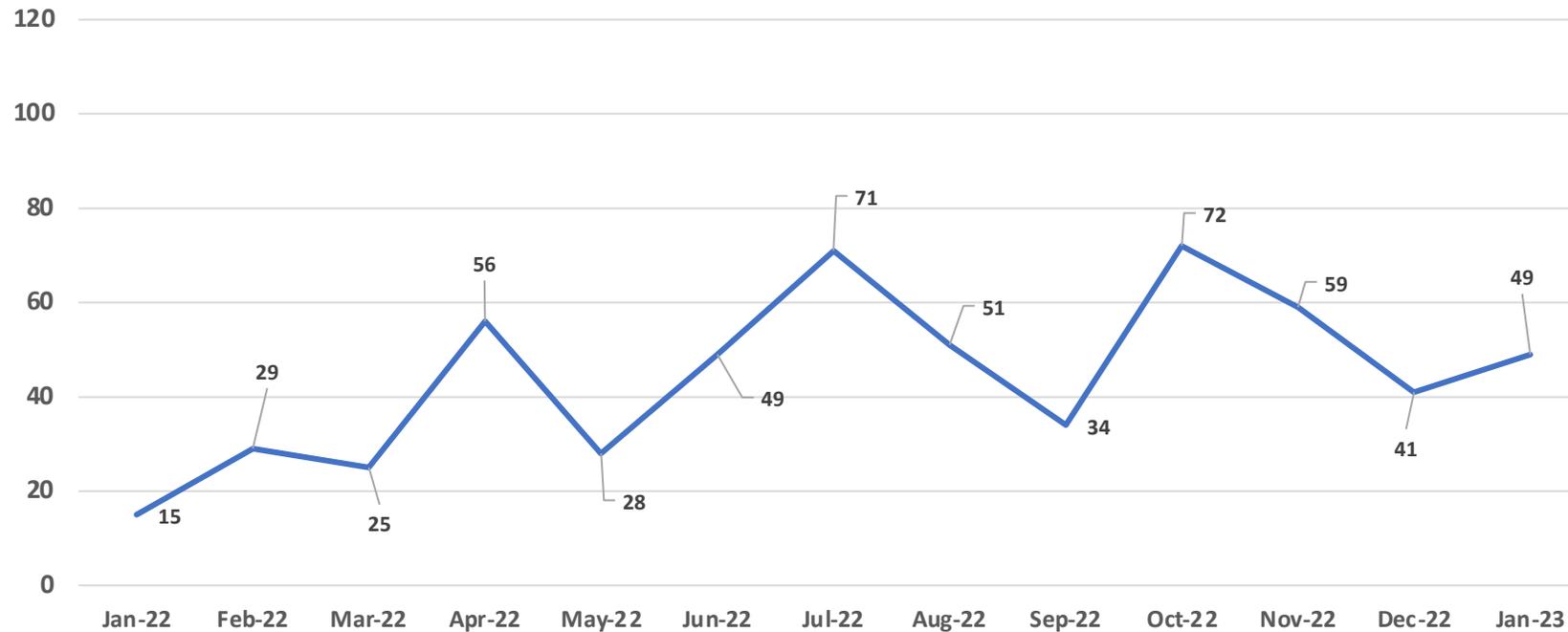


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Month Days of Cash Report (E&G Funds)

Days Cash on Hand
Fiscal Year 2023



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FY 2021 & FY 2022 Single Audit Updates

- Blue and Co. (CPA Firm) engagement term: Dec 2022 thru Jun 2023
- FY 2021 audit fieldwork performed concurrently with the FY 2022 audit
- Teams are meeting continuously and exchanging support documents and notes
- The projected deadline for FY 2021 audit report is by June 30, 2023, followed shortly by the FY 2022 audit report *

** A contract extension "may be" needed to complete the FY 2022 audit report.*



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ONWARD. UPWARD. #KSUFORWARD

HEERF Funds - P425J200025

- **Cares Act Higher Education Emergency Relief Fund – HBCU ***
 - ✓ To prevent, prepare for, and respond to the coronavirus COVID-19 disease pandemic
 - ✓ Net Authorized - \$19,814,253
 - ✓ Available Balance - \$7,541,301
 - ✓ Last Day for Drawdowns – October 30, 2023
- **Undergraduate students who are or were enrolled at an eligible institution on or after March 13, 2020, are eligible**
- **Total Aid Awarded in FY 2023: 735 undergraduates / \$1.5 million**
 - ✓ Fall 2022 – 228 students / \$410,379 (range \$30 - \$10,960)
 - ✓ Spring 2023 – 507 students / \$1,090,916 (range \$220 - \$11,148)



** Allowable uses are detailed in HEERF III grants under the American Rescue Plan Act of 2021*

KSU Management Improvement Plan Updates

Element 1:

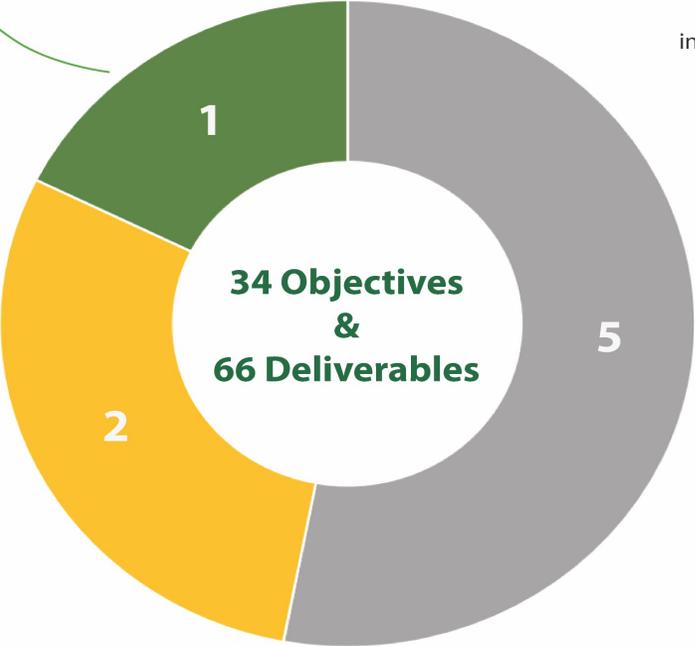
Comprehensive cataloging and review of university policies and procedures to ensure efficiency and compliance with state and federal law.

6 Objectives
6 Deliverables
1 of 6 Deliverables completed

Element 2:

Guidelines for salary ranges and benefits for all faculty, staff and administrators.

10 Objectives
10 Deliverables
1 of 10 Deliverables completed



Element 5:

Accounting and fiscal reporting systems, collections, budget and internal controls over expenditures and financial reporting.

18 Objectives
50 Deliverables
12 of 50 Deliverables completed

KSU Business Office is engaged in 3 of the 8 Element Plans



KENTUCKY STATE UNIVERSITY

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Questions?



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ONWARD. UPWARD. #KSUFORWARD

Spring 2023 Enrollment, Retention, Housing, and Meal Report

2/16/2023

Spring 2023 Enrollment Update (exclude Dual Credit)

Student Type	Fall 2022 Census Enrollment	Spring 2023 Registration	Spring 2023 Protected Students*	Spring 2023 Financially Enrolled**	Difference (Total Available to Enroll minus Protected and Financially Enrolled)
New First Time Freshmen^	367	24	12	12	0
New Transfer Students^	84	24	16	8	0
Continuing Undergraduate Students	892	1,119	386	730	3
Total Undergraduate	1,343	1,167	414	750	3
New Graduate Students^	33	27	19	8	0
Continuing Graduate Students	83	85	50	35	0
Total Graduate	116	112	69	43	0
TOTAL UNDERGRAD & GRAD	1,459	1,279	483	793	3

Notes: * Protected students are those who are NOT financially enrolled but notified the Bursar of a pending payment from third party, protected scholarships, or eligible for HEERF. New students and continuing students with GPA >= 1.9 are also considered as protected. These students are expected to be rolled over into financially enrolled as soon as their loans being disbursed.

** Financially enrolled are students who have signed a payment plan and/or paid off their balance.

^ New students in the fall may return in the spring as continuing.

2/16/2023

Spring 2023 Undergraduate Enrollment by Geographic Location (exclude Dual Credit)

Residency	Headcount
In-State	422
Out-of-State	745 ⁺
Top Five Out-of-State ⁺ Addresses:	
Ohio	201
Indiana	141
Illinois	96
Michigan	81
Tennessee	34

Spring 2023 Dual Credit Enrollment

Number of Courses	Headcount
1	335
2	63
3	35
4	10
5	1
Total Dual Credit	444

Spring 2023 Non-Protected and Non-Financially Enrolled Students (exclude Dual Credit)

Balance	Full Time	Part Time	TOTAL
<= \$1,000			
\$1,001 - \$3,000	1	1	2
\$3,001 - \$10,000		1	1
> \$10,000			
TOTAL	1	2	3

Balance	GPA < 2.00	TOTAL
<= \$1,000		
\$1,001 - \$3,000	2	2
\$3,001 - \$10,000	1	1
> \$10,000		
TOTAL	3	3

Note: The balance shown here are cumulative balance after memo-ed aid, authorized aid, and third party payment.

Spring 2023 KSU Housing Report

Residence	Gender	Protected	Financially Enrolled	Total Occupancy	Online Bed Capacity	Online Occupancy Rate	Max Bed Capacity
Chandler	Female	34	55	89	106	84.0%	115
Combs	Female	7	13	21	104	92.3%	106
	Male	27	48	75			
Kentucky	Female	40	75	115	114	100.9%	138
McCullin	Female	11	20	31	91	91.2%	95
	Male	21	31	52			
The Halls	Female	10	20	30	192	71.4%	322
	Male	35	71	107			
Young	Female	45	66	111	150	95.3%	150
	Male	13	19	32			
TOTAL	Female	147	249	397	757	87.6%	926
	Male	96	169	266			
Total Students in Dorms		243	418	663			

Note: 2 students do not have any Spring 2023 course schedule.

The number of online bed capacity and max bed capacity were provided by the office of Residence Halls.

2/16/2023

Spring 2023 Non-KSU Housing Report

Hotel	Gender	Protected	Financially Enrolled	Total Occupancy	Capacity	Occupancy Rate
Capital Plaza	Female	30	37	67	165	75.8%
	Male	27	31	58		
	Total	57	68	125		

Note: The number of bed capacity was provided by the office of Residence Halls.

Spring 2023 KSU Meal Plan Report

	14 Meal Plan w/ \$500	Com Meal – Plan A w/ \$355	Com Meal – Plan B w/ \$490	Com Meal – Plan C w/ \$620
TOTAL	805	9	7	6

Note: 7 students do not have any Spring 2023 course schedule.

'Aid Year'	'Sort'		
2023	AF		
'Fund'	'Fund Description'	'Paid'	Recipient #
ALTN	Alternative Loan	\$ 246,246.00	25
BAND	Band Scholarship	\$ 370,728.00	67
BLINKS	BLINKS Scholarship	\$ 3,927.00	1
CONC	Concert Choir	\$ 36,581.00	14
DLPLS2	Fed Direct Parent PLUS Loan-2	\$ 22,038.00	3
DLPLUS	Fed Direct Parent PLUS Loan-1	\$ 2,341,245.00	244
DLSUB	Fed Direct Subsidized Loan-1	\$ 3,070,416.00	813
DLSUB2	Fed Direct Subsidized Loan-2	\$ 3,958.00	1
DLUSB2	Fed Direct Unsubsidized Loan-2	\$ 110,878.00	34
DLUSUB	Fed Direct Unsubsidized Loan-1	\$ 3,053,052.00	834
FTBL	Football	\$ 492,506.00	63
FWS	Federal Work Study	\$ 85,826.78	69
HACH	Hach Scientific Scholarship	\$ 15,000.00	2
HBCU	HBCU Masters Program Grant	\$ 178,530.00	29
KCCA	Commonwealth Connector	\$ 67,855.00	34
KDRB	BRED 2 BRED	\$ 16,855.00	14
KHCP	KHEAA CAP	\$ 1,219,069.00	270
KHKE	KHEAA KEES	\$ 282,360.00	235
KHKY	KHEAA National Guard	\$ 23,557.50	6
KJHJ	John Henry Jackson	\$ 243,537.50	32
KRBA	Rufus B Atwood	\$ 214,466.95	32
KSGA	Student Government Official	\$ 37,787.00	6
KSUG	KSU Grant	\$ 11,654.63	5
KSUS	KSU Foundation Scholarship	\$ 192,528.50	72
KTAA	Thorobred Achievers Scholar	\$ 310,049.00	427
KUPB	Upward Bound Scholarship	\$ 8,652.00	3
MEBB	Men's Baseball	\$ 124,797.00	23
MEBK	Men's Basketball	\$ 159,405.00	12
MECC	Men's Cross Country	\$ 8,500.00	2
MEGO	Men's Golf	\$ 45,826.00	7
METR	Men's Track	\$ 49,313.00	10
MEVO	Mens Volleyball	\$ 71,500.00	8
MLKS	Martin Luther King Scholarship	\$ 3,483.75	1
N2GO	New 2 KSU (Gold)	\$ 85,496.00	11
N2GR	New 2 KSU (Green)	\$ 15,965.00	4
PELL	Federal Pell Grant	\$ 4,828,853.68	960
RISE	Rising Scholar Award	\$ 9,871.00	6
SCHOL	External Scholarship	\$ 332,244.25	121
SEOG	Federal SEOG	\$ 271,172.00	152
TBGO	Trail Blazer (Gold)	\$ 88,375.00	23
TBGR	Trail Blazer (Green)	\$ 5,892.00	3
USDA	USDA/KYSU In-Kind	\$ 20,539.00	3
USDS	1890 Scholarship	\$ 985,657.00	66
WOBK	Women's Basketball	\$ 151,081.00	13
WOCC	Women's Cross Country	\$ 13,133.00	4
WOSF	Women's Softball	\$ 110,947.00	11
WOTR	Women's Track	\$ 57,548.00	10
WOVB	Women's Volleyball	\$ 118,648.00	13
Total		\$ 20,217,550.54	

Fund, Total Paid #Rec

Aid Year		Paid
2023		
HACH	Hach Scientific Scholarship	\$ 15,000.00
HBCU	HBCU Masters Program Grant	\$ 178,530.00
KSUS	KSU Foundation Scholarship	\$ 192,528.50
SCHOL	External Scholarship	\$ 332,244.25
USDS	1890 Scholarship	\$ 985,657.00
ALTN	Alternative Loan	\$ 246,246.00
Total		\$ 1,950,205.75

External

Aid Year		Paid
2023		
BAND	Band Scholarship	\$ 370,728.00
BLINKS	BLINKS Scholarship	\$ 3,927.00
CONC	Concert Choir	\$ 36,581.00
FTBL	Football	\$ 492,506.00
KCCA	Commonwealth Connector	\$ 67,855.00
KDRB	BRED 2 BRED	\$ 16,855.00
KJHJ	John Henry Jackson	\$ 243,537.50
KRBA	Rufus B Atwood	\$ 214,466.95
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METR	Men's Track	\$ 49,313.00
MEVO	Mens Volleyball	\$ 71,500.00
MLKS	Martin Luther King Scholarship	\$ 3,483.75
N2GO	New 2 KSU (Gold)	\$ 85,496.00
N2GR	New 2 KSU (Green)	\$ 15,965.00
RISE	Rising Scholar Award	\$ 9,871.00
TBGO	Trail Blazer (Gold)	\$ 88,375.00
TBGR	Trail Blazer (Green)	\$ 5,892.00
USDA	USDA/KYSU In-Kind	\$ 20,539.00
WOBK	Women's Basketball	\$ 151,081.00
WOCC	Women's Cross Country	\$ 13,133.00
WOSF	Women's Softball	\$ 110,947.00
WOTR	Women's Track	\$ 57,548.00
WOVB	Women's Volleyball	\$ 118,648.00
Total		\$ 2,954,918.83

Institutional

Aid Year		
2023		
KHCP	KHEAA CAP	\$ 1,219,069.00
KHKE	KHEAA KEES	\$ 282,360.00
KHKY	KHEAA National Guard	\$ 23,557.50
Total		\$ 1,524,986.50

State

Aid year		Paid
2023		
DLPLS2	Fed Direct Parent PLUS Loan-2	\$ 22,038.00
DLPLUS	Fed Direct Parent PLUS Loan-1	\$ 2,341,245.00
DLSUB	Fed Direct Subsidized Loan-1	\$ 3,070,416.00
DLSUB2	Fed Direct Subsidized Loan-2	\$ 3,958.00
DLUSB2	Fed Direct Unsubsidized Loan-2	\$ 110,878.00
DLUSUB	Fed Direct Unsubsidized Loan-1	\$ 3,053,052.00
FWS	Federal Work Study	\$ 85,826.78
PELL	Federal Pell Grant	\$ 4,828,853.68
SEOG	Federal SEOG	\$ 271,172.00
Total		\$ 13,787,439.46

Federal

Endowment Balances		KSU FOUNDATION, INC.		
	9/30/22			
Endowment		Principal	Spendable Income	Fund Balance
AKA-HB CU Endowed Scholarship		\$50,000.00	(\$1,835.08)	\$48,164.92
Alma E. Smith Endowed Scholarship		\$11,498.00	\$1,894.69	\$13,392.69
Alpha Upsilon Achievement Fund		\$26,972.00	\$12,182.08	\$39,154.08
Ashby/Laura Grevious		\$247,500.00	(\$4,432.93)	\$243,067.07
Ben Shobe Endowed Scholarship		\$17,470.00	\$3,215.64	\$20,685.64
Cee Vee Harris Endowment		\$24,920.00	\$11,672.43	\$36,592.43
Central Area Links		\$27,000.00	\$4,688.66	\$31,688.66
Cincinnati Alumni Scholarship		\$25,980.00	\$9,680.76	\$35,660.76
Class of 1951		\$9,200.00	\$3,333.82	\$12,533.82
Class of 1969 Memorial Scholarship		\$30,725.00	\$757.80	\$31,482.80
College Endowment Fund		\$500,000.00	\$685,784.11	\$1,185,784.11
Community Baptist Church Endowment		\$84,200.00	\$19,177.27	\$103,377.27
Cuttie W. Bacon IV Scholarship		\$27,353.56	(\$2,925.44)	\$24,428.12
Delaney Endowment		\$36,000.00	\$5,196.45	\$41,196.45
Diageo Student Scholarship		\$1,000,000.00	(\$194,291.13)	\$805,708.87
Economics, Education & Financial Literacy		\$25,100.00	\$1,607.52	\$26,707.52
Floyd M. Theard Jr. Memorial Scholarship		\$6,585.00	\$3,272.95	\$9,857.95
Franklin Endowed Scholarship		\$10,100.00	\$2,320.71	\$12,420.71
General Scholarship Fund		\$4,986.66	\$1,492.20	\$6,478.86
Gertrude Ridgel Endowment		\$100,000.00	\$12,095.00	\$112,095.00
Harris Tyler Memorial Scholarship		\$5,782.25	\$1,007.35	\$6,789.60
Helen Fry Endowed Scholarship		\$10,000.00	\$2,061.39	\$12,061.39
Henry E. Cheaney Endowment		\$32,695.00	(\$3,567.81)	\$29,127.19
Henry Lambert Endowed Scholarship		\$16,551.65	(\$21.17)	\$16,530.48
HRDI Endowed Scholarship		\$100,000.00	\$4,412.50	\$104,412.50
Jackson Hall Perpetual Fund		\$85,400.00	\$39,999.72	\$125,399.72
Janey Turley Smith Endowment		\$27,175.00	(\$2,884.70)	\$24,290.30
John D. Walker III Endowment		\$8,589.00	\$3,854.65	\$12,443.65
Jon Anderson Endowed Scholarship		\$8,886.00	(\$929.08)	\$7,956.92
Joseph Craft Memorial Scholarship		\$23,571.00	\$10,408.10	\$33,979.10
Josephine Mansfield Endowed Scholarship		\$18,886.00	(\$1,069.06)	\$17,816.94
KSU Alumni Association Endowed Life		\$258,637.15	\$39,535.11	\$298,172.26
KSU Alumni Endowment Fund		\$63,063.24	\$29,085.40	\$92,148.64
Leavell-Greene		\$21,724.11	(\$238.42)	\$21,485.69
Leon, Leon, & Lorayne Miller Scholarship		\$24,125.00	\$5,393.21	\$29,518.21
Letton Scholarship		\$41,500.00	\$5,536.86	\$47,036.86
Luther Washington Memorial Scholarship		\$15,508.00	\$3,998.94	\$19,506.94
M & G Bard Endowment		\$52,673.00	\$24,671.01	\$77,344.01
M B Davis Endowment		\$13,018.38	\$290.06	\$13,308.44
Marion Wordlaw		\$68,955.00	\$12,762.12	\$81,717.12
Mary E. Gill Endowed Scholarship		\$16,868.55	\$5,038.50	\$21,907.05
Mary E. Hill Endowed Scholarship		\$18,206.00	\$4,481.19	\$22,687.19
Mary Faulkner		\$219,469.00	(\$415.38)	\$219,053.62
Mary L. Smith Endowed Scholarship		\$15,532.00	\$5,466.96	\$20,998.96
Mattie Shurn		\$25,000.00	\$10,956.25	\$35,956.25
Pearl Dale		\$375,984.00	\$241,102.18	\$617,086.18
Permanent Alumni Scholarship Fund		\$679,558.27	\$4,119.52	\$683,677.79
President Endowed Book		\$150,100.00	(\$1,182.36)	\$148,917.64
Presidents Challenge		\$156,726.63	\$22,059.32	\$178,785.95
Robert & Anna Davis Endowment		\$82,021.00	\$10,861.94	\$92,882.94
Rucker-Hamilton Endowed		\$12,000.00	\$992.68	\$12,992.68
Rufus B Atwood Endowed Scholarship		\$95,707.00	\$41,803.49	\$137,510.49
Sias Softball Endowment		\$11,000.00	\$2,482.44	\$13,482.44
Swindall W. D. Endowment		\$25,000.00	\$4,569.68	\$29,569.68
Terrence Grimes Endowment		\$22,700.00	\$1,010.06	\$23,710.06
Thelma Johnson Music Endowment		\$14,594.73	\$4,617.26	\$19,211.99
Title III Endowment		\$0.00	\$1,405,910.96	\$1,405,910.96
Vera O White		\$214,000.00	\$333,761.92	\$547,761.92
William B Reed		\$4,537.00	\$4,029.19	\$8,566.19
Wm P Barkley Endowed Scholarship Fund		\$37,495.00	\$18,219.10	\$55,714.10
Wood Taylor Memorial Scholarship		\$25,062.00	\$2,511.13	\$27,573.13
		\$5,363,891.18	\$2,871,589.72	\$8,235,480.90

KSU Foundation

KENTUCKY STATE UNIVERSITY VISION 2020 MATCHING ENDOWMENTS (ARGI)
Student Scholarship Fund Individual Donor Detail Report

	Total Corpus	ARGI Ending Balance as of January 31, 2023	Percentage of Student Scholarship Fund	Available Income	Total Account Balance as of January 31, 2023
Student Scholarship Fund Student Scholarship Fund (KSUF)	\$2,046,159.05	8,621,871.60	57.44%	\$2,906,267.25	\$4,952,426.30
Richard Allen Endowed Scholarship	\$ 10,000.00		0.28%	\$ 14,203.53	\$ 24,203.53
Ernest Lee Perry Memorial Endowed Scholarship	\$ 12,000.00		0.34%	\$ 17,044.23	\$ 29,044.23
Willa M. Dickerson Scholarship	\$ 25,066.00		0.70%	\$ 35,602.56	\$ 60,668.56
Columbia Gas of Kentucky Endowed Scholarship	\$ 100,000.00			\$ 142,035.26	\$ 242,035.26
Community Baptist Church Endowed Scholarship	\$ 20,000.00		2.81%	\$ 28,407.05	\$ 48,407.05
Butler Dowery Endowed Scholarship	\$ 10,100.00		0.56%	\$ 14,345.56	\$ 24,445.56
Francis and Barbara Goins Endowed Scholarship	\$ 14,000.00		0.28%	\$ 19,884.94	\$ 33,884.94
JoJuana and James Leavell-Greene and Vincent Greene General Endowed Scholarship	\$ 15,000.00		0.39%	\$ 21,305.29	\$ 36,305.29
Terrence K. Grimes Endowed Scholarship	\$ 26,000.00		0.42%	\$ 36,929.17	\$ 62,929.17
Marlene Helm Endowed Scholarship	\$ 16,500.00		0.73%	\$ 23,435.82	\$ 39,935.82
Valinda E. Livingston Endowed Scholarship for	\$ 11,740.28		0.46%	\$ 16,675.34	\$ 28,415.62
Masai Technologies Endowed Scholarship	\$ 20,000.00		0.33%	\$ 28,407.05	\$ 48,407.05
Hinfred McDuffie Endowed Scholarship	\$ 35,645.60		0.56%	\$ 50,629.32	\$ 86,274.92
Charlotte Schmidlapp Endowed Scholarship	\$ 200,000.00		1.00%	\$ 284,070.51	\$ 484,070.51
Mary Evans Sias Endowed Scholarship*	\$ 34,712.24		5.61%	\$ 49,303.62	\$ 84,015.86
St. Louis Alumni Chapter Endowed Scholarship	\$ 20,000.00		0.97%	\$ 28,407.05	\$ 48,407.05
Toyota Motor Manufacturing, Kentucky, Inc. Endowed Scholarship	\$ 200,000.00		0.56%	\$ 284,070.51	\$ 484,070.51
Jackson Homecoming Reunion Endowed Scholarship	\$ 11,729.72		5.61%	\$ 16,660.34	\$ 28,390.06
Rufus Atwood Endowed Scholarship	\$ 92,136.00		0.33%	\$ 130,865.60	\$ 223,001.60
M and G Bard Endowed Scholarship	\$ 53,956.00		2.59%	\$ 76,636.54	\$ 130,592.54
William Barkley Endowed Scholarship	\$ 32,172.00		1.51%	\$ 45,695.58	\$ 77,867.58
Cincinnati Alumni Endowed Scholarship	\$ 14,854.00		0.90%	\$ 21,097.92	\$ 35,951.92
Emma Buckley Memorial Scholarship (Community)	\$ 34,359.00		0.42%	\$ 48,801.89	\$ 83,160.89
Lytle T. Davis Scholarship Fund	\$ 5,000.00		0.96%	\$ 7,101.76	\$ 12,101.76
Wood Taylor Memorial Endowed Scholarship	\$ 21,384.00		0.14%	\$ 30,372.82	\$ 51,756.82
Herman Robinson Scholarship Endowment	\$ 27,237.00		0.60%	\$ 38,686.14	\$ 65,923.14
Henry Lambert Memorial Scholarship Fund (Charles	\$ 7,498.00		0.76%	\$ 10,649.80	\$ 18,147.80
James and Rosaline Letton Endowed Scholarship	\$ 38,000.00		0.21%	\$ 53,973.40	\$ 91,973.40
Buchanan Neville Endowed Scholarship	\$ 42,885.00		1.07%	\$ 60,911.82	\$ 103,796.82
Floyd M. Theard, Jr. Memorial Endowed Scholarship	\$ 6,745.00		1.20%	\$ 9,580.28	\$ 16,325.28
Permanent Alumni Endowed Scholarship	\$ 112,097.00		0.19%	\$ 159,217.26	\$ 271,314.26
Vera O. and Eugene White Endowed Scholarship	\$ 239,762.00		3.15%	\$ 340,546.57	\$ 580,308.57
Louie Rivers, III and Robert Clay Rivers Endowed	\$ 5,500.00		6.73%	\$ 7,811.94	\$ 13,311.94
			0.15%		
			100.00%		
	\$3,562,237.89			\$5,059,633.71	\$8,621,871.60

* - an additional \$18,886 is to be deposited into the corpus from the University (\$10,000 from 2022 and \$8,886 from 2023)

KSU Endowment

USDA 1890 Scholarships Program at Kentucky State University

PROGRAM PURPOSE

The purpose of the 1890 Scholarships Program is to provide scholarships to support undergraduate students at the 1890 land-grant institutions, resulting in baccalaureate degrees in the food and agricultural sciences and related fields. Kentucky State University is offering this scholarship to outstanding students as they enter the institution to pursue and complete baccalaureate degrees in the food and agricultural sciences and related fields that would lead to a highly skilled food and agricultural systems workforce.

The program began in Fall 2020 and is continuing. Kentucky State University (KSU) will award these scholarships to individuals who:

- Have been accepted for admission to KSU;
- Will enroll at KSU no later than one year after the date of acceptance;
- Meet the minimum GPA requirement; and
- Intend to pursue a career in the food and agricultural sciences, including a career in agribusiness, energy and renewable fuels, or financial management.

PROGRAM PRIORITY

The 1890 Scholarships Program supports the enrollment and retention of students at Kentucky State University to:

- Increase the number of graduates with baccalaureate degrees in the food and agricultural sciences and related fields; and
- Support Scholars' intent on pursuing a career in the food and agricultural sciences and related fields in order to meet the technologically advanced needs of the 21st century food and agricultural systems workforce.

To be eligible for the 1890 Scholarships Program at KSU, a student must commit to pursuing a career in agriculture and attain one of these baccalaureate degrees:

- Bachelor of Science in Agriculture, Food, and Environment (AFE) in tracks of:
 - Agribusiness;
 - Agricultural Communications;
 - Agricultural Systems;
 - Aquaculture Systems;
 - Environmental Systems; or
 - Food Systems and Nutritional Sciences
- Bachelor of Arts in Child Development and Family Relations
- Bachelor of Science in Biology
 - Including Pre-Professional Track (Pre-Veterinarian)
- Bachelor of Science in Chemistry
- Bachelor of Arts in Mass Communication and Journalism

- Bachelor of Arts in Business Administration:
 - Accounting;
 - General Business;
 - Management;
 - Specialization in Management Information Systems; or
 - Specialization in Marketing
- Bachelor of Science in Computer Science:
 - Information Security Option;
 - Mathematics Option;
 - Computer Information Systems; or
 - Applied Information Technology: Network Engineering

Those students not majoring in the B.Sc. in AFE must complete a minor in Agriculture, Food, and Environment or one of the AFE certificates to be eligible for the scholarship.

AWARDS

Scholarships are awarded annually and must be used at Kentucky State University. A Scholarship Committee, composed of faculty in the degree areas supported by the program, meets twice a year and reviews applicants. Each award is renewable each year for up to a four year term. Scholarships range from full tuition and room and board to partial scholarships. The scholarship renewal is contingent upon satisfactory academic performance and academic progress toward the bachelor's degree. Funding requests for this program are restricted to student scholarships.

Per legislation, Federal Funds awarded for scholarships must only be awarded to Scholars to cover the following:

- Tuition
- Student fees
- Room and board, and
- Textbooks (or e-books).

ELIGIBILITY REQUIREMENTS

A High School or Transfer Student Applicant or Current KSU student must:

- Be an eligible participant enrolled in one of the degree programs above;
- Be a citizen or national of the United States;
- Be accepted for admission at KSU;
- Be enrolled at KSU not later than one year after the date of acceptance at KSU;
- Study food and agricultural sciences or one of the degree areas that we have stated as related disciplines;
- Intend to pursue a career in the food and agricultural sciences, including a career in agribusiness, energy and renewable fuels, or financial management;
- Have a minimum cumulative 2.8 GPA at the time of application and maintain at least a 2.8 GPA on a semester and cumulative basis while receiving scholarship support;

- Be enrolled as a full-time student in a program of study in the food and agricultural sciences or a related field leading to an undergraduate degree during each semester that he/she receives 1890 Scholarships Program support
- Complete an Free Application for Federal Student Aid (FAFSA);
- Each recipient student will have a faculty mentor in their agricultural interest area and the student will be required to visit with this professor at the beginning of each semester to discuss the student's progress in the program. The student will be required to submit a progress form and continued agricultural career commitment form to the Selection Committee as proof of the meeting. The committee will review all recipients at the end of each semester to monitor progress in completing their education, maintaining a 2.8 GPA, and participation in student groups for leadership development.

CURRENT AWARDS

There were 61 students in Fall 2022 who were awarded either full or partial 1890 Scholarship receiving \$592,384.00. There are currently 70 students in Spring 2023 who were awarded either full or partial 1890 Scholarship receiving \$665,570.00

KSU Foundation Scholarship Process

The Process

The KSU Private Source Foundation awards scholarships to undergraduate students that demonstrate the need for additional financial assistance to cover outstanding balances. Funds are requested through an online application process (see link below). Each student must complete an online application to apply for the scholarship along with a 250-word essay stating how the funds will benefit him or her academically. Upon a thorough vetting of all scholarship applications from the Director of Scholarships, all applicants who meet the required qualifications are notified they have met the requirements and their applications will be sent out for justification. Approved applicants are then forwarded to the Foundation Scholarship Committee with through a justification document for final verification and approval.

Once approved, a transmittal is generated by the Foundation Scholarship Committee and submitted to the offices of financial aid, bursars and scholarship office. If a student's financial status changes upon waiting on the scholarship process, financial aid will only award and/or post what the student is eligible to receive. Once awards are posted to student's accounts by the bursar's office the Director of Scholarships will notify the students concerning their respective award status.

If students does not meet the required qualifications, he/she are notified from the scholarship office with an explanation of why he/she were denied. If a student's denial status changes for the better and meets the qualifications with legitimate reasons, he/she may resubmit a corrected and/or revised application as long as it is within the applications timeframe of acceptance.

Student Eligibility and Requirements

Awards are disbursed per semester to the bursar's office for students who meet the following requirements:

- Have a current year and completed FASFA on file
- Have accepted the maximum amounts on the subsidized and unsubsidized student loans offered
- Are in good academic standing (meaning NOT on probation)
- 2.0 grade point average or above
- Enrolled full-time (12 credits or more)
- Demonstrates the need for the financial assistance (Balance must be more than \$100)

KSU Private Source Scholarship Link

<https://www.kysu.edu/scholarships/pvt-univ-scholarship-application.php>



KENTUCKY STATE UNIVERSITY BOARD OF REGENTS

ACTION ITEM 5A

ACTION ITEM:

Approval to purchase a Thermo Fisher Scientific Apreo 2 S LoVac scanning electron microscope using USDA grant funds. This piece of equipment would be located at the Atwood Research Facility, and it would be used by faculty, staff, and students in the College of Agriculture, Community, and the Sciences at Kentucky State University.

FACTS:

This scanning electron microscope would be used to conduct agricultural research for several research projects. More specifically, it would be used to examine: 1) soil particles and soil microbial activity as they pertain to water-holding capacity and overall soil health, 2) pathogens in water and food, 3) mechanisms by which bees are infected with pathogens, 4) coronavirus particle presence, 5) the development and destruction of cancer cells following novel treatments for cancer, and 6) a range of applications in plant science. This microscope would also be used in aquaculture research for identifying aqueous animal parts and biological materials, as well as characterizing the biodiversity of biomedica and biofilters. Moreover, the equipment would offer the opportunity for students to be trained in these new advanced technologies, thus supporting efforts to make students ready for the workforce.

BUDGETARY IMPLICATIONS:

\$580,681 of federal USDA research grant funds would be used to purchase the Apreo 2 S LoVac scanning electron microscope. The purchase of this device would also require approval from the USDA and the Kentucky Finance Cabinet following approval by the KSU Board of Regents.

RECOMMENDATION:

Interim President Ronald A. Johnson recommends that the Board of Regents approve the purchase of the Apreo 2 S LoVac scanning electron microscope.

MOTION:

Approve the purchase of an Apreo 2 S LoVac scanning electron microscope using USDA funds.

Apreo 2 SEM for Life Sciences

Maximize your productivity with flexible, robust, and high-performance 2D/3D life science imaging with the Thermo Scientific Apreo 2 SEM for life sciences.

This highly flexible system boasts many features that can make life science imaging simple. For example, charge-free imaging in combination with simultaneous triple in-column detection ensures the right image at the right time. The Thermo Scientific™ Apreo 2 SEM is the ideal choice for 2D and large-volume analysis.

The Apreo product line is known for versatile, high-quality imaging of difficult and/or delicate life science samples. The Apreo 2 SEM builds on these qualities to provide optimal imaging for an even wider range of critical life science targets. With charge-free, high-resolution, and enhanced-contrast imaging, it is now even easier to find the right conditions for every specimen.

Lens and Column configurations

The unique Trinity In-Column Detection System of the Apreo 2 SEM allows you to obtain more data from your sample thanks to its final lens design, which includes multiple detectors at different positions in the lens. The system allows a choice in lens presets: the electrostatic final lens (in the Apreo 2 C SEM) is ideal for imaging heavily charging samples, whereas the immersion lens (in the Apreo 2 S SEM) enables increased contrast in life science samples.

Key Benefits

All-around high performance for life science samples ranging from tissues to nanoparticles. Using the compound electrostatic magnetic-immersion lens, ultra-high resolution can be achieved with great depth of field (long working distances).

Flexible 2D and 3D imaging. The Apreo 2 SEM can image a wide range of samples in 2D, or, with the addition of our serial block-face imaging system and multi-energy deconvolution software or Array Tomography, it can even unravel complex 3D architectures in their natural context.

Less time on instrument maintenance. With Thermo Scientific SmartAlign Technology, optical alignment can be performed automatically so that you can spend more time on data collection and less on routine maintenance.

Enhanced surface contrast. Beam deceleration allows for the detection of low-angle backscattered electrons, enhancing the topographical surface contrast of your samples.

Simultaneous detection of multiple signals. The Apreo 2 SEM features the unique, in-column Trinity Detection System, which allows simultaneous detection of multiple signals (e.g., composition, topography, and surface information) and is immediately available from the moment the beam is activated.

Serial block-face imaging system. Our state-of-the-art serial block-face imaging system enables large 3D volume acquisition without user attendance and volume reconstructions (using Thermo Scientific Amira™ Software) in an automated manner, achieving high-quality isotropic 3D data.

Array Tomography software. The Apreo 2 SEM also allows volume imaging with our dedicated Array Tomography software, which enables high-resolution 3D images based on serial ultra-sections of biological tissue blocks.

Within the column, different detectors allow simultaneous information on material contrast (T1 detector; detecting backscatter electrons), topography (T2 detector; detecting secondary electrons), and surface information (T3 detector; detecting low-energy secondary electrons). In all Apreo 2 SEMs, the T1 and T2 detector are available as standard, and the T3 is optional.

Other detector options for the Apreo 2 SEM include the chamber-mounted Thermo Scientific Nav-Cam+™ Camera; the ETD detector, which detects secondary electrons and backscatters; a retractable DBS, which, by its four annular segments, allows discrimination of backscatters based on their angle; and a retractable, segmented STEM detector. The STEM detector allows higher contrast in life science samples in annular dark field. For serial block-face imaging, a specific LoVac lens-mounted backscatter detector can also be configured, providing the best image quality in low-vacuum conditions.

Chamber and stage options

The Apreo 2 SEM offers a choice of high-resolution HiVac operation or a dedicated LoVac mode. The latter allows chamber pressures up to 500 Pa, which provides a certain hydration level to samples and allows different charge-mitigation strategies to be applied. Mitigation of these charging effects results in excellent resolution in the images. The low-vacuum mode also comes with an automated routine to insert and remove the pressure limiting aperture (PLA). The PLA allows you to choose the proper conditions for imaging instead of manually adjusting the system for LoVac imaging conditions.

The flexible chamber of the Apreo 2 SEM accommodates up to three EDS/WDS ports for fast and sensitive X-ray measurements, which can be analyzed using the revolutionary Thermo Scientific™ ChemiSEM™ Technology. This technology provides elemental information quickly and easily, and, because it is fully integrated into the user interface of the SEM, the elemental information is displayed as color in the live image, meaning that the SEM is no longer a grayscale technique.

The chamber is also compatible with cryogenic stages, cathodoluminescence detectors, integrated Raman, and other analytical techniques that might be required, offering a full package for any application and any research question that needs answering.



3D imaging

Volumescope System

The addition of our state-of-the-art serial block-face imaging system to your Apreo 2 SEM allows you to move your experiments into 3D, unraveling the complex architecture and structure-function relationships of your sample in its natural context. The Thermo Scientific Volumescope™ System can be quickly and easily mounted onto your Apreo 2 SEM, giving you the ability to perform unattended, large-volume acquisition as well as automatic visualization of the reconstructions.

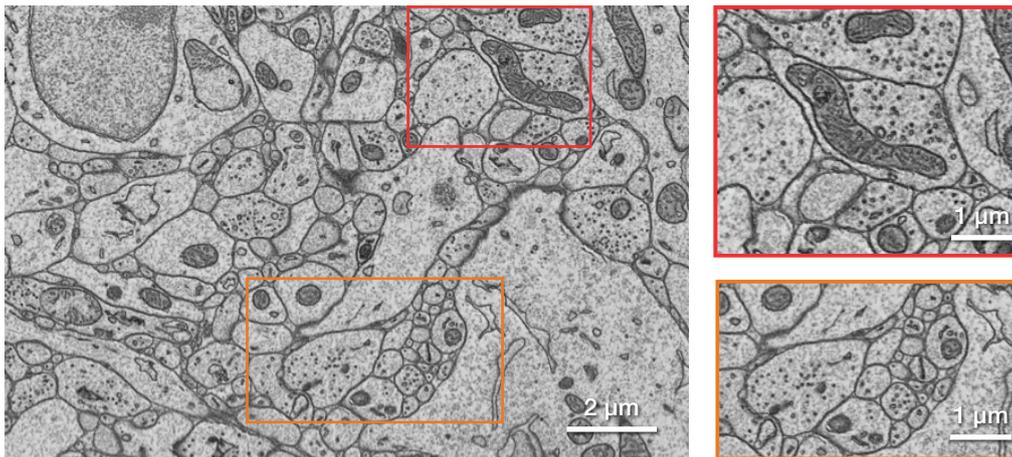
The Volumescope System offers an improved axial resolution by combining the mechanical microtome with optical sectioning. After each section is cut from the block face, the exposed sample is imaged with a series of increasing accelerating voltages. This generates a 3D subset of optical subsurface layers that provide isotropic information with 10 nm Z-resolution. The ability to quickly remove the microtome allows you to switch the system back to normal 2D SEM operation or even to automated tomography through the addition of optional Thermo Scientific Maps™ Software.

Array Tomography

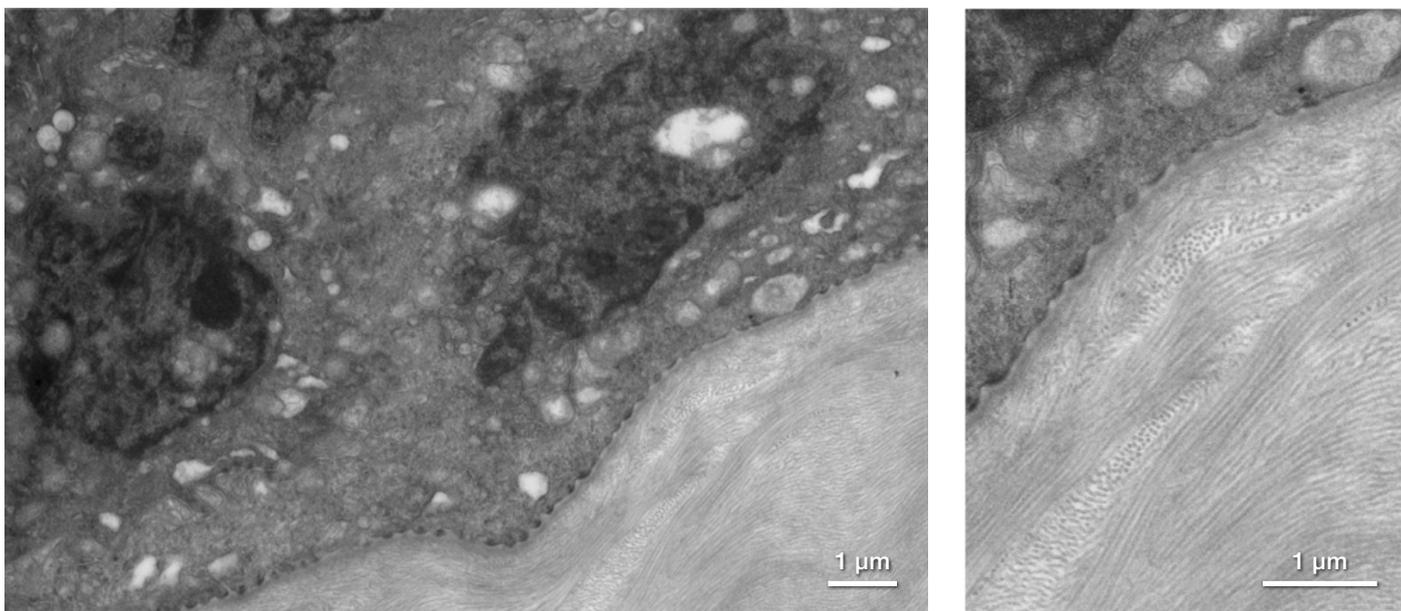
Array Tomography is a software module within Maps Software that enables high-resolution 3D image volumes based on serial ultra-sections of biological tissue blocks. Array Tomography samples are typically carriers that carry hundreds of serial ultra-sections. Until now, the process of creating imaging regions in the same relative location in all sections required hours, or even days, of manual input from a skilled operator. Using the Thermo Scientific Array Tomography workflow, the automatic Section Finder takes over this task.

Life science samples imaged with the Apreo 2 SEM

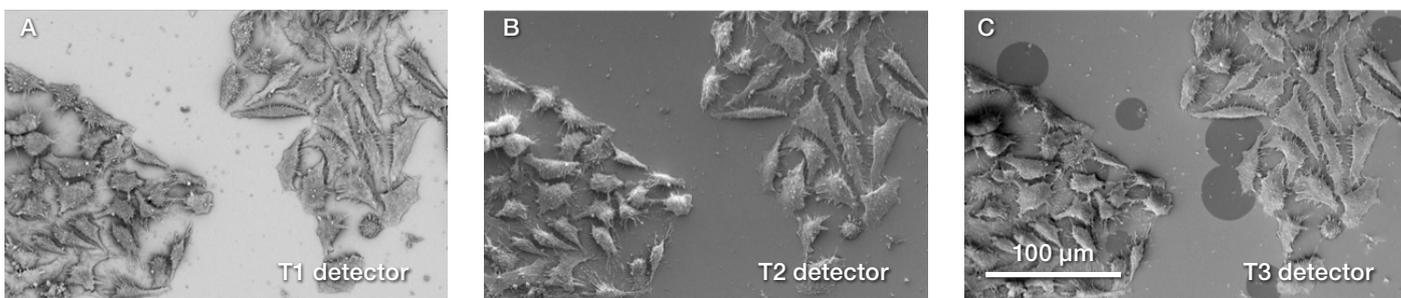
Cell and tissue biology applications



Resin-embedded, heavy-metal-stained neuronal tissue images in high vacuum using the in-lens T1 backscatter electron detector at 1.5 kV. Left image shows a low-magnification overview. Images on the right represent high-magnification images from the left image, showing contrast differences resulting from backscattered electrons.



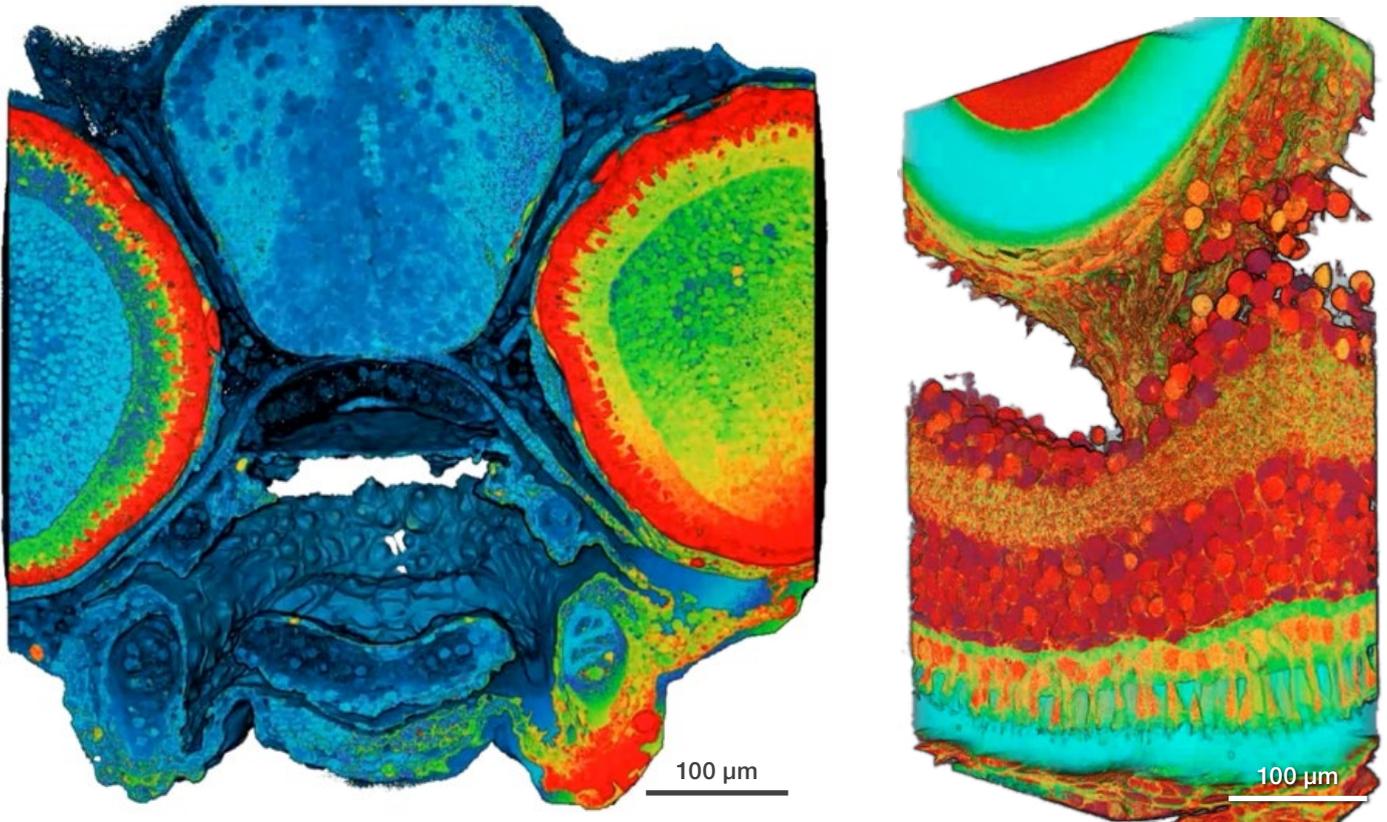
Ultra-thin, resin-embedded section of corneal tissue, imaged at 30 kV using an immersion lens in combination with the retractable STEM detector. Left image shows a low-magnification overview. Image on the right represents a high-magnification image from the left.



HeLa cell (critically point-dried on a coverslip) images with the unique Trinity In-Column Detection System. The left image (A) is taken with the T1 backscatter electron detector, which is positioned inside the tip of the final lens and shows the materials contrast. The middle image (B) is taken with the T2 secondary electron detector, which is positioned just above T1 and shows the topography information of the sample. The right image (C) is taken with the T3 secondary electron detector, which is positioned high up in the column and shows the surface information of the sample.

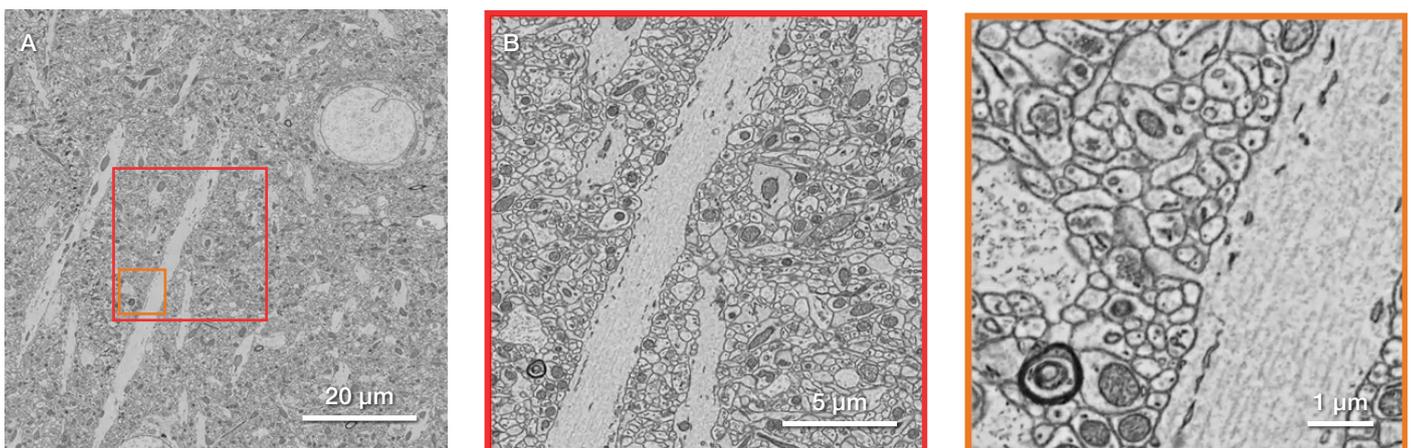
3D imaging applications

Volume rendering using the Volumescope System

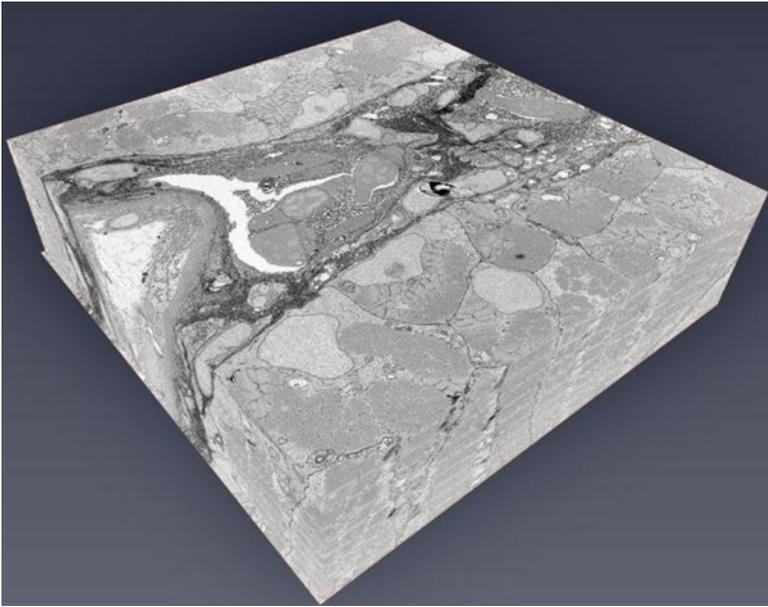


Examples of volume renderings of a zebrafish embryo head (left) and of zebrafish embryo eye tissue (right). Both samples were imaged in low-vacuum mode using the DBS detector. The zebrafish embryo head was imaged at 2 kV (100 pA) with 3 μs dwelltime. The total volume is 350 μm x 350 μm x 83 μm using a total of 829 images (with a slice thickness of 100 nm and voxel size of 42 nm x 42 nm x 100 nm). The images required 7 days of continuous imaging. Scale bar: 100 μm.

The zebrafish embryo eye tissue was imaged at 3 kV (100 pA) with 3 μs dwelltime. The total volume is 136 μm x 94 μm x 31 μm using a total of 772 images (with a slice thickness of 40 nm and voxel size of 48 nm x 48 nm x 40 nm). Courtesy for both samples: Robbert Creton, Brown University. Scale bar: 20 μm.

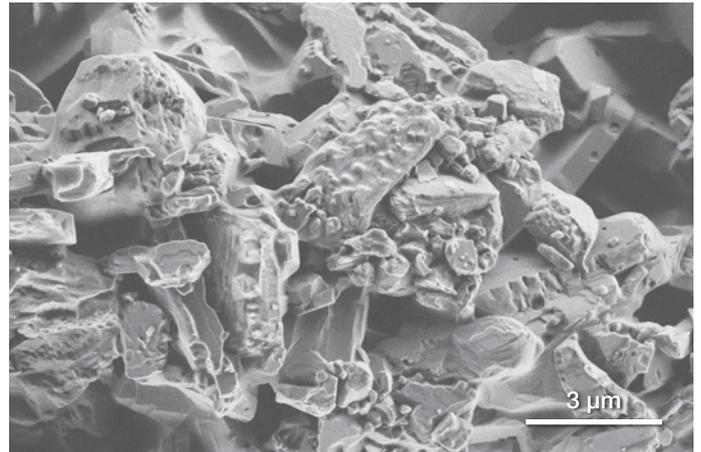
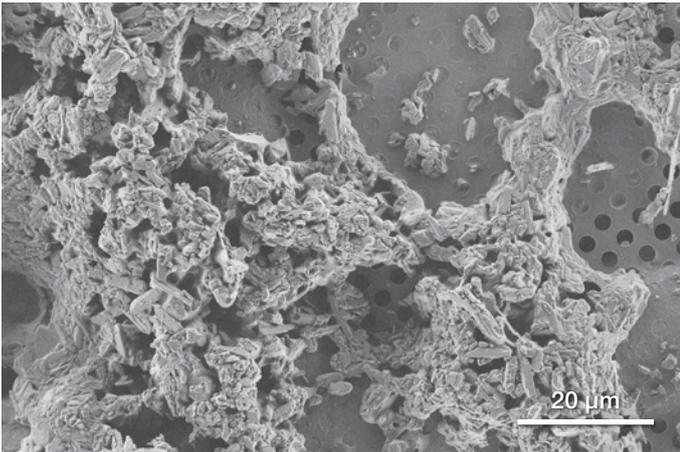


Example of Array Tomography with a mouse brain tissue sample. Large overview images were recorded at a resolution sufficient for detection of synapses in multiple sections; synapses were mapped with pan & zoom in the Maps Software, and high-resolution imaging was performed in sub-areas of multiple sections.

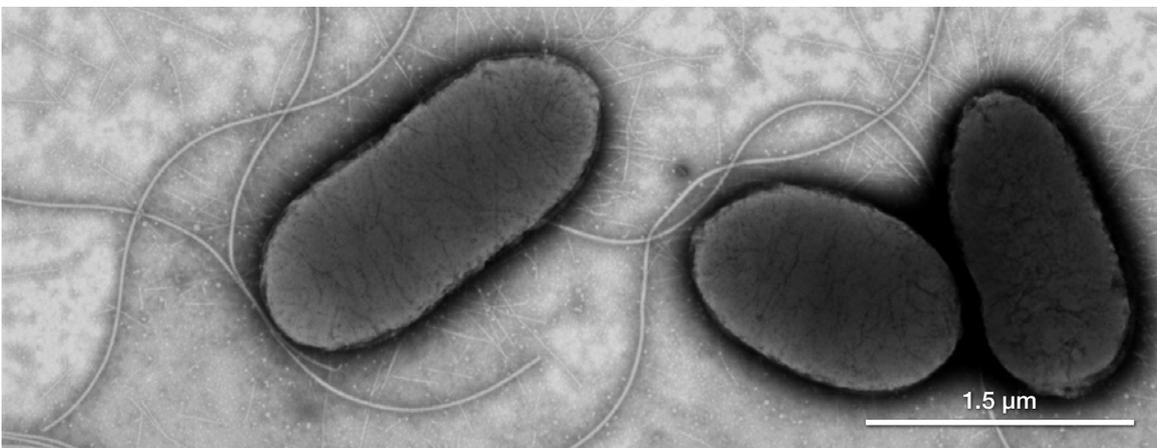


Example of Array Tomography in a zebrafish embryo. The sample comprised 12 pieces of tape with 20 sections per tape. A $40\ \mu\text{m} \times 40\ \mu\text{m} \times 20\ \mu\text{m}$ volume was recorded at a resolution of $5 \times 5 \times 80\ \text{nm}$ in the aorta region of the 48h PF embryo.

Pharmaceutical and Biotechnology applications

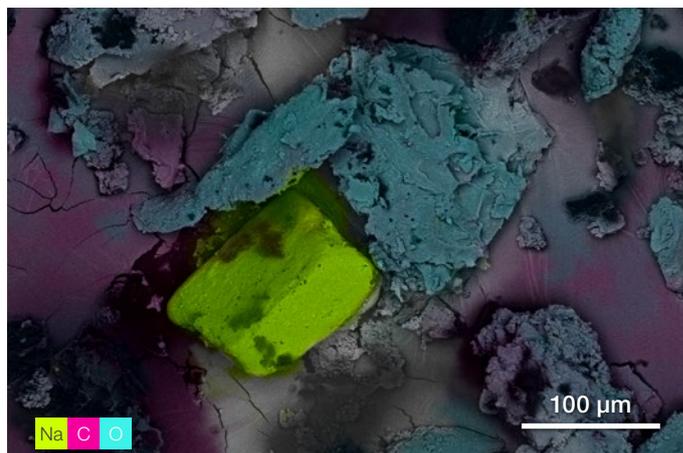
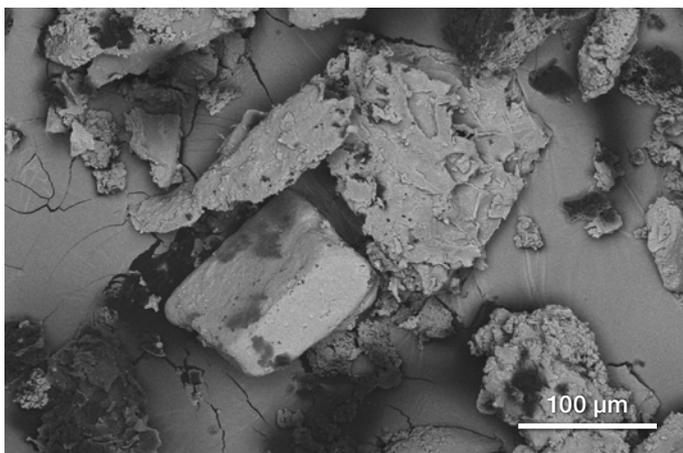


Images of an anti-asthmatic drug deposited from a compressed-gas delivery inhaler onto a TEM grid. In the left image at low magnification, you can see the particles deposited on the surface. The second is a close-up of the particles at a higher magnification showing fine surface details. Taken using the immersion lens at 1 kV accelerating voltage with the in-lens backscatter detector (T1), without metal coating. This shows how high contrast and surface detail can be obtained without complex sample preparation on low-atomic-weight materials using the Trinity and Immersion modes.



Example of microorganisms imaged using the retractable STEM detector, allowing for better contrast and resolution in life science samples.

Analytical applications



ChemiSEM image of “Salt and Pepper” imaged at 15 kV with the T1 in-lens backscatter detector and integrated EDS ChemiSEM EDS detector. The image on the left shows backscatter contrast of the particles on a carbon sticky tab. The image on the right shows the live, automatically applied elemental image for sodium (Na), representing the salt and oxygen-rich pepper in blue (O), and (C) showing the carbon sticky tape. Note the similarity of the phases in backscatter, yet the elemental analysis clearly shows the phase separation. This extra color can help you distinguish between phases that could otherwise be confused.

Electron optics

High-resolution FEG column with	High-stability Schottky field emission gun to provide stable high-resolution analytical currents
	Compound final lens: a combined electrostatic, field-free magnetic and immersion magnetic objective lens
	60° objective lens geometry allows for tilting of larger samples
	Automated heated apertures to ensure cleanliness and touch-free aperture changes
	SmartAlign Technology for user-free alignment
	Through-the-lens differential pumping for low vacuum* reduces beam skirting for accurate analysis and high resolution
	Beam deceleration with stage bias from -4,000 V to +600 V
	Continuous beam current control and optimized aperture angle
	Double stage scanning deflection
	Easy gun installation and maintenance: auto bake-out, auto start, no mechanical alignments
	PivotBeam Mode for selected area electron channeling, also known as rocking beam mode (Apreo 2 S SEM only)
	Guaranteed minimum source lifetime: 24 months

Electron beam resolution

Apreo 2 SEM	Apreo 2 C SEM	Apreo 2 S SEM
Final lens	Electrostatic	Compound
High-vacuum resolution		
30 kV (STEM)	0.7 nm	0.7 nm
15 kV (BD)	0.9 nm	0.5 nm
15 kV (6.4 nA, WD 10 mm)		
1 kV	1.2 nm	0.9 nm
1 kV (BD)	1.0 nm	0.8 nm
1 kV (BV, WD 10 mm)		
500 V (BD)	1.2 nm	0.8 nm
200 V (BD)		
Low-vacuum resolution*		
3 kV (30 Pa)	1.8 nm	1.8 nm
15 kV (30 Pa)	1.2 nm	1.2 nm

Electron beam parameter space

Beam current range	1 pA–50 nA (400 nA configuration also available)
Accelerating voltage range	200 V–30 kV
Landing energy range	20 eV–30 keV (in serial block-face imaging SEM 500 V–6 kV)
Max. horizontal field width	3 mm at 10 mm WD (corresponds to 29x min magnification)

Chamber

Inner width	340 mm
Analytical working distance	10 mm
Ports	12
EDS take-off angle	35°
Options	Three simultaneous EDS detectors possible; two at 180° Coplanar EDS/EBSD orthogonal to the tilt axis of the stage
Detectors	The Apreo 2 SEM detects up to four signals simultaneously from any combination of the available detectors or detector segments*: Trinity Detection System (in-lens and in-column) T1 segmented lower in-lens detector T2 upper in-lens detector T3 in-column detector* VS-DBS: LoVac lens mounted BSED (for Volumescope System) ETD—Everhart-Thornley SE detector DBS—Retractable segmented under-the-lens BSED* Low-vacuum SE detector* DBS-GAD—Lens-mounted gaseous analytical BSED* STEM 3+—Retractable segmented detector (BF, DF, HADF, HAADF)* IR-CCD Nav-Cam+ Camera (chamber-mounted)
Vacuum system	Complete oil-free vacuum system 1 × 240 l/s TMP 1 × PVP-scroll 2 × IGP Chamber vacuum (high vacuum) 6.3×10^{-6} mbar (after 12 hours pumping without Volumescope System)* (after 72 hours pumping with Volumescope System) Evacuation time: ≤3.5 minute Optional low-vacuum mode up to 50 Pa for charge compensation of non-conductive samples 10–500 Pa chamber pressure Automatic Pressure Limiting Aperture (PLA) Loader
Sample holders	Standard multi-purpose holder uniquely mounts directly onto the stage, hosts up to 18 standard stubs (Ø12 mm), three pre-tilted stubs, cross-section samples, and two pre-tilted row-bar holders* (38° and 90°). Tools are not required to mount a sample. Each optional row-bar accommodates 6 S/TEM grids Wafer and custom holders*

3D imaging

Volumescope System

Array Tomography

Resolution	High image quality in Z direction @ 10 nm isotropic resolution (using MED-SEM)	The achievable resolution is dependent of the SEM column that is used.
Control software	Maps Software	Maps Software
Visualization software	Amira Software for Life Sciences	Amira Software for Life Sciences
Post processing software	Multi-Energy Deconvolution SEM (MED-SEM)	

Stage specifications

Stage and sample WITHOUT Volumescope microtome	Type	Eucentric goniometer stage, 5-axes motorized
	XY	110x110 mm
	Repeatability	<3.0 μm (at 0° tilt)
	Motorized Z	65 mm
	Rotation	n \times 360°
	Tilt	-15° / +90°
	Max. sample height	Clearance 85 mm to eucentric point
	Max. sample weight	<ul style="list-style-type: none"> • 500 g in any stage position • Up to 5 kg at 0° tilt (some restrictions apply)
Stage and sample WITH Volumescope microtome	Section thickness	Effective section thickness using MED \geq 10 nm
	Cutting thickness	Guaranteed 40 nm Achievable 25 nm
	Cutting speed	User-defined: 0.1–1 mm/sec
	Cutting window	2 mm
	Sample Z travel range	1.2 mm
	Sample size	600 x 600 μm
System control	64-bit GUI with Windows 10, keyboard, optical mouse	
	24-inch LCD display, WUXGA 1920 \times 1200 (second monitor optional)	
	Customizable graphical user interface, with up to 4 simultaneously active views	
	FLASH automated image tuning for focus, lens align, and stigmator	
	Image registration	
	Navigation montage	
	Image analysis software	
	Undo / Redo functionality	
	User guidance for basic operations / applications	
	Optional joystick	
Optional manual user interface (knob board)		
Image processor	Dwelltime range from 25 ns to 25 ms/pixel (in Volumescope 2 SEM: 50 ns–1 ms)	
	Up to 6144 \times 4096 pixels (40k \times 40k with Maps Software)	
	File type: TIFF (8-, 16-, 24-bit), JPEG, or BMP (in serial block-face imaging: 8-, 16-bit)	
	Single-frame or 4-view image display	
	SmartScan Mode (256-frame average or integration, line integration and averaging, interlaced scanning)	
	DCFI Mode (drift-compensated frame integration)	
	Digital image improvement and noise reduction filter	
Accessories (optional)	Sample / chamber cleaning: CryoCleaner, Integrated Plasma Cleaner	
	Analysis: EDS, EBSD, WDS, CL, Raman	
	Thermo Scientific QuickLoader™ Load Lock for fast sample transfer	
	Navigation: correlative navigation, Maps Software tiling and stitching	
	Gas injection: up to 2 units (other accessories may limit number of GIS available) for beam-induced deposition of platinum, tungsten, carbon	
	Manipulators	
	Cryo-stage	
	Electrical probing / multi-probing stations	
	Electrostatic beam blanker	

Software options	<p>Maps Software for automatic large-area acquisition using tiling and stitching; correlative work</p> <p>3D reconstruction and image analysis software; Amira Software for Life Sciences</p> <p>Thermo Scientific AutoScript™ 4 Software: Python-based application programming interface</p> <p>TopoMaps for image colorization, image analysis, and 3D surface reconstruction</p> <p>Advanced image analysis software</p> <p>Remote control software</p>
Documentation	<p>Online user guidance</p> <p>Operating instructions handbook</p> <p>Online help</p> <p>Prepared for RAPID (remote diagnostic support)</p> <p>Free access to online resources for owners</p>
Warranty and training	<p>1-year warranty</p> <p>Choice of service maintenance contracts</p> <p>Choice of operation / application training contracts</p>
Consumables	<p>Replacement Schottky electron source module</p> <p>Aperture strips for electron columns</p> <p>Diamond knife from external supplier (Diatome) for Volumescope System</p>
Installation requirements	<p>Power:</p> <ul style="list-style-type: none"> • Voltage 100–240 V AC (-6%, +10%) • Frequency 50 or 60 Hz (+1%) • Consumption: <3.0 kVA for basic microscope <p>Earth resistance <0.1 Ω</p> <p>Environment:</p> <ul style="list-style-type: none"> • Temperature (20+ 3)°C • Relative humidity below 80% • Stray AC magnetic fields <40 nT asynchronous, <100 nT synchronous for line times, 20 ms (50 Hz mains) or 17 ms (60 Hz mains) <p>Minimum door size: 0.9 m wide × 1.9 m high</p> <p>Weight: column console 980 kg</p> <p>Dry nitrogen recommended for venting</p> <p>Compressed air 4–6 bar, clean, dry and oil-free</p> <p>System chiller</p> <p>Acoustics: site survey required, as acoustic spectrum relevant</p> <p>Floor vibrations: site survey required, as floor spectrum relevant</p> <p>Optional active vibration isolation table</p>

 Learn more at thermofisher.com/apreo

**Apreo 2 S LoVac Scanning Electron Microscope Quotation for
Kentucky State University
Attn. Dr. Tom Webster**

Quote Date: January 31, 2023
Quote Number: QUO-164553-S1Q2 R0
Expires: April 28, 2023

Prepared By Terry Glaab, Sr Account Manager
Phone: +1 (773) 230-0679
Mobile: +1 773-230-0679
terry.glaab@thermofisher.com

Proposed Solution

Line #	Part Number	Description	QTY	Amount
Apreo 2 S LoVac				
1	1229004	<p>Apreo 2 S LoVac</p> <p>The core instrument (Apreo 2 S LoVac) includes:</p> <ul style="list-style-type: none"> - Workstation with Windows 10 - 1 x 24" widescreen LCD monitor - xT software - NICol electron column - 110 x 110 mm eucentric stage - Multi-purpose SEM holder - CCD IR camera - In-chamber Nav-Cam - Immersion Lens - In-lens detectors: Lower (T1) and Upper (T2) - T3 Detector - SE detector (ET-SED) - Low-Vacuum SED (LVD) - Oil-free pumping system - Integrated current measurement - Automatic aperture system - Automatic Pressure Limiting Aperture (PLA) Loader - Beam deceleration - Electron beam charge neutralizer (LoVac) - PivotBeam - Large table top with support 	1	\$492,395
Detectors				
2	1091077	Retractable STEM 3+ Detector	1	\$29,075
3	1120429	Solid-state Detector Integration Kit	1	\$11,723
4	1050312	Advanced Signal Selection	1	\$8,120
Application Software				
5	1133682	Maps 3 for SEM with Correlative Workflow	1	\$47,783
6	1133684	Maps 3 Offline with Correlative Workflow	1	\$4,827
Specimen Holder(s) and Accessories				
7	1120431	SEM Starter Kit	1	\$2,550
8	FP 6735/00	Set of 20 Specimen Stubs for SEMs	1	\$128
Miscellaneous				
9	1091087	Integrated Plasma Cleaner	1	\$17,958
PC and Accessories				
10	1218296	Windows 10 Support Computer	1	\$5,880
11	1016773	24" Widescreen LCD Monitor	1	\$1,838
12	1120471	Manual User Interface	1	\$9,956
13	1214207	Remote Control / Imaging	1	\$996
14	1094684	Triple Monitor Stand	1	\$1,421
Cooler / Compressor				

15	FP 3440/52	Acoustic Enclosure for Pre-vacuum Pump	1	\$2,700
16	9432 909 96411	Compressor 120 V, 60 Hz with 4-liter Tank	1	\$1,416
Power Options				
17	FP 6343/02	Mains Matching and Isolation Transformer	1	\$2,834
Training				
18	9425 060 99100	On-site Applications Training - Americas (1 day)	6	\$34,020
19	1403153	Remote Applications Training - Americas (1 day)	2	\$4,510
Compliance				
20	26823	NRTL Safety Testing	1	\$10,274
Site Preparation Services				
21	1152412	Site Survey Snapshot	1	\$12,668
Installation & Warranty				
22	4022 404 41230	Installation Labor Apreo 2 S LoVac NA	1	\$0
23	4022 404 02230	Installation Material Apreo 2 S LoVac NA	1	\$0
24	4022 404 43230	Warranty Labor Apreo 2 S LoVac NA	1	\$0
25	4022 404 04230	Warranty Material Apreo 2 S LoVac NA	1	\$0
Shipping				
26	4022 400 43811	CIP Brno / Named place of destination in North America (T-1)	1	\$9,300
Installation Kit				
27	9425 061 69515	NA Inst. Kit Q(3D)F / NNS / Verios / Versa 3D / Scios / Teneo	1	\$13,456
			List Price Total	\$725,828

Pricing Summary (in USD)	
List Price	\$725,828
Total Discount	-\$145,147
Sub-total including discount	\$580,681
Taxes	Not Included
Grand Total	\$580,681

Key Term Summary	
Billing Terms	30% / 60% / 10%
Payment Terms	N30
Payment Method	
INCOTERMS 2020	CIP
Indicative Delivery Period	~5-6 Months ARO
This proposal is valid until	April 28, 2023

The contracting entity for these goods is FEI Company and the PO should be issued to:

**FEI Company
5350 NE Dawson Creek Drive
Hillsboro, Oregon 97124
Tel: 503-726-7500, Email: MSDNASalesSSOA@thermofisher.onmicrosoft.com**

Solution Description

1229004 Apreo 2 S LoVac

Apreo 2 S LoVac is a Schottky Field Emission Scanning Electron Microscope (FESEM) that combines high- and low-voltage ultra-high resolution capabilities with an electrostatic lens design together with a low vacuum mode for charge compensation on non-conductive material. The instrument features beam deceleration and unique in-lens detection offering unprecedented contrast and versatility to researchers working with a variety of materials and devices.

The key enabling technologies are all integrated onto a single platform and comprise:

- Novel Field Emission Electron Optics optimized for both high current and high resolution meeting all imaging and analysis needs
- Trinity detection system for fast imaging, and easy collection of all available signals
- High-precision specimen goniometer with 110 mm travel along the x and y axes
- A Windows 10, 4-view "Beam per View" User Interface with User Guidance
- System architecture is optimized for automation, which is optionally available (e.g. MAPS™)



Features and specifications:

Vacuum

Apreo 2 S LoVac uses an entirely oil-free vacuum system, featuring:

- 1x 240 l/s turbomolecular drag pump
- 1x Scroll pumps
- 2x Ion Getter Pumps
- Integrated battery backup for IGPs on the electron column, a FEG safety mechanism (for recoverability after an unplanned power outage)
- Auto bake-out and Auto-start enable fast and easy maintenance of the FEG source
- Low vacuum mode up to 500 Pa for charge compensation of non-conductive samples
- Seamless switching between high vacuum and low vacuum with an automated mechanism for attachment of a pressure limiting aperture to the pole piece

Sample Navigation

Apreo 2 S LoVac is standard equipped with a 5-axes motorized x-y-z-tilt-rotate stage, providing movements:

- X and Y range: 110 mm (motorized); Z range: 65 mm (motorized)
- Tilt: -15 to +90 degrees (motorized)
- Eucentric tilt
- A unique standard specimen holder with labeled positions and unique stage mounting, allowing simultaneous loading of 18 standard samples (\varnothing 12 mm), three 45° pre-tilted samples, two row bars (one in horizontal and one in 52° pre-tilted position), and a spring-loaded clamp holder for mounting cross-sections.

A selection of additional sample holder kits is optionally available (including stub holders, additional TEM sample holders and vise specimen holders).

Joystick stage control is available as an option.

Stage control software includes standard facilities for:

- Store and recall of sample position
- Double-click-to-center and drag-to-zoom feature select functions
- Multi-directional stage drive
- Compucentric rotation
- Compucentric tilt
- Image feature alignment to horizontal or vertical
- Navigation on image and navigation montage is supported with "Click-to-center" and "Drag-to-Zoom" functions
- External image import and registration for correlation.

Intuitive, photo-based sample navigation is provided by the Nav-Cam™. The Nav-Cam is a color optical camera, mounted directly to the chamber for acquiring an image of samples mounted on the specimen stage. Fully integrated in the user interface, the Nav-Cam allows for quick point-and-click navigation to the region of interest. Nav-Cam features:

- Automatic image acquisition with sample lighting
- 160 x 105 mm field of view
- 3072 x 2048 pixels or approximately 6 megapixels
- Digital zoom
- Image annotation
- Image save

Electron Optics

Apreo 2 S LoVac features a pre-aligned electron optical column, which is optimized for high resolution and for beam stability. Apreo 2 features SmartAlign technology which keeps the column aligned without manual intervention. The main elements of the electron optical system are:

Source: Field emission gun assembly with Schottky emitter source. The assembly is optimized for high brightness/high current, providing low-noise imaging. The pre-alignment of the FEG ensures no mechanical alignment is required. Easy gun installation and maintenance is provided with Auto bake-out and Auto Start capabilities.

Final Lens: Dual Objective combining field-free magnetic and electrostatic lenses, extended to a triple-mode compound electrostatic-magnetic final lens by the Immersion Lens. The pole piece has a 60° design.

Beam deceleration: Can be activated for getting higher surface sensitivity and contrast using low and very low landing energies. Beam deceleration is implemented as an additional degree of freedom to optimize contrast and surface sensitivity while improving the optical performance of the electron column

Voltage: 200 eV to 30 keV (20 eV landing energy possible with Beam Deceleration)

Beam Current: 1 pA to 50 nA (up to 400 nA available as option)

Resolution (optimal working distance):

High vacuum, field-free mode

0.7 nm at 30 kV (STEM)

0.9 nm at 15 kV (with beam deceleration)

1.2 nm at 1 kV

1.0 nm at 1 kV (with beam deceleration)

1.2 nm at 500 V (with beam deceleration)

High vacuum, immersion mode

0.9 nm at 1 kV

High vacuum, immersion mode with beam deceleration

0.5 nm at 15 kV

0.8 nm at 1 kV

1.0 nm at 1 kV, 10 mm WD

0.8 nm at 500 V

1.2 nm at 200 V

Low vacuum, field-free mode
1.2 nm at 15 kV
1.8 nm at 3 kV

Scanning system

High-resolution digital scanning engine controlled from the User Interface.

- Pixel density 768 x 512, 1536 x 1024, 3072 x 2048, 6144 x 4096, selectable
- Minimum dwell time 25 ns/pixel; maximum 25 ms/pixel
- Electronic scan rotation by $n \times 360$ degrees

Detection

Apreo 2 S LoVac features a high-vacuum secondary electron detector (Everhart-Thornley SED) and low-vacuum SED (LVD), optimized for use across the available kV, current and pressure range. The Trinity detection system is comprised of a segmented, lower in-lens detector (T1), an upper in-lens detector (T2) and an in-column detector (T3). Apreo 2 S LoVac also includes a dedicated Low Vacuum secondary electron detector to provide charge-free topographic contrast imaging of non-conductive samples. An integrated IR-CCD camera is standard for in-chamber viewing and the Nav-Cam color optical camera is used to take top-down images of samples for navigation. Optionally available are a retractable Directional Backscatter (DBS) detector and a STEM detector for imaging thin sections, powders or FIB-prepared specimen.

Imaging

Images are displayed in an area of 1536 x 1024 pixels, configurable for either single-frame or four-view display. Apreo 2 features FLASH technology, which automatically performs focus, lens alignment and stigmator alignment in a matter of seconds – all that is required is the push of a button. Images can be viewed live, averaged or integrated. Apreo 2 fully supports the SmartSCAN™ advanced scanning strategies which allow line averaging and interlaced scanning in addition to Drift Corrected Frame Integration (DCFI). Still images can be saved in TIFF, BMP, JPEG file formats, and in 8-bit, 16-bit or 24-bit depth, to the hard disk or LAN from the graphical user interface. Image printing is also available from the user interface. In addition, the system supports recording of AVI movies. This can either be done on the fly or by capturing a series of TIFF images at user-specified intervals. These TIFF images can then be combined into AVI's by using the included proprietary movie creator software.

The software includes a 4-view mode, in which the displays can be used for live display of electron images (SE, BSE), mixing of signals and display of the image of the standard infrared (IR-CCD) camera.

Look-up tables allow image contrast, brightness or gamma to be enhanced. Flexible databar selection is also provided. User-definition of preferred imaging parameter sets is available. Imaging parameters are stored in the TIFF image file as private data. Finally, image measurements and annotations can be performed live on the image and the results can be stored together with the images.

Selected area electron channeling imaging

Apreo S HiVac comes with PivotBeam™ functionality for selected area electron channeling. Also known as “rocking beam” mode, PivotBeam keeps the beam on a single area (<5 μm diameter) while scanning the incident angle. For crystalline materials, the resulting k-space image shows dark bands reminiscent of an EBSD pattern, indicating the angles with enhanced electron channeling. PivotBeam helps orienting the sample for Electron Channeling Contrast Imaging (ECCI) and imaging dislocations in the crystal.

System control

Apreo 2 S LoVac is controlled from an MS-Windows 10 graphical user interface running at a 1920 x 1200 screen resolution. The controller computer is based on an Intel Xeon W3520 Processor/ 2.66 GHz 8 MB cache, 12 GB system memory, one 500 GB hard drive, one 16x DVD+/-RW drive, integrated FireWire and USB ports and a 1 Gb LAN network card (computer specifications subject to change). The system includes a 24” LCD monitor, keyboard, optical mouse and a height-adjustable office desk. A USB manual user interface (for controlling magnification, contrast/brightness, beam shift and stigmators) and/or a Joystick (for control of stage movement) is optionally available.

The microscope controller is dedicated to its primary function, includes a DVD/RW and has a possibility to connect directly to a LAN. Optionally, a support computer can be connected for additional functionality such as MS-Office software suite, firewall, anti-virus and other non-instrument software.

RAPID

This instrument is RAPID-enabled. RAPID (Remote Access Program for Interactive Diagnostics) is a highly secure connectivity tool that enables Thermo Fisher Scientific's service engineers to connect directly to the instrument to address system issues remotely. RAPID can significantly speed up repair time and thus reduce instrument downtimes, while improving Thermo Fisher Scientific's overall quality of service. Thermo Fisher Scientific's service engineers use RAPID to perform remote system diagnostics and repairs, support user operation and view images for enhancing system performance. However, customers maintain complete control of how and when RAPID is used -- each RAPID session must be initiated by the customer. RAPID requires a high-speed internet connection (> 5 MB/sec recommended, 1 MB/sec required). For full details please browse to the [RAPID pages](#) on the Thermo Fisher Scientific website

Installation requirements

Please refer to Apreo pre-installation guide.

1133682 Maps 3 for SEM/SDB with Correlative Workflow

Thermo Scientific Maps is the system automation and correlative microscopy software suite for SEM and DualBeam systems. Maps provides automated acquisition of image mosaics via easy set up and offers complete control on location, resolution and imaging parameters. Maps makes it easy to set up multiple mosaic acquisitions on a single sample, or on multiple samples loaded in the chamber. Maps also makes it easy to re-align and collect data over multiple imaging sessions.

Specifications:

- The maximum pixel resolution is 40k x 40k per tile (depends on microscope type).
- Maps corrects for non-linear stage behavior to increase navigation accuracy.
- Maps supports batch acquisition, allowing the user to schedule acquisition of multiple areas in one job, saving supervised time.
- Microscope real-time stitching of tiled images can be carried out concurrent with image acquisition.
- Export of stitched tile sets or user defined areas to TIFF or HD View compatible formats.
- Maps image data can be saved in RAW format or TIFF format.

Maps Correlative Workflow

Maps Correlative Workflow serves as a powerful addition to the Maps correlative microscopy suite. Users can input images from any source via a wide range of standard image formats. Maps provides guided workflows to import, align and visualize all sample imagery. Users have control over visualized layers, transparency of each layer and native histogram controls for SEM images. Users can also easily share results using the optional offline version. Annotations including text, linear and angular measurements can be made by multiple users and shared in a single project for a collaborative interpretation experience.

Key Features:

- Import of 2D images of any common image file format
- Import of 3D data in the form of 3D Tiff format
- Import of Leica CLEM data format including all overviews and local zStacks
- Guided Correlation Workflow
- Image layer controls

1133684 Maps 3 Offline with Correlative Workflow

Maps 3 Offline with Correlative Workflow is intended for running on dedicated image processing computers. The offline version of Maps 3 with Correlative Workflow requires at least 4 GB of RAM memory and can be connected to multiple Maps.

26823 NRTL Field Labeling

Third party electrical safety assessment and field labeling by a Nationally Recognized Testing Laboratory (NRTL) at the Customer's site.

FP 3440/52 Acoustic Enclosure for Pre-vacuum Pump

The acoustic enclosure is a cover that fits the pre-vacuum pump(s) of the microscope system. It provides noise dampening of the pump(s) for operator and microscope.

Please note that this part number (FP 3440/52) is not suitable for the Edwards XDS35i vacuum pump.

9432 909 96411 Compressor 120 V, 60 Hz with 4-liter Tank

The compressor is required when compressed air of 6 atm. is not available; compressed air is required for operating pneumatic valves and the microscope's leveling system. The compressor is connected to the mains supply unit of the microscope.

1050312 Advanced Signal Selection

The option Advanced Signal Selection includes a multiplexer that permits the simultaneous detection of signals from all detectors, and all segments of all detectors. It is automatically selected when the detector configuration requires it.

1091077 Retractable STEM 3+ Detector

The Retractable STEM 3+ Detector enables scanning transmission imaging in bright-field, dark-field and high-angle dark-field modes. This STEM 3+ detector has eleven individual channels: a bright-field segment, four concentric dark-field segments, and six high-angle, dark-field (HADF) segments. With the Retractable STEM 3+ Detector there is no need to vent the chamber for inserting or removing the detector. The detector includes a row holder that can hold up to six TEM grids and that is compatible with the standard system holder. It also includes the load base.

This Retractable STEM 3+ Detector is suitable for Apreo and VolumeScope. It requires the presence of the Solid-State Detector Integration Kit (1077075) and Advanced Signal Selection (1050312). With support of signals from up to twelve channels, it is possible to sum the available signals from the bright-field segment, selectable dark-fields and selectable high-angle, annular dark-fields segments.

1120429 Solid-state Detector Integration Kit

The Solid-state Detector Integration Kit is required to enable interfacing with one or more solid-state detectors such as the STEM, DBS and GAD detectors. It allows having all three solid-state detectors connected simultaneously and provides support for up to twelve signal channels. This allows access to all solid-state detector segments.

4022 404 41230 Installation Labor Apreo 2 S LoVac NA

Installation Labor Apreo 2 S LoVac NA

4022 404 02230 Installation Material Apreo 2 S LoVac NA

Installation Material Apreo 2 S LoVac NA

4022 404 43230 Warranty Labor Apreo 2 S LoVac NA

Warranty Labor Apreo 2 S LoVac NA

4022 404 04230 Warranty Material Apreo 2 S LoVac NA

Warranty Material Apreo 2 S LoVac NA

9425 061 69515 NA Installation Kit for Quanta (3D) FEG / Nova NanoSEM / Verios / Versa 3D / Scios / Teneo

Part Number	Qty	SSD Supplied items
25066	1	External 10-inch water filter kit
1001224	1	Specimen stubs (20)

1020166	2	NIPPLE,SS,3/8BSPP-NPT
1020167	2	BARB,BRASS,3/8NPT
1021406	1	Water Damper
4022 297 06181	5	8 mm Poly Tubing
4035 273 22521	1	Power strip, 6 out 220 IEC type
4035 273 43491	1	Chloramine-T algacide (250 gram jar)
9425 061 69458	1	Auto Transformer 208 V to 228 V 7 KVA
9425 061 69549	1	10 pack DVD+R x 10 - 4.7 GB Disks
9425 061 69585	2	50 ft. each - 3/8 inch Air Hose
9425 061 69586	8	Hose Clamps, Size 08
9425 061 69587	2	Brass Reducer 1/2"NPT – 3/8"NPT,
9425 061 69588	2	Brass Hose Barbs 3/8" NPT to 3/8" Hose
9425 061 69589	1	20 A, 250 V Twist Lock Plug, Hubbell
9425 061 69590	2	1/2" KO Cable Clamp, Thomas & Betts
9425 061 69617	4	IEC Power cords, 6 ft.

Choose a Chiller Type – air or water cooled

9425 031 90501	1	Haskris RO33 Air Cooled Water Chiller
OR		
9425 031 90511	1	Haskris RO33 Water Cooled Water Chiller

1091087 Integrated Plasma Cleaner

An integrated Plasma cleaner helps to ensure that the specimen surface stays clean. Its integration allows for a direct access through the user interface to two cleaning modes: chamber cleaning, and a mild specimen surface cleaning. The removal of hydrocarbon contaminants is of particular importance when operating at low kV for true surface imaging,

This option is available for Apreo, VolumeScope, Quattro and Prisma E.

1016773 24" Widescreen LCD Monitor

Specifications of the 24" Widescreen LCD monitor:

- 16.77 million colors
- High performance IPS TFT 16:10 display
- On-screen user control via on-screen manager (OSM)
- Intelligent power manager

Display: 61.1 cm (24.1 inch)
0.270 mm dot pitch, 300 cd/m²
1000:1 contrast ratio
<16 ms response time
Resolution: 1920 x 1200 at 60 Hz refresh rate (optimum)

1120471 Manual User Interface

Manual User Interface (MUI) is a supplementary control console providing direct manual control of microscope parameters such as focus, magnification, contrast, brightness, beam shift and stigmator.

1214207 Remote Control / Imaging

Remote Control / Imaging is a Remote Control package that enables full control of the microscope via another computer across a network. The imaging transfer speed and the remote system responsiveness is determined by the speed and quality of the network connection. 100 Mbps LAN connection is sufficient for most use cases.

The Remote Control / Imaging package contains a perpetual license for the Radmin Remote Control software, which is compatible with all Windows OS versions available on the Microscope and Support computers.

1094684 Triple Monitor Stand

Sturdy, high quality, ergonomic stand for holding three 24" LCD monitors. The adjustable design allows the operator to position the monitors at eye level, improving the ergonomics of the workspace.

This item (1094684) is mandatory when an additional 24" LCD monitor (1016773) is selected.

1218296 Windows 10 Support Computer

The support computer enables the user to grow with the speed of computer peripheral innovations during the lifetime of the system without affecting the microscope controller and endangering system uptime. The support computer is a second computer, connected to the microscope controller with an Ethernet connection, that takes over the data management task from the microscope controller (which remains dedicated to microscope operation).

The sample data management solutions enabled by the support computer are:

- It is possible to use the support computer for hosting 3rd party software/hardware that is not part of the microscope (e.g. MS Office, CorelDraw) or for gaining performance for the microscope controller.
- The support computer has a video adapter to connect two monitors for having multiple applications visible that makes it easier to work with.
- The support computer has a second Ethernet card to connect to the LAN or WWW. Local IT departments have access to the support computer for (external) network configuration purposes. Internal networking (to the microscope controller) remains the responsibility of Thermo Fisher Scientific.
- The support computer may be loaded and/or upgraded with the user's preferred anti-virus software, office-suite, printer drivers, email and Internet browser software.
- The computer is delivered with a 24" widescreen LCD monitor and software that enables controlling the microscope controller and support computer by only one mouse and one keyboard. Switching between computers and monitors is fully controlled by the software.

Additional features of the support computer are:

- Equipped with the Microsoft Windows 10 operating system
- 16 GB RAM, Intel Core i5 8500 processor or higher
- The hard disk of the support computer has 1 TB NVME SSD or higher storage capacity.
- Integrated graphics card Intel UHD 630

Thermo Fisher Scientific's warranty and service responsibilities for the support computer are restricted to the delivered configuration, with service arrangements comparable to service arrangements offered by regular computer vendors.

FP 6343/02 Mains Matching and Isolation Transformer

The mains matching and isolation transformer provides a galvanic isolated, AC-regulated output voltage of 115 or 230 V, 50 or 60 Hz from the local grid.

4022 400 43811 CIP Brno / Named place of destination in North America (T-1)

Carriage and Insurance Paid to named place of destination in North America Incoterms 2020. The Seller is responsible for the cost of freight up to the point where the goods are delivered to a specified destination. The risk of loss or damage passes to the Buyer at the moment the goods have been delivered to and put under the custody of the first carrier or Buyer. The Seller shall also procure insurance against Buyer's risk of loss or damage during transit. In accordance with Thermo Fisher Scientific's standard terms and conditions of sale, title transfers at the same point that risk of loss transfers.

1152412 Site Survey Snapshot

As the specifications of high-performance microscopes ("Systems") are constantly being improved, the demands on the location where the System is installed have become more critical. Environmental factors, such as, acoustics, floor vibration and AC/DC electromagnetic interference (EMI) can have a negative impact on the overall System performance. In order to meet the specifications of these high-performance Systems for optimal performance, the environment in which the System is installed should be evaluated for such environmental factors whether it is an existing facility or building a new one.

With the Site Snap-Shot Measurement package, Thermo Fisher Scientific offers a complete snap-shot Site measurement at one location using specially designed instrumentation to take the instantaneous measurements.

More specifically, the service “*Site Survey Snapshot*” includes:

- Comprehensive Site Survey with the following measurements:
 - Tri-axial floor vibration measurements (averaged, peak hold, or waterfall based on the dominant vibration source characteristic)
 - Electro Magnetic Interference (EMI) measurements
 - DC/Near DC EMI [0-10Hz] measurements caused by moving objects (elevator, large vehicles), MRI, DC Subways, electrified buses
 - EMI AC [10-2kHz] caused by AC power sources, cables, trains. Tri-axes measurement at different heights and/or different positions
 - Sound Pressure Level (SPL) measurements
- Report of the snap-shot measurements, with results and analysis of the environmental room conditions.

1120431 SEM Starter Kit

The SEM Starter Kit is a complete set of tools that are required to run a scanning electron microscopy laboratory. The kit contains a stereo microscope, several types of tweezers, a range of sample stubs, different types of sample mounting glue or tape, gloves, storage boxes, and other tools and supplies.

FP 6735/00 Set of 20 Specimen Stubs for SEMs

Set of 20 Specimen Stubs for SEMs

9425 060 99100 On-site Applications Training - Americas (1 day)

On-site applications training, per day, including all travel and expenses. For customers located in the Americas. Training will be fully customized to the customer needs and is typically delivered in blocks of two (2) to three (3) consecutive days. This training will usually be provided by the USA-based NanoPort team and should be scheduled within one (1) year of microscope installation completion (or within one (1) year of purchase in case training is not ordered as part of a microscope purchase).

1403153 Remote Applications Training - Americas (1 day)

Remote Applications Training provides a fully customizable, remote training solution for Thermo Scientific SEM, DualBeam, microCT, and TEM systems. Training is delivered on the customer microscope, which is accessed remotely by the NanoPort specialist via a secure connection, and by using the most advanced technology available. Training sessions are delivered in blocks of one (1) day and are tailored to the individual needs and experience level of the customer.

Remote Applications Training facilitates the online participation of multiple attendees, with no limit on the number of those joining the training.

This Remote Applications Training (1403153) should be scheduled within one (1) year of microscope installation completion (or within one (1) year of purchase, in case the training is not ordered as part of a microscope purchase).

Terms & Conditions

Terms and Conditions of Sale

Any order by the original buyer ("**Buyer**") of the goods and/or services specified in this quotation ("**Quote**") issued by or on behalf of FEI Company or its subsidiary ("**Company**") is subject to the following terms and conditions. "**Equipment**" shall mean the goods and services specified in this quotation. Equipment, including any repair parts, may include reconditioned or refurbished parts or components and until July 2024 repair parts may contain lead, cadmium, hexavalent chromium, and PBDE in accordance with Annex IV, point 31a, to European directive 2011/65/EU. Unless otherwise agreed, this Quote is valid for 30 days from the date of issuance.

Scope. The Quote, including this Confirmation of Purchase Terms and Conditions of Sale, contains all agreements of the parties with respect to goods and services provided by Company to Buyer ("**Agreement**"), supersedes all preceding quotations and is in lieu of all other agreements (oral or written). This Agreement may be amended or modified only by a specific written amendment signed by the parties. Company hereby rejects and disclaims any rights of Buyer contained, or obligations imposed upon Company, in any document provided, referenced or otherwise submitted by Buyer, in each case, that Company has not expressly included in these [terms and conditions] or a writing manually executed by Company (including, without limitation, any rights of Buyer in respect of designs, specifications, source code or intellectual property, owned, created, developed or licensed, by Company; any rights to items or services not specifically identified in Company's quotation; any audit rights or financial offset rights of Buyer; any penalties or liquidated damages imposed upon Company; any obligation by Company to comply with Health Insurance Portability and Accountability Act of 1996 (as amended), Current Good Manufacturing Practice regulations (as amended), the requirements, as amended, of the Customs-Trade Partnership Against Terrorism or any code of conduct, quality program, information security program, background or drug screening program or other guidelines, programs or policies, in each case, promulgated or required by Buyer; any obligation that Company comply with any law that, under law, would not otherwise apply to Company in respect of the transaction(s) contemplated hereby; any right of Buyer to withhold all, or any portion, of the purchase price of any products or services provided hereunder for any period of time; any right of Buyer, itself or through any third party, to remediate any defects in, replace or re-perform, any products or services provided hereunder at Company's cost or expense; any obligation of Company to waive, or require its insurers to waive, any rights of subrogation; any obligation of Company that would impair, restrict or prohibit Company's ability to freely conduct any business with any person or in any geography or market; any early-payment, or other, discount; any obligation of Company to maintain a supply of spares, or otherwise make any services available, for any particular period of time; any representation, warranty or other obligation of Company to provide pricing comparable to, or more favorable than, the pricing that Company provides to others; any restriction of, or prohibition on, Company's ability to modify, change or discontinue any of its products, processes or services; or any waiver by Company of any right to enforce any of the terms hereof).

1. **Prices.** Prices do not include any duties, freight, shipping, insurance or taxes unless specifically noted. Buyer shall pay such amounts directly or reimburse Company for all such amounts.
2. **Payment Terms.** Invoices will be issued by Company as follows, each due thirty (30) days from the date of invoice:
 - (i) 30% of the purchase price invoiced upon receipt of order document from Buyer ("**Order Retainer**");
 - (ii) 60% of the purchase price invoiced upon delivery in accordance with the Incoterm; and
 - (iii) 10% of the purchase price invoiced upon acceptance ("**Acceptance Payment**").

Notwithstanding the foregoing, with respect to orders totaling less than US\$100,000 (or local equivalent), 100% of the purchase price shall be due and payable within thirty (30) days from the date of invoice, which will be issued by Company upon shipment. In case of late payment, Buyer shall pay Company interest on unpaid invoices at the rate of one and one-half percent (1½%) per month (but in no event greater than the maximum rate allowed under applicable law).

3. **Site Preparation; Installation.** Except as otherwise noted, Company or its representative or subcontractor will install Equipment without charge, and at time of installation will provide basic system testing. Company will furnish Buyer with the pre-installation site requirements. Buyer will furnish a safe and suitable place for installation of the Equipment in accordance with Company's standard procedures and pre-installation guide. If Buyer's site is not ready by the planned delivery date, or if the site does not meet Company's published specifications, Company is entitled to invoice Buyer for the Acceptance Payment and any applicable storage, insurance and any additional accrued freight costs. If Buyer causes the condition of the site to change such that the Equipment no longer meets the specifications, Company shall have no obligation to meet the specifications previously attained.
4. **Shipping.** Shipping terms are the Incoterm shown on the front part of this Quote (Incoterms 2020). "Delivery" shall occur as specified in the Incoterm.
5. **Risk of Loss and Title Transfer.** Risk of loss passes to Buyer in accordance with the Incoterm applicable to this order and title transfers at the same point. Buyer grants to Company a security interest in the items sold hereunder to secure the payment when due by Buyer of the purchase price and the performance by Buyer of its other obligations hereunder. Buyer authorizes Company to file any financing statement deemed necessary or desirable by Company to perfect its security interest in the items sold. Failure by Buyer to pay the purchase price when due, or otherwise to perform under this Agreement, shall give Company the

unlimited right, without liability, to take possession of the Equipment, with or without notice, and to have all of the remedies of a secured party under applicable law in addition to and not exclusive of other rights and remedies available to Company under applicable law. The security interest shall remain with Company, at Buyer's risk, until the purchase price and all other amounts payable by Buyer hereunder have been paid.

6. **Acceptance.** Equipment will be deemed accepted on completion by Company (or Company's representative) of Company's applicable published acceptance tests or such other acceptance test that is expressly set forth in this Quote. If the Equipment initially fails the acceptance tests, Company shall have a reasonable opportunity to repair the Equipment and re-perform the acceptance tests. Acceptance of Equipment constituting a single system cannot be delayed due to failure of other Equipment constituting a separate system to meet acceptance tests. Any use of the Equipment by Buyer, its employees or agents prior to acceptance that delays acceptance of the Equipment will constitute Buyer's acceptance of the Equipment. If acceptance is delayed through no fault of Company beyond sixty (60) days from Delivery, Company reserves the right to invoice Buyer for the Acceptance Payment. Buyer shall give Company written notice of acceptance and such acceptance shall not be unreasonably delayed or withheld.

7. **Training/Applications Support/User Guide.** Training, if any, specified in this Quote is valid for use for twelve (12) months from the date of acceptance of the Equipment. Costs of travel and related expenses for Buyer's employees to and from the training location are Buyer's responsibility. Intellectual property or developments arising out of applications support, if any, specified in this Quote shall be subject to the provisions of this Section unless the parties have entered into a separate written agreement. The rights to any Intellectual Property (as defined below) developed by Company (either solely or jointly with Buyer) in connection with the services provided shall vest with Company. Buyer shall execute all documents reasonably required by Company to evidence Company's ownership in such Intellectual Property. Buyer is hereby granted free of charge a worldwide, irrevocable, perpetual license to such developed Intellectual Property for internal use in connection with the Equipment. "**Intellectual Property**" means all present and future (a) patent rights, (b) copyrights, mask work rights, and other rights associated with works of authorship, (c) trade secret rights, and (d) other forms of intellectual or industrial property rights and proprietary rights of any kind or nature including rights under and with respect to all applications, registrations, extensions, and renewals of the foregoing. Company will provide its standard user's guide with the Equipment, if any, free of charge. Such guide will be in the English language and may be provided in electronic form. Upon Buyer's request, Company provides the user's guide in local languages or in a non-electronic format.

8. **Warranty.** Company warrants to the original Buyer of the Equipment that the Equipment will be free from material defects for a period of twelve (12) months from the date of acceptance or fourteen (14) months from the date of Delivery if installation is delayed through no fault of Company, whichever occurs first plus any additional warranty period as noted on the Quotation ("**Warranty Period**"). Consumables will only be replaced under the warranty if they have failed prior to the end of their ordinary useful life. Consumables are excluded from the warranty under any additional warranty period beyond the standard 12 month period. Any Equipment repaired or replaced under this warranty is warranted only for the unexpired part of the original Warranty Period applicable to that Equipment. Warranties for third party items are the sole responsibility of the third party vendor. The warranty set forth above ("**Warranty**"), if any, does not apply and shall be of no force and effect if Buyer modifies the Equipment, uses the Equipment with other than Company-supplied parts or products designated "Works with FEI" or the equipment is maintained or repaired by parties other than Company authorized personnel. In addition, the Warranty shall not apply to, and Company shall have no responsibility for, defects caused in whole or in part by accident, vandalism, abuse, wrongful act, neglect, failure to use proper operational and safety procedures, improper integration, installation, application or maintenance or the use of Works with FEI products outside of the Company approved parameters. Company's sole obligation under the Warranty is to provide one of the following remedies, in Company's sole reasonable discretion: repair, replacement or removal and refund of purchase price. THE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED OR STATUTORY, WITH RESPECT TO THE EQUIPMENT. NO WARRANTIES SHALL ARISE UNDER THIS AGREEMENT FROM COURSE OF DEALING, COURSE OF PERFORMANCE OR USAGE OF TRADE. COMPANY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT AND FITNESS FOR ANY PARTICULAR PURPOSE.

9. **Maintenance.**

(a) Definitions: (i) "**Maintenance**" means the services provided by Company or its representative under Company's Maintenance Policy in effect at the time such services are ordered. (ii) "**Maintenance Fee**" means the annual fee charged Buyer by Company for Maintenance. (iii) "**Maintenance Period**" means a period during which Company makes Maintenance available (which is ordinarily a one-year, renewable period), except as otherwise specified by Company. (iv) "**Maintenance Policy**" means Company's Maintenance Policy regarding the applicable Equipment (which may differ by type of product and service level), initially as in effect on the date of this Quote and as may be modified from time to time thereafter as set forth herein.

(b) Company's standard level Maintenance services applicable to the Equipment as noted in the Quotation specifications, if any, will be provided to Buyer at no additional charge during the Warranty Period, if any. For as long as Company provides Maintenance for the Equipment, Company will make Maintenance available to Buyer for purchase; provided that Maintenance may not be available if Buyer has installed third party items on the Equipment other than those sold by Company or which are part of the Works with Company program. Company reserves the right to alter its standard Maintenance Policy from time to time, but will not reduce the level of Maintenance during any Maintenance Period for which a Maintenance Fee has been paid. Company makes available premium levels of Maintenance for many of its products and the price for such services can be quoted by Company on

Buyer's request.

10. **LIABILITY.** (A) IN NO EVENT SHALL COMPANY OR ITS SUPPLIERS BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES (INCLUDING LOST PROFITS OR LOST DATA) WHETHER OR NOT COMPANY IS INFORMED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE. EXCEPT AS EXPRESSLY PROVIDED HEREIN, COMPANY DISCLAIMS ALL OTHER LIABILITY TO BUYER OR ANY OTHER PERSON IN CONNECTION WITH THIS AGREEMENT OR THE DELIVERY OR NON-DELIVERY, SALE, MAINTENANCE, USE OR PERFORMANCE OF EQUIPMENT, INCLUDING SPECIFICALLY, BUT WITHOUT LIMITATION, LIABILITY FOR NEGLIGENCE OR STRICT LIABILITY IN TORT.

(B) NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, IN NO EVENT SHALL COMPANY'S OR COMPANY'S SUPPLIERS' LIABILITY UNDER THIS AGREEMENT EXCEED THE PURCHASE PRICE PAID FOR THE EQUIPMENT BY BUYER. BUYER ACKNOWLEDGES THAT THE PRICING OF THE EQUIPMENT AND THE OTHER TERMS AND CONDITIONS OF THIS AGREEMENT REFLECT THE ALLOCATION OF RISK SET FORTH IN THIS AGREEMENT AND THAT COMPANY WOULD NOT ENTER INTO THIS AGREEMENT WITHOUT THESE LIMITATIONS OF ITS LIABILITY.

11. **Cancellation of Order.** If Buyer cancels the order prior to shipment, then Buyer shall pay Company the following amount: (a) for standard Equipment: if written cancellation notice is given 61-180 days prior to scheduled shipment date, 30% of total purchase price; 0-60 days prior to scheduled shipment date, 50% of total purchase price; (b) for non-standard Equipment: if written cancellation notice is given 61-180 days prior to scheduled shipment date, 50% of total purchase price; 0-60 days prior to scheduled shipment date, 75% of total purchase price. Because of the difficulty of determining Company's actual damages upon cancellation by Buyer, Company and Buyer agree that the above amounts are reasonable estimates of actual damages and constitute liquidated damages and not penalties.

12. **Software License.** Software shall be subject to the standard Company licenses in existence as of the date of your purchase order for the listed product. Software licenses for Company manufactured software products are available at <https://www.fei.com/legal/software/>. You may also request copies of the licenses from Company.

13. **Force Majeure.** In addition to any excuse provided by applicable law, Company shall be excused, and free from liability for any failure to perform arising out of any event beyond Company's reasonable control, whether or not foreseeable by either party, including, but not limited to, labor disturbance, strike, war, fire, accident, adverse weather, inability to secure transportation, governmental act or regulation, or the inability of Company to obtain raw materials.

14. **Confidentiality.** Buyer understands that in the course of Company performing its obligations hereunder, Company may disclose confidential information ("**Confidential Information**"), to Buyer. Buyer may use Confidential Information only to assist Company in performing its obligations hereunder. Buyer agrees not to disclose Confidential Information, directly or indirectly, to any third party. Buyer may, however, disclose Confidential Information to its employees who have a need to know and are bound by confidentiality obligations no less restrictive than those set forth herein. Buyer will protect the Confidential Information using the same degree of care it uses to protect its own confidential information, but no less than a reasonable degree of care. Buyer's obligations of confidentiality hereunder shall not apply to information which: (a) is now, or hereafter becomes, through no act or failure to act on the part of Buyer, generally known or available; (b) is independently known by Buyer at the time of receiving such information; (c) is hereafter furnished to Buyer by a third party without a breach of any obligation to Company; (d) is independently developed by Buyer without using Company's Confidential Information or breaching this Agreement; or (e) is required by law to be disclosed in response to a valid order by a court or other governmental body, provided Buyer gives Company prompt written notice of such requirement prior to disclosure so that Company may attempt to obtain an order protecting such information from public disclosure. Buyer's obligation under this Section shall survive the termination or expiration of this Agreement.

15. **Miscellaneous.**

(a) Buyer may not assign or transfer this Agreement in whole or in part, by operation of law or otherwise, without the written consent of Company.

(b) If any term or provision of this Agreement or its application to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby, and each such term and provision of this Agreement shall be valid and shall be enforced to the fullest extent permitted by law.

(c) All notices required to be sent hereunder shall be in writing and a notice shall be deemed to have been given upon (i) the date sent by confirmed facsimile, (ii) on the date it was delivered by recognized express courier or by hand delivery, or (iii) if by certified mail return receipt requested, on the date received.

(d) No waiver of any provision of this Agreement shall be deemed or shall constitute a waiver of any other provision, whether or not similar, nor shall any waiver constitute a continuing waiver. No waiver shall be binding unless executed directly by the party making the waiver.

16. **Export Controls.** Buyer will not export or re-export, either directly or indirectly, any Equipment or system incorporating such Equipment without first obtaining any required license or other approval from the appropriate host government, other applicable authorities, including but not limited to the U.S. Department of Commerce (or any other agency or department of the U.S. Government with appropriate authority), the Dutch Ministry of Foreign Affairs (Ministerie van Buitenlandse Zaken) and Czech Ministry of Industry and Trade (MPO); and/or from Company when applicable. If the delivery of products, services and/or documentation becomes (1) subject to export license, or (2) restricted or prohibited due to (changed) regulations, Company may

suspend its obligations and/or terminate the relevant order in all cases without incurring any liability towards the Buyer.

17. **Reference.** With prior approval of Buyer, Company may identify Buyer as a user of Company's products or services in: (i) communications with other customers, potential customers, industry analysts, financial analysts and the like; and (ii) in press releases, sales materials, sales brochures, advertising, on the Company website and in other similar ways.

18. **Governing Law.** This Agreement shall be governed by the laws of the State of Oregon, including without limitation its Uniform Commercial Code but excluding its conflict of laws rules. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to this Agreement or sales made pursuant hereto.

Quotation Acceptance

Thermo Fisher Scientific
Account Manager Terry Glaab
Phone +1 (773) 230-0679
Email terry.glaab@thermofisher.com

To accept this Quotation, please sign below, and fax this page along with your purchase order to your Account Manager listed above. The terms and conditions in this Quotation supersede and replace the terms in any previously sent Quotation and in any of your purchase orders relating to this order, and will exclusively control and govern the rights and obligations of Thermo Fisher Scientific and your entity with respect to this order (any additional or different terms contained in your purchase order will not be binding upon Thermo Fisher Scientific and are expressly deemed rejected). Thermo Fisher Scientific will send you an order acknowledgement upon Thermo Fisher Scientific receipt and acceptance of this Quotation Acceptance Form

Agreed and accepted:

Name of Purchasing Entity _____

Authorized Signature _____

Signed by Name _____

Date _____



KENTUCKY STATE UNIVERSITY BOARD OF REGENTS

ACTION ITEM 5B

ACTION ITEM

Approval of pending personnel actions.

FACTS

House Bill 250, an act relating to Kentucky State University, was signed into law on April 8, 2022. Pursuant to that Bill, the Council on Postsecondary Education must approve all KSU expenditures over \$5,000. To carry out this responsibility, the Council adopted a KSU Expenditure Approval Policy, which requires all personnel actions to be approved by the Kentucky State University Board of Regents or its designated Committee before any resulting expenditures will be approved.

BUDGETARY IMPLICATIONS

The Kentucky State University Budget Office has approved all proposed positions and salary ranges.

RECOMMENDATION

Interim President Ronald A. Johnson recommends that the Board of Regents approve the pending personnel actions.

MOTION

Approve the pending personnel actions.

Grant-Funded Position Vacancy Authorization

Position Title	Department	Annual Salary *	Fringe Benefits (38%)	Total Compensation	New/Existing
Diversity Equity & Inclusion Compliance Coordinator (\$45,000-\$50,000)	College of Agriculture, Community, and the Sciences	\$ 50,000	\$ 19,000	\$ 69,000	New
Area Extension Agent for Forestry and Non-Timber Forest Products (\$45,000-\$50,000)	College of Agriculture, Community, and the Sciences	\$ 50,000	\$ 19,000	\$ 69,000	New
Area Extension Agent for Environment Education (\$45,000 - \$50,000)	College of Agriculture, Community, and the Sciences	\$ 50,000	\$ 19,000	\$ 69,000	New
Senior State Specialist Human Nutrition and Health Equity (\$70,000 - \$75,000)	College of Agriculture, Community, and the Sciences	\$ 75,000	\$ 28,500	\$ 103,500	New
Counselor 1 Student Support Services (\$40,000-\$43,000) TRIO GRANT	Student Engagement	\$ 43,000	\$ 16,340	\$ 59,340	Existing
Executive Director of Counseling and Advising (\$85,000-\$90,000) (50% E&G & 50% Title III)	Student Engagement	\$ 90,000	\$ 34,200	\$ 124,200	Existing
Total Cost		\$ 358,000	\$ 136,040	\$ 494,040	

E&G-Funded Position Vacancy Authorization						
Position Title	Department	Annual Salary *	Fringe Benefits (38%)	Total Compensation	New/Existing	Justification **
Executive Administrative Assistant (\$55,000-\$65,000)	Academic Affaris	\$ 65,000	\$ 24,700	\$ 89,700	Existing	Continue to meet the needs of the Department to ensure efficiency
Athletic Budget Specialist (\$45,000-\$50,000)	Athletics	\$ 50,000	\$ 19,000	\$ 69,000	Existing	Continue to meet the needs of the Department to ensure efficiency
Total Cost		\$ 115,000	\$ 43,700	\$ 158,700		



KENTUCKY STATE UNIVERSITY BOARD OF REGENTS

ACTION ITEM 5C

ACTION ITEM

Approval of head football coach contract.

FACTS

Mr. Felton Huggins, Jr., has been selected to serve as the University's head football coach. His employment will be governed by a three-year contract, which will conclude on February 12, 2026. Pursuant to Article II, Section 2(p) of *The Gold Book*, Mr. Huggins' contract must be approved by the Board of Regents, as it is for an amount that exceeds \$50,000.

BUDGETARY IMPLICATIONS

The Kentucky State University Budget Office has approved the position and salary. Per the contract, Mr. Huggins will be paid an annual salary of \$88,000. Additionally, he will be eligible for certain performance-based bonuses.

RECOMMENDATION

Interim President Ronald A. Johnson recommends that the Board of Regents approve the head football coach contract.

MOTION

Approve the head football coach contract.

HEAD FOOTBALL COACH EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (“Agreement”) is between Kentucky State University (“KSU”) and Felton Huggins (“Coach”) (collectively, “the Parties”).

For and in consideration of the mutual promises and covenants set forth herein, the Parties agree as follows:

I. PURPOSE

The Parties want to enter into this Agreement because KSU wishes to employ Coach as the Head Football Coach for the period described herein, and Coach wishes to serve the entire term of this Agreement for the consideration described herein. The Parties recognize and agree that although this Agreement is athletics-related, the primary purpose of KSU and, accordingly, all its legal arrangements, including this Agreement, is the furtherance of its educational mission.

II. DEFINITIONS

The terms included within this section shall have the following meanings, which shall remain the same throughout the entirety of this Agreement.

“NCAA” shall mean the National Collegiate Athletic Association.

“SIAC” shall mean the Southern Intercollegiate Athletic Conference, of which KSU is a member.

“Governing Athletic Rules” shall mean any and all present or future legislation, regulations, rules, directives, bylaws, written policies, and constitutions, and official or authoritative interpretations thereof, as well as any and all amendments, supplements, or modifications thereto that are hereafter promulgated by the NCAA or SIAC, or by the Athletic Director for KSU (“the Athletic Director”) in the conduct or administration of intercollegiate athletics.

“University Policies” shall mean *The Gold Book*, the bylaws of KSU’s Board of Regents (“the Board of Regents”), and/or the rules and policies of KSU.

“Football Program” shall mean the KSU Football Program, including its staff and student-athletes.

III. OFFER OF EMPLOYMENT

A. Employment under this Agreement is contingent upon acceptance and execution by the Parties, which must be in writing.

B. The term of this Agreement shall begin on the date of full approval by the Board of Regents and shall terminate on February 12, 2026, unless renewed.

C. This Agreement is the sole instrument governing the terms and conditions of Coach’s employment.

D. To extend or renew the term of this Agreement, the Parties must sign a written agreement, and Coach agrees that any oral agreements to extend or renew this Agreement are invalid and non-binding.

E. This Agreement in no way grants to Coach a claim to tenure in employment or any years of employment attributable to tenure with KSU.

F. Coach acknowledges that for administrative purposes only, KSU may issue him an Electronic Personnel Action Form (EPAF) from time to time, and Coach acknowledges and agrees that any EPAF issued relating to his employment shall not constitute a contract and shall not in any way supersede, modify, or amend the terms and conditions of this Agreement.

G. Coach agrees that employment under this Agreement is contingent upon completion of, to the satisfaction of KSU, a check of Coach's criminal records, educational history, and employment history, as well as any other background checks deemed necessary by KSU.

H. Coach agrees that employment under this Agreement is contingent upon the Board of Regents' approval pursuant to Article II, Section 2(p) of *The Gold Book*.

IV. HEAD FOOTBALL COACH'S SERVICES AND RESPONSIBILITIES

A. Coach shall serve as KSU's HEAD FOOTBALL COACH and shall report to the Athletic Director. Within the limitations established by University Policies, Coach shall have each and all of the duties and responsibilities of Head Football Coach and such other or different duties on behalf of KSU that may be assigned by the Athletic Director from time to time. During the term hereof, Coach shall observe and conform to University Policies. Coach has a duty to cooperate with the NCAA, SIAC, and KSU and to furnish them with truthful and complete information concerning involvement in, or knowledge of, any rules violation. Education on applicable rules of the position, satisfactory knowledge of rules and activities of the Football Team, and documentation of compliance activities are mandatory requirements of the Head Football Coach position. The Athletic Director will evaluate Coach based upon his performance in these areas.

B. Coach shall devote his entire business time, attention, and energy exclusively to the business and affairs of KSU as they currently exist and as they may hereafter be changed. Coach shall not participate in any other football coaching activities without express authorization provided by KSU's President. However, Coach may serve as a member of the board of directors of other organizations that do not compete with KSU and may also participate in other professional, civic, and governmental organizations and activities that do not materially affect his ability to carry out his duties hereunder.

C. Coach agrees and warrants that he shall use his best efforts and a high degree of care and skill to perform the services required by KSU. Coach further agrees that he shall, at all times, operate in good faith when performing his obligations under this Agreement. However, Coach makes no other warranties or guarantees regarding his services or the results thereof.

D. Coach shall have the authority to recommend athletics personnel for employment in accordance with the budgetary allowances of the Athletics Department and subject to KSU approval. Coach and the Athletics Department staff shall be subject to all University Policies.

V. HEAD FOOTBALL COACH'S DUTIES

The duties of the Head Football Coach shall include, but are not limited to, the following:

A. Direct and conduct the Football Program in a manner consistent with the educational purpose, traditions, integrity, and ethics of KSU;

B. Support and encourage the educational pursuits of his student-athletes and diligently attempt to ensure that his student-athletes make progress in their defined degree programs;

C. Use his best efforts to ensure that all academic standards, requirements, and policies of KSU are observed, including those relating to the recruitment and eligibility of perspective and current student-athletes who are academically qualified;

D. Conduct himself and the Football Program in accordance with the traditionally high standards of the coaching profession and with the constitution and bylaws of the SIAC and the NCAA, all state and federal laws, and all University Policies and University procedures;

E. Use his best efforts to ensure that his student-athletes conduct themselves in a sportsmanlike manner and in a manner that will result in a positive image for KSU on and off the playing field;

F. Conduct himself in a sportsmanlike manner and in a manner that will serve as a positive influence on his student-athletes;

G. Maintain responsibility for the fiscal and budgetary functions of the Football Program and refrain from incurring debt on behalf of KSU;

H. Conduct travel within the allotted budget as deemed necessary to carry out the duties and responsibilities of the position of Head Football Coach, and in accordance with established University Policies and University procedures;

I. Maintain responsibility for the supervision of assistant staff and their activities, including, *inter alia*, supervision and evaluation of their compliance with applicable legislation and regulations and the constitutions and bylaws of the SIAC and the NCAA;

J. Conduct recruiting activities, practices, game preparations, and coaching duties in a manner that develops and maintains a football program of high quality that is competitive within the SIAC and the NCAA.

K. Maintain and enforce any and all disciplinary policies and drug policies of KSU;

L. Participate in, as directed by the Athletic Director or designee, fundraising and developmental activities in support of KSU;

M. Participate in, as directed by the Athletic Director or designee, television, radio, and other media broadcasts dedicated to KSU (including, but not limited to, pre-game interviews, post-game interviews, call-in radio and sports shows, weekly coach's shows, and any special broadcast related to bowl or championship games);

N. Help KSU fulfill its contract with commercial vendors regarding the procurement and endorsement of apparel, equipment, and services in support of KSU's Football Program and Athletics Department;

O. Initiate and maintain a comprehensive athletic fundraising program, which shall include, *inter alia*, solicitations of non-state or private revenue sources;

P. Serve as an active member of the Head Coach community; and

Q. Perform other duties as may be assigned.

Additionally, Coach agrees to maintain all duties and best practices normally associated with the position of Head Football Coach, which include adherence to the directives of the Athletics Program as established by the Athletic Director or designee. Coach also agrees that NCAA Bylaws 11.1.1 is applicable to him and that any major violations of these provisions shall be subject to disciplinary or corrective action as set forth in the NCAA enforcement. The Parties further recognize that a student-athlete may be declared ineligible for competition due to academic reasons, a disciplinary sanction under KSU's Athlete Code of Conduct, or KSU's belief that the student-athlete is ineligible according to the rules for athletic competition specified by the SIAC or the NCAA. The decision regarding a student-athlete's ineligibility may be made by either Coach, the Athletic Director, or KSU's President. The Parties agree that in no event shall an action taken by KSU be considered a breach of this Agreement.

VI. CONFIDENTIALITY

A. Coach understands and agrees that in the course of his employment with KSU, he will receive and become aware of information, projects, practices, customer contacts, potential customers, methodologies, and management philosophies relating to KSU's business. Coach hereby acknowledges the sensitivity and confidential nature of such information and covenants and agrees to keep all information strictly confidential as required by law. In this regard, Coach shall not, at any time or in any manner, either directly or indirectly, divulge, disclose, communicate, or use the information he obtains or is otherwise exposed to while employed by KSU.

B. Coach also understands and agrees that such information may not be disclosed to any third parties without the express, written consent of KSU unless disclosure is compelled by court order or by operation of law. Coach further agrees that in the event of an unauthorized disclosure of confidential information, monetary damages may not be sufficient to cure any breach of this provision. Therefore, Coach also acknowledges and agrees that KSU shall be entitled to seek injunctive relief for any breaches of confidentiality in addition to any monetary damages that may also be sought.

VII. COMPENSATION

A. As consideration for satisfactory performance of the services and conditions described herein, the annual salary for the position of HEAD FOOTBALL COACH is hereby set as follows:

1. Coach shall receive an annual salary of \$88,000 for the period beginning February 13, 2023, and ending February 12, 2024.

2. Coach shall receive an annual salary of \$88,000 for the period beginning February 13, 2024, and ending February 12, 2025.

3. Coach shall receive an annual salary of \$88,000 for the period beginning February 13, 2025, and ending February 12, 2026.

This salary is based on a full-time, twelve-month period commencing on February 13, 2023. Coach's salary shall be paid by direct deposit on a monthly basis and on the normal pay dates for other KSU personnel.

B. Coach shall be entitled to any supplemental or fringe benefits generally made available to regular full-time, exempt employees of KSU, pursuant to University Policies, with such benefits including, *inter alia*, insurance and retirement benefits. Neither the Board of Regents nor KSU shall be responsible for any other compensation or monetary benefit of any kind to Coach unless such other compensation or benefit is specifically set forth herein. Coach shall be responsible for paying any local, state, and federal personal income taxes, or any other taxes due or owed as a result of his receipt of any compensation or benefits paid pursuant to this Agreement.

C. Coach acknowledges that during the term of this Agreement, the Athletic Director has the right to unilaterally reassign other Athletics Department-related duties to Coach in accordance with his skills and qualifications. The Athletic Director shall provide reasonable notice to Coach of such reassignment, which shall not be predicated upon any condition precedent to such assignment. Any reassignment serves as an authorized personnel action of KSU and may be performed, in the best interest of KSU, for any reason deemed satisfactory by KSU, or for no reason. Should such reassignment occur, KSU agrees to compensate Coach according to the same salary set forth in this Agreement. In the event of such a reassignment, any public statements or announcements shall be mutually agreed upon in writing.

VIII. BENEFITS

A. Coach shall be entitled to all vacation, sick, and holiday leave and fringe benefits offered to other KSU employees, which include, *inter alia*, insurance and retirement benefits in accordance with University Policies. Coach shall be eligible for salary increases during the term of this Agreement at such times and in such amounts, if any, as determined by KSU's President in his sole and absolute discretion.

B. KSU shall reimburse Coach for all travel and out-of-pocket expenses reasonably incurred by him for the purpose of, or in connection with, the performance of his duties as described in this Agreement. Upon KSU's receipt of vouchers and other required documents from Coach which itemize his incurred expenses in reasonable detail, reimbursement shall be made in accordance with the travel policy of KSU, the laws and regulations of the Commonwealth of Kentucky, and the regulations of the NCAA.

IX. OUTSIDE OR SUPPLEMENTAL EMPLOYMENT

A. Coach agrees to not accept any supplemental employment opportunities without the prior consent of the Athletic Director. In the event that Coach is, as of the effective date of employment, receiving outside or supplemental employment, or is operating as an independent contractor, he shall disclose such information, including, *inter alia*, the amount and source of the outside or supplemental compensation, outside or supplemental employment, or independent contractor earnings. KSU has the right to require, in accordance with this Agreement, that Coach forgo such outside or supplemental compensation, outside or supplemental employment, or independent contractor projects.

B. Outside activities shall only be allowed subject to specific reporting requirements as established by KSU. In accordance with NCAA requirements, Coach shall report annually to the Athletic Director all athletic-related income from sources outside KSU. To verify this report, KSU shall receive prompt access to all related records of Coach.

X. PERFORMANCE-BASED INCENTIVES

A. Coach shall be entitled to receive additional compensation from KSU in the form of performance-based incentives, as listed below, for specific and measurable achievements. Coach shall be eligible to receive such performance-based incentives provided that the Football Program is in compliance with NCAA, SIAC, and KSU policies and regulations and that there are no pending or active NCAA or SIAC investigations into major violations of which Coach knew or should have known. Such performance-based incentives shall also be contingent upon Coach's satisfactory performance of the services, responsibilities, and duties delineated in Sections IV and V, as reflected by his most current annual employee performance review. Coach also acknowledges that receipt of any performance-based incentives are also contingent on the availability of non-state-appropriated funds available to the Athletics Department. Performance-based incentives are calculated as follows:

1. GRADUATION RATE BONUS

In any contract year in which the overall academic performance of the student-athletes participating in the Football Program meets or exceeds an annual cumulative grade point average (GPA) of 3.0 (based on the ASR cohort) AND if the teams' ASR meets or exceeds the NCAA multi-year average:

- (a) Coach will receive additional compensation from KSU in the form of a bonus in an amount equal to One Thousand Five Hundred Dollars (\$1,500); and
- (b) Each assistant coach will receive additional compensation from KSU in the form of a bonus in an amount equal to Five Hundred Dollars (\$500).

2. SIAC CHAMPIONSHIP BONUS

In any contract year in which the Football Team wins the SIAC Championship outright or is named Co-Champion of the SIAC:

- (a) Coach will receive a bonus in the amount of Five Thousand Dollars (\$5,000); and
- (b) Each assistant coach will receive a bonus in the amount of One Thousand Dollars (\$1,000).

Postseason: In the event the Football Team receives an automatic bid to the Division II

- (a) Coach will receive a bonus in the amount of Five Thousand Dollars (\$5,000); and
- (b) Each assistant coach will receive a bonus in the amount of One Thousand Dollars (\$1,000).

3. REGULAR SEASON GAME BONUSES

In any contract year in which the Football Team wins eight (8) or more regular season games, Coach and each assistant coach shall receive a bonus for the number of wins in the amounts listed below:

Number of Wins	Head Coach	Assistant Coaches
8	\$1,000	\$500
9	\$2,000	\$750
10+	\$3,000	\$1,000
Perfect Season	\$5,000	\$1,500

Any regular season game bonuses earned under this paragraph shall be deemed earned at the conclusion of the game that triggers the appropriate bonus. These bonuses are based on the Football Team’s overall finish for the season and are non-cumulative.

4. DIVISION II PLAYOFF BONUS

In any contract year in which the Football Team participates in the NCAA Division II Football Championship playoff, and for each game won, up to but not including the National Championship Game:

- (a) Coach shall receive a bonus of Two Thousand Five Hundred Dollars (\$2,500); and
- (b) Each assistant coach shall receive a bonus of Seven Hundred Fifty Dollars (\$750).

5. DIVISION II CHAMPIONSHIP BONUS

In any contract year in which the Football Team wins the NCAA Division II Football Championship:

- (a) Coach shall receive a bonus in the amount of Fifteen Thousand Dollars (\$15,000); and

- (b) Each assistant coach shall receive a bonus in the amount of Two Thousand Dollars (\$2,000).

6. COACHING HONOR BONUS

In any contract year in which Coach is named SIAC “Coach of the Year” by the SIAC Conference, Coach shall receive a bonus in the amount of Three Thousand Dollars (\$3,000).

B. All performance-based incentives are contingent upon Coach’s actual participation in, and coaching of, the Football Team for the particular event subject to a bonus.

C. KSU shall pay Coach all athletic or academics-related bonuses earned under this Agreement, if any, within ninety (90) days of the end of the spring semester, once all grades and the ASR report has been received by the NCAA.

D. KSU shall pay all other bonuses to Coach within ninety (90) days of the conclusion of the Football Team’s season.

E. All such bonus payments shall be subject to regular payroll withholdings and shall be made through KSU’s regular payroll process.

F. In the event that any future or amended state or federal law, rule, or regulation, or any NCAA or SIAC rule or regulation, should (1) prohibit the payment of any listed bonus, (2) render any such bonus illegal or ineffectual, or (3) subject KSU to a penalty or assessment or violation of law if such bonus were to be paid, KSU will, to the extent possible, revise such bonus or substitute an alternative incentive payment that would allow for a similar economic benefit to be provided to Coach while preserving for KSU as much of the bargained-for institutional benefit as reasonably possible.

G. All bonuses shall vest upon being earned or achieved (even if payable at a later date). In the event of termination of Coach’s employment (except for termination with cause), all such vested amounts shall be promptly paid after such termination.

XI. INCLUSION OF PERSONNEL

Coach may, at his discretion, employ the following personnel:

- 1. Assistant Coaches (6), pursuant to the approved budget; and
- 2. Head Football Team Equipment Manager, pursuant to the approved budget.

XII. TERMINATION

A. Termination for Cause. If Coach fails to fulfill his obligations under this Agreement properly and on time, or otherwise violates any provision of this Agreement, the Athletic Director may revoke this Agreement by written notice to Coach. The notice shall specify the acts or omissions relied upon as cause for termination. Termination for cause ends all employment and compensation obligations under the Agreement. During his term of employment, Coach shall keep KSU apprised of information regarding his current home address.

1. Upon termination of Coach's employment with KSU for cause, KSU shall be under no further obligation to Coach except to pay all accrued but unpaid base salary and accrued vacation leave up to the date of termination. Upon notice of termination for cause, Coach shall vacate his KSU-provided office within five (5) calendar days of the notice, and he shall return all KSU-owned property forthwith. After notice of termination, Coach shall cooperate with KSU, as reasonably requested by KSU, to effect a transition of his responsibilities and to ensure that KSU is aware of all matters being handled by him.

2. Incidents warranting "termination for cause" shall include, but not be limited to, the following grounds:

- (a) A Level 1 violation of NCAA or SIAC legislation committed by Coach, or Coach's failure to report a known violation of NCAA or SIAC legislation;
- (b) Engaging in conduct that is unlawful or which results in Coach's conviction of a crime;
- (c) Committing material or repeated violations of any provision of this Agreement or any University Policy;
- (d) Failure by Coach to promptly report to the Athletic Director any known violations of governing athletic rules or University Policies by assistant coaches, staff, student-athletes, or other persons under the direct control or supervision of Coach;
- (e) Fraud or dishonesty of Coach in the performance of his duties or responsibilities under this Agreement;
- (f) Fraud or dishonesty of Coach in the preparation, falsification, submission, or alteration of documents or records of KSU, the NCAA, or the SIAC; documents or records required to be prepared or maintained by law, governing athletic rules, or University Policies; other documents or records pertaining to any recruit or student-athlete, including, without limitation, expense reports, transcripts, eligibility forms, or compliance reports; or permitting, encouraging, or condoning such fraudulent or dishonest acts by any other person, provided that Coach had actual knowledge of such fraudulent or dishonest acts, or should reasonably have known about such fraudulent or dishonest acts;
- (g) Failure by Coach to respond accurately and fully, within a reasonable time, to any reasonable request or inquiry relating to the performance of his duties hereunder or the performance of his duties during his previous employment at any other institution of higher learning that is made by KSU, the NCAA, the SIAC, or any other governing body having supervision over KSU's athletic programs, or any such request or inquiry that is required by law, governing athletic rules, or University Policies;

- (h) Counseling or instructing any employee, administrator, student, or other person to fail to respond accurately and fully, within a reasonable time, to any reasonable request or inquiry concerning a matter relevant to KSU's athletic programs that shall be propounded to KSU, the NCAA, the SIAC, or any other governing body having supervision over the athletic programs of KSU, or any request or inquiry that is required by law, governing athletic rules, or University Policies;
- (i) Solicitation, placement, or acceptance of a wager on any intercollegiate or professional athletic contest, or permission, allowance, or encouragement by Coach of any illegal gambling, bookmaking, or illegal betting involving any intercollegiate or professional athletic contest; or furnishing by Coach of information or data relating in any way to any KSU sports to any individual known by Coach to be, or whom he should reasonably know to be, a gambler, bettor, or bookmaker, or an agent of any such person; or any act of consorting or associating by with such persons by Coach;
- (j) Use or consumption by Coach of alcoholic beverages, drugs, controlled substances, steroids, or other chemicals in such a degree and for such appreciable period as to impair significantly or materially his ability to perform his duties hereunder; or failure by Coach to fully cooperate in the enforcement and implementation of any drug-testing program established by KSU for student-athletes;
- (k) Coach's sale, use, or possession of any drugs, controlled substances, steroids, or other chemicals he is prohibited by law or governing athletic rules from selling, using, or possessing; or Coach's acceptance or encouragement of the sale, use, or possession of any drugs by a student-athlete that he or she is prohibited from selling, using, or possessing by law or governing athletic rules;
- (l) Failure by Coach to obtain prior approval for outside activities as required by this Agreement or by NCAA rules, or failure by Coach to accurately report all sources and amounts of income and benefits as required by NCAA rules and this Agreement; and
- (m) Committing material or repeated violations of any provision of this Agreement or any University Policy.

B. Termination without cause. KSU may terminate Coach's employment hereunder at any time without cause, provided, however that Coach shall be entitled to all outstanding compensation owed for the term of this Agreement, including all employment-related benefits. All compensation must be paid in full within three (3) months of the termination date.

Upon notice of termination without cause, Coach shall vacate his KSU-provided office within no more than five (5) calendar days of the notice and shall return all KSU-owned property on or before his last working day. After notice of termination, Coach shall cooperate with KSU, as reasonably requested by KSU, to effect a transition of Coach's responsibilities and to ensure that KSU is aware of all matters being handled by Coach.

XIII. RESIGNATION

A. Upon resignation of employment, Coach shall be entitled to a six-month payout at his current rate of pay as long as he agrees to not accept other employment in athletics within six (6) months from the date of his resignation.

B. If Coach accepts another athletic position within the six (6) months following his resignation from KSU, he agrees that he shall forfeit his right to the full six-month payout and shall refund that portion of the payout to KSU on a pro rata basis.

C. KSU must pay all compensation within six (6) months after resignation.

D. Upon resignation of employment, Coach shall vacate his KSU-provided office within no more than five (5) calendar days of the effective date of the resignation and shall return all KSU-owned property on or before his last working day. After notice of resignation, Coach shall cooperate with KSU, as reasonably requested by KSU, to effect a transition of Coach's responsibilities and to ensure that KSU is aware of all matters being handled by Coach.

XIV. DISABILITY

A. KSU may revoke this Agreement, without liability, if Coach shall be permanently prevented from properly performing his essential duties hereunder with reasonable accommodation by reason of illness or other physical or mental incapacity for a period of more than sixty (60) consecutive days.

B. Upon such revocation, Coach shall be entitled to all accrued but unpaid base salary and vacation leave. Upon notice of such revocation, Coach shall vacate his KSU-provided office within ten (10) calendar days of the notice and shall return all KSU-owned property forthwith. To the extent possible, Coach shall cooperate with KSU, as reasonably requested by KSU, to effect a transition of Coach's responsibilities and to ensure that KSU is aware of all matters being handled by Coach.

XV. DEATH

A. In the event of the death of Coach during the employment period, KSU's obligations hereunder shall automatically cease and terminate, provided, however, that KSU shall, within fifteen (15) days, pay to Coach's estate or personal representatives his accrued but unpaid base salary and vacation leave.

B. Coach's estate shall make arrangements with KSU to remove any personal belongings of Coach from KSU property as soon as practicable.

XVI. RELOCATION EXPENSES

Employee shall be reimbursed, up to Five Thousand Dollars (\$5,000) for receipted expenses for relocation expenses to Kentucky, which shall be paid out via the regularly scheduled payroll cycle.

XVII. TEMPORARY HOUSING

Employee shall have access to temporary KSU housing not to exceed thirty (30) days from the first day of employment.

XVIII. KSU RECORDS

All materials or articles of information, including, without limitation, personnel records, recruiting records, team information, films, statistics, or any other material or data furnished to Coach by KSU, or developed by Coach on behalf of KSU or at KSU's discretion, or for KSU's use or otherwise in connection with Coach's employment hereunder, are and shall remain the sole property of KSU. If KSU requests the return of such materials at any time during, at, or after the termination of Coach's employment, Coach shall immediately deliver same to KSU.

XIX. EQUAL PARTICIPANTS

The Parties hereto shall be viewed as equal participants, and each party agrees that there shall be no presumption against the drafting party.

XX. NOTICE

Any notice provided for herein shall be in writing and shall be deemed to have been given, delivered, or served when delivered personally to the party who is to receive such notice or when mailed by U.S. registered, certified, or first-class mail to such party. Unless hereinafter changed by written notice to Coach, any notice to the Board of Regents shall be addressed to Dr. Gerald W. Patton, Chair of the Board of Regents.

XXI. MISCELLANEOUS PROVISIONS

A. This Agreement constitutes the sole and only agreement of the Parties and supersedes any prior understandings or oral or written agreement between the Parties with respect to the subject matters contained herein. The Parties understand and agree that this Agreement shall be construed under and in accordance with the laws of the Commonwealth of Kentucky and that, as aforementioned, the Agreement may not be modified unless in writing, signed by the Parties; and

B. The Parties further agree that any waiver of any part of this Agreement shall not be a waiver of a breach of this Agreement, in whole or in part, or constitute a waiver of any other succeeding breach. In case any one or more of the provisions in this Agreement shall be held to be invalid, illegal, or unenforceable for any reason, the invalidity, illegality, or unenforceability of any such provisions shall not affect any other provisions hereof, and this Agreement shall be construed as if the invalid, illegal, or unenforceable provisions had never been contained in the Agreement.

IN WITNESS THEREOF, the Parties to the Agreement have hereunder affixed their signatures.

KENTUCKY STATE UNIVERSITY (KSU):

Dr. Ronald A. Johnson, Interim President

Date

COACH:

Felton Huggins

Date