5th Annual WVU Tech Status Report for the Legislative Oversight Commission on Education Accountability

Submitted to LOCEA October 29, 2010 by Scott M. Hurst, Ph.D. Campus Provost

Executive Summary

This report to LOCEA reviews progress during 2009-2010 by West Virginia University Institute of Technology (WVU Tech) and West Virginia University–Main Campus (WVU-Main Campus) in the integration of institutional functions and the strengthening of relationships between the two institutions.

Integration of ten of the fifteen targeted institutional functions (dining services, financial aid, legal affairs, human resources, physical plant, social justice, sponsored programs, Banner and related systems, financial affairs, and information technology) approached virtual completion during 2009-2010. As a result of the highly detail-oriented and time-consuming efforts of years one through four, the majority of the integration process for these ten institutional functions had been completed prior to the past year. Thus, efforts of 2009-2010 were focused primarily on maintaining, refining, and enhancing prior accomplishments.

Integration of five of the fifteen targeted institutional functions (*communications / integrated marketing*, *extended learning*, *institutional research*, *public safety*, *and library services*) has been accomplished to lesser degrees. It was ascertained during 2009-2010 that, because these five functions are directly concerned with people and/or academic programs specific to WVU Tech, the original goal of 100% integration may not be attainable. Discussions between representatives of the two campuses are currently in process to determine if optimal integration has been achieved and/or where there may be other opportunities to partner.

In addition to their efforts toward the original integration mandate, WVU Tech and WVU-Main Campus cultivated stronger relationships between their respective administrative groups and assessment units during 2009-2010. There were regular and frequent collaborations between administrators to assure full compliance with acts of legislation and governance and to continuously refine operating standards and goals. There were also numerous interactions to create complementary assessment initiatives on the respective campuses.

Overall, the relationship between WVU Tech and WVU-Main Campus worked smoothly during 2009-2010. WVU Tech has a solid operating foundation upon which to build but not the responsibility and cost required to maintain a separate and parallel staff. In addition, beneficial and unanticipated opportunities to collaborate – those outside the expectations of the original agreement - have also arisen.

WVU Tech was also able to take significant strides on its own toward the four major priorities of: 1) assembling a full complement of institutional leaders and managers; 2) launching a strategic plan for 2011-2015; 3) improving appreciably Tech's facilities and grounds; and 4) obtaining outside funding to support academic research and student life programs. These and other accomplishments of the past year are highlighted in Appendix A: *Report to the Community 2009-2010*.

For the first time in close to decade now, WVU Tech is equipped to focus exclusively on the future. Tech operates on a more cost-effective foundation. It is led by a team that is skilled in identifying, recruiting, and retaining students who will both benefit from and succeed in its academic programs. With its vision an ambitious but definitely attainable target of full-time equivalent enrollments equal to that of its peak year, and progress toward that vision well underway, and with its historically high quality academic programs very strong and highly complementary to needs of the State of West Virginia, WVU Tech is poised to become a fiscally strong institution .

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Progress on Integration of Institutional Functions during 2009-2010

As noted in last year's LOCEA report, WVU Tech and WVU-Main Campus had accomplished 100% integration of seven of the fifteen institutional functions that had been identified by members of the integration team as candidates for integration. These included dining services, financial aid, legal affairs, human resources, physical plant, social justice, and sponsored programs. Three more functions, Banner and related systems, financial affairs, and information technology, were reported as 90-99% integrated. Because all ten of these functions are concerned with day-to-day operations their full integration over the past four years was straightforward, although detail-oriented and very time-consuming, and efforts of the past year focused primarily on maintaining, refining, or enhancing them.

Four institutional functions were reported last year as 75-89% integrated: communications / integrated marketing; extended learning; institutional research; and public safety. While 100% integration of these institutional functions was initially sought, over the past year it became clear that, because they are concerned with people and academic programs specific to WVU Tech, the originally targeted 100% integration of these four functions may not be attainable. Discussions are currently in process to determine if optimal integration has been achieved and/or where continued efforts are warranted.

The 15th institutional function, library services, was reported last year as 25% integrated, with the major obstacle being the inability to achieve the acceptable terms with publishers and other resource providers that would accomplish the proposed sharing of electronic journals and thus the desired economies of scale. Discussions are currently in process about this obstacle and about whether or not optimal integration has been achieved and/or where other opportunities to partner remain.

Additional Linkages with WVU-Main Campus

In addition to the targeted integrations discussed above, relationships between the two institutions were strengthened appreciably last year in two additional capacities: administrative linkages and assessment.

Administration – Leaders of the two institutions interacted on numerous occasions throughout the year.

From WVU Tech leadership, the campus provost attended several meetings of the WVU Board of Governors (BOG) and met frequently with officers in the WVU provost's office by way of conference telephone calls and face-to-face meetings. Also, leaders of several of Tech's operating units, such as the chief business officer, registrar, director of financial aid, director of facilities and maintenance, and director of human resources, interacted frequently with their WVU-main campus counterparts by way of conference telephone calls and face-to-face meetings.

From WVU leadership, with the president and the provost having assumed their positions within the past year, and with Tech new to both of them, both made personal visits to the Tech campus during the year. The WVU provost was also accompanied by the senior associate provost. The WVU president also met in a special forum with Tech faculty during the April 2010 meeting of the WV Higher Education Policy Commission in Montgomery. Continuing an annual tradition, the WVU associate provost for academic personnel visited with Tech faculty members in fall 2009 and fall 2010, and hopefully beginning another annual tradition the WVU BOG also met on the Tech campus in June 2009.

These interactions are steps that can help facilitate parity for WVU Tech, as exemplified by the WVU president's September 2010 announcement that the just approved 1.75 per cent, one-time, non-recurring salary improvement plan will be applied equally to Tech.

Assessment – Although WVU Tech's academic programs are accredited separately from those of WVU-Main Campus and thus Tech is responsible for assessment of its own programs and related student services, there are nevertheless strong positive working relationships between the two institutions when it comes to assessment. While attending the Higher Learning Commission's winter 2010 workshop on assessment, representatives from both institutions collaborated extensively on creating complementary assessment efforts on the respective campuses. As a direct result of this workshop, Tech's assessment committee regularly participates with the University Assessment Council (UAC) at WVU – Main Campus, including the four UAC task forces (whose work has now concluded). In addition, Tech adopted the UAC program of assessment of the General Education Curriculum (GEC) and participated in the online UAC survey, "Academic Assessment Activities at the Undergraduate Program Level." Tech's assessment committee will be asked in fall 2010 for analysis on how best to utilize the results and findings generated by these relationships.

Four Noteworthy Steps during 2009-2010 Toward Fiscal Self-Sufficiency for WVU Tech

With 2009-2010 being the first full year that integration of the targeted institutional functions was virtually complete (exceptions noted above), and also the first full year of operations following the complete divestment of its formerly third academic unit (the community and technical college), WVU Tech was for the

first time in several years able to focus exclusively on its future. Because it is in the best interests of both Tech and WVU-Main Campus that Tech become financially sound - and as soon as possible - Tech worked actively toward this end during 2009-2010. Noteworthy steps in four key areas that have the potential to facilitate fiscal self-sufficiency were taken: 1) fully staffing university leadership and management, 2) strategic planning, 3) facilities improvements, and 4) funded research and programs.

<u>Leadership and management</u> – The WVU Tech leadership team was fully staffed during 2009-2010 when six open positions were filled - four through national searches (dean of students, director of facilities planning and management, athletic director, and director of admissions and recruiting), one through an internal search (associate campus provost), and one through conversion of a WVU fixed-term assignment to a permanent WVU Tech position (special assistant to the campus provost). In addition, three key management positions were filled – two through national searches (registrar and director of financial aid) and one through an internal search (coordinator of strategic planning). In the case of all of these positions, the chosen candidates were exceptionally qualified and are also exceptionally committed to helping Tech realize its fullest potential.

<u>Strategic planning</u> – Strategic planning at WVU Tech was launched during a three-day retreat in December 2009 and January 2010 and included members of the university's Cabinet (Tech's executive officers, the faculty assembly chair, the classified staff council chair, and student government association president).

Retreat participants carried out a SWOT analysis (strengths, weaknesses, opportunities, and threats) and also identified the following seven initiatives expected to have the greatest impact on the overall future success of the university:

- Recruitment and retention
- Enhancing relations and communications
- Creating an improved student experience
- Enhancing academic programs
- Enhancing financial resources and creating a sustainable business model
- Campus facilities and beautification
- Our people and culture

Three master documents were subsequently produced to guide the strategic planning process: *Vision for WVU Tech – 2015, Core Values of WVU Tech*, and *Strategic Initiatives at WVU Tech 2011-2015*. After these documents were shared with the entire Tech community in public meetings during spring 2010, more than 100 volunteers stepped forward to join work groups. These groups then developed five-year SMART goals (Specific, Measurable, Attainable, Realistic, and Timely) and milestones and timetables by which annual progress toward goals could be measured.

Following an internal search, a coordinator of the strategic planning process was employed in April 2010. The coordinator has compiled all of the details to produce the full five-year strategic plan (See Appendix B), published the plan to more broadly engage the public in the plan, and posted it on social networking sites, such as Facebook. Work toward year-one strategic goals was begun in June 2010, and progress toward them is being monitored and documented by the coordinator. In the event that circumstances would change appreciably, the identified goals, milestones, and timetables would, of course, be subject to change.

<u>Facilities improvement</u> – An attractive and properly functioning physical plant is critical to WVU Tech's ability to recruit and retain the caliber of students who are capable of succeeding academically. During the past year a number of significant upgrades were made to Tech's physical plant, including:

- Business & Economics Building Installation of HVAC building automation system
- Business & Economics Building Installation of roof
- Tech Center Installation of motor control center/electric service
- Engineering Classroom Building Renovation of HVAC system
- Vining Library Upgrade of building automation system and condensing Units
- Old Main Upgrades to offices of the registrar, director of admissions and recruiting, and director of WVU Tech relations and communications, and creation of a computer laboratory for the Student Support Services and Tutoring unit

Numerous new projects are on the horizon as discussed in the strategic plan (See Appendix B). Priority projects are identified based upon their ability to facilitate the recruitment of new students and retention of current students, as well as their potential to enhance the academic success of incoming and current students. Improvement to WVU Tech's recreational and wellness environment directly impacts both its overall student population and the number of students living on campus (as compared to those commuting) and is very important because the student who lives on campus has a higher potential for success than does the student who commutes. All projects also take into consideration benefits that might accrue to Montgomery and the Upper Kanawha Valley as well as their potential to acquire external private financial support.

<u>Funded research and programs</u> – External funding is vital to the success of academic initiatives, career development of students, and the health and well-being of the campus community. Members of the WVU Tech faculty and administration secured significant external funding during 2009-2010 for past, present, and future projects.

\$200,000 in external funding secured throughout 2009-2010 – Supports such diverse efforts as:

- approximately 200 student-researchers of:
 - o bioremediation of mercury-contaminated coal waste and selenium-contaminated wastewater from coal mining
 - o web applications of a residential energy audit tool
 - o high-altitude research of the effectiveness of amateur radio tracking across mountainous terrain
 - 3-D and 2-D face-recognition technology
 - o user-interface concepts for next-generation CAD
 - o terrain mapping, image target investigation, pathway image recognition and map placement, intelligent vehicle navigation, real-time processing, and telepresence control of autonomous vehicles
- employment of summer interns
- H1N1 flu outreach efforts, including distribution of more than 800 packages of infection-prevention supplies, vaccination of more than 500 people at no charge, and several educational programs
- integration of information literacy into a nursing course
- the AEPower Hot Topic Debates, through which students will analyze and discuss such important national and international issues as global warming, renewable energy, national health care, social responsibility, mountaintop mining, immigration

\$2.4-million in external funding secured in September 2010 – Will support Direct Carbon Fuel Cell (DCFC) research

With support from Congresswoman Shelley Moore Capito, WVU Tech received \$2.4-million in September 2010 to fund Direct Carbon Fuel Cell (DCFC) research for the United States Department of Defense (DoD). This multimillion dollar, multi-year project will be a collaborative effort with the Army Research Laboratory (ARL) and American Science and Technology (AST). The research will focus on developing the required technologies to replace hydrogen with carbon extracted from domestic coal for fuel cell operation and electric power generation.

The technologies will be used for different military applications such as unmanned ground vehicles (UGVs) and unmanned aerial vehicles (UAVs). During recent years, these types of vehicles have played a critical role in military efforts in Afghanistan, Iraq, and other regions.

Presently, most robotic systems are powered by petroleum-derived fuel engines or batteries, and this project aims to develop more efficient power sources and systems for robotic vehicles. By replacing conventional power supply systems with DCFC technology packages designed specifically for mobile robotics systems, the potential for enhanced mission capabilities, energy efficiency by using domestic coal, maintenance efficiency, and, ultimately, cost savings for the federal government could be met.

Conclusion

Overall, the relationship between WVU Tech and WVU-Main Campus worked smoothly during 2009-2010. Most efforts were exerted to maintain, refine, and enhance integration of ten of the fifteen targeted institutional functions and to enhance relationships within the administration and assessment units of the respective institutions. Because they are concerned with people and/or academic programs specific to the Tech campus, the five other targeted institutional functions were able to be integrated to lesser degrees and discussions between representatives of the two campuses are currently in process to determine if optimal integration has been achieved and/or where there may be other opportunities to partner. The resulting outcomes are meaningful, as today Tech operates on a solid foundation without having to hire and maintain its own separate and parallel staff. In addition, unanticipated opportunities to collaborate – those outside the expectations of the original agreement - have also arisen. Equally meaningful to Tech were the significant strides it took independently to assemble a full complement of institutional leaders and managers, to launch a strategic plan for 2011-2015, to appreciably improve its facilities and grounds, and to obtain outside funding to support academic research and student life programs.

For the first time in close to decade now, WVU Tech is equipped to focus exclusively on the future. In addition to its more cost-effective operating foundation, Tech is now led by a dedicated team that is skilled in identifying, recruiting, and retaining students who will both benefit from and succeed in its academic programs. With its vision an ambitious but definitely attainable target of full-time equivalent enrollments equal to that of its peak year, and progress toward that vision well underway, and with its historically high quality academic programs very strong and highly complementary to needs of the State of West Virginia, WVU Tech is poised to become a fiscally strong institution .

Appendix A: Report to the Community 2009-2010

REPORT TO THE COMMUNITY 2009-2010



www.wvutech.edu

GREETINGS FROM THE CAMPUS PROVOST

To all our friends and supporters,

In reflecting on Tech's achievements during 2009-10, I continue to be amazed by the skills and talents of our students, faculty, and staff.

This report is a compilation of the outstanding accomplishments of our students, faculty, and staff – these are the individuals that make WVU Tech unique and set us apart from all of the other colleges and universities around the nation.

This report consists of five sections:

- **OUR STUDENTS**.....p.2
- MAJOR INITIATIVES OF THE YEAR.....p.5
- FUNDED RESEARCH AND PROGRAMS.....p.9
- PERSONNEL IN THE NEWS.....p.12
- **EVENTS AND SERVICE**.....p.17

I'm pleased to inform you that last year Tech employed 236 full-time employees (109 members of the faculty, 119 staff, 12 administrators, and 13 athletic staff) and 43 part-time employees (40 members of the faculty and 3 athletic staff). The approximate economic impact of these employees - - \$9,600,000 - - most of which would have been spent locally.

On behalf of all of us here at Tech, I thank you for your continued dedication and support you have shown to WVU Tech over the years. Please know, too, that I welcome any and all comments and suggestions. You may contact me by email c/o Tech-AcademicAdmin@mail.wvu.edu. With warm regards,

Scott M. Hurst, Ph.D.

from your

Campus Provost

September 2010

OUR STUDENTS 2009-2010

The following is a snapshot of our students and student life last year. Our full institutional profiles are posted online:

- Data Portal of the WV Higher Education Policy Commission c/o www.wvhepcnew.wvnet.edu
- College Navigator of the Integrated Postsecondary Education Data System c/o http://nces.ed.gov/ipeds/

Total Number of Students	1,244
Total number of students from West Virginia	1,066
Total number of non-West Virginia students	178
Ratio of WV to non-WV students	6:1
Total number of male students	772
Total number of female students	472
Ratio of male to female students	3:2
Total Number of First-Time, Full-Time Freshman Students	291
Total number of freshman students from West Virginia -	226
Total number of non-West Virginia freshman students -	65
ACT profile of entering freshman students -	20.4
SAT profile of entering freshman students -	871

Top Nine WV Counties Served

Kanawha	397	Putnam	34
Fayette	203	Logan	23
Nicholas	51	Jackson	21
Raleigh	38	Clay	20
Boone	36		

Approximate Tuition, Fees, Room, & Board for Full-Time Students Living on Campus

Students from West Virginia \$15,844

Non-West Virginia students \$23,944

(These figures are averages. Actual expenses varied based upon academic major, residence hall accommodations, meal plan, and personal spending.)

PROMISE Scholarship Recipients

170 WVU Tech students received the merit-based PROMISE scholarship during 2009-2010.

Athletics

Athletic programs are a significant part of student life at WVU Tech. Last year, 234 students, almost one-fifth of the total student population, participated on one of Tech's 12 NAIA Division I athletic teams.

Football (me	n)	72	Soccer (women)	17
Soccer (me	n)	20	Volleyball (women)	10
Cross Countr	y (men)	10	Cross Country (women)	5
Basketball	(men)	14	Basketball (women)	14
Wrestling	(men)	8	Softball (women)	22
Baseball	(men)	26	Golf (men)	8

Student Organizations

WVU Tech has 31 registered student organizations. Satisfying diverse interests, they focus on the professions, Greek life, faith, athletics, government, and health care, among others. Active membership affords opportunity for Tech students to expand their circles of friendship, develop professional networks, pursue personal interests and hobbies, and cultivate talents as leaders and project managers.

Number of Academic Degrees Granted - by College and Major

Leonard C. I	Nelson College of Engineering & Sciences	
	B.S. in Computer Science	9
	B.S. in Chemical Engineering	2
	B.S. in Civil Engineering	17
	B.S. in Computer Engineering	5
	B.S. in Electrical Engineering	8
	B.S. in Mechanical Engineering	16
	B.S. in Electronic Engineering Technology	9
	B.S. in Engineering Technology/Civil Emphasis	9
	B.S. in Engineering Technology/Mechanical Emphasis	9
	B.S. in Industrial Technology	2
	B.S. in Biology	5
	B.S. in Chemistry	3
	B.S. in Mathematics	2
	Total # LCN Degrees	96
College of B	usiness, Humanities & Social Sciences	
	B.S. in Management Information Systems	3
	B.A. in History and Government	4
	B.A. in Psychology	5
	Regents' Bachelor of Arts	18
	B.S. in Career / Technical Education	3
	B.S. in Accounting	9
	B.S. in Business Management	11
	B.S. in Criminal Justice	1
	B.S. in Health Services Administration	7
	B.S. in Printing Management	1
	B.S. in Public Service Administration	2
	Total # BHS Degrees	64

32
11
43
203
28
26
16
70

MAJOR INITIATIVES OF THE YEAR

Strategic Planning 2011-2015

(34.5% of all graduates)

Strategic planning at WVU Tech was launched during a three-day retreat, in December 2009 and January 2010, of members of the university's Cabinet (Tech's executive officers, the Faculty Assembly Chair, the Classified Staff Council Chair, and Student Government Association President).

Retreat participants carried out a SWOT analysis (strengths, weaknesses, opportunities, and threats) and also identified the following seven initiatives expected to have the greatest impact on the overall future success of the university:

- Recruitment and Retention
- Enhancing Relations and Communications
- Creating an Improved Student Experience
- Enhancing Academic Programs
- Enhancing Financial Resources & Creating a Sustainable Business Model
- Campus Facilities and Beautification
- Our People and Culture

Three master documents were produced to guide the strategic planning process: *Vision for WVU Tech – 2015, Core Values of WVU Tech*, and *Strategic Initiatives at WVU Tech 2011-2015*. After these documents were shared with the entire Tech community in public meetings during spring 2010, more than 100 volunteers stepped forward to join work groups. These groups then developed five-year SMART goals (Specific, Measurable, Attainable, Realistic, and Timely) and milestones and timetables by which annual progress toward goals could be measured.

Dr. Guy A. Vitaglione, was appointed Coordinator of Strategic Planning in April 2010. Dr. Vitaglione compiled all of the details to produce the full five-year strategic plan. To more broadly engage the public in the plan, in June 2010 he also published the plan on the university website, Facebook, and even a new blog. Interested parties can follow any of these electronic sites to stay informed about Tech's strategic planning progress.

Work toward year-one strategic goals was begun in June, and progress toward them is being monitored and documented by Dr. Vitaglione. In the event that circumstances would change appreciably, the identified goals, milestones, and timetables will be subject to adaptation and revision.

Recruitment Planning 2011

The basic framework of the WVU Tech 2011 recruitment plan was developed during spring 2010 by members of the admissions staff and Cabinet, in collaboration with **Dick Eastop**, senior consultant with Noel-Levitz. Essentially, recruitment planning is a disciplined and organized process, grounded in the old adage, "Plan the work, and work the plan." Focusing on Tech's immediate needs, the recruitment plan calls upon Tech to:

- Better identify the characteristics of students, new to Tech, who are most likely to successfully complete Tech's academic programs
- Set specific targets, strategies, and milestones for recruiting and enrolling ideal prospective students throughout the year
- Improve the ways and means by which Tech's strengths are presented to ideal prospective students
- Analyze with an eye to overcoming the possible obstacles that ideal prospective students might face in their decision-making process

- Develop clear guidelines for the process by which staff will contact ideal prospective students
- Use existing resources effectively and accountably and, if appropriate, identify additional needed resources

To accomplish these ends WVU Tech is improving its communications flow with ideal prospective students and those with whom they are associated, its assessment of recruiting efforts, its analysis of the ability of academic programs to serve students, the assistance that personnel in all of the units affiliated with admission to Tech provide to prospective students, and its usage of available resources.

Reeta Piirala-Skoglund, the Director of Admissions and Recruitment, has full responsibility for oversight of the recruitment plan.

Assessment

Garth Thomas, Associate Campus Provost, and **Dr. Pamela S.Cutright**, Special Assistant to the Campus Provost, updated the WVU Tech program of assessment in February and March 2010. Grounded in the philosophy and practices embraced by Tech's accreditation agency, the Higher Learning Commission, the new model is structured so that it will survive changing times and changing personnel and will be inclusive of the total student experience, pervasive, integral to strategic planning, and meaningfully practical.

The Associate Campus Provost is responsible for oversight of assessment, and the assessment committee handles day-to-day management. To assure representation of the total campus, the committee is made up of one representative from the administration, one from each of the three major academic units (the Leonard C. Nelson College of Engineering & Sciences, the College of Business, Humanities, & Social Sciences, and the Department of Nursing), and one representative each from the three service units of Admissions, Athletics, and Student Life.

To assure that Tech's assessment committee possesses the highly desirable properties of both continuity and "a fresh eye," term limits are to be established. Guidelines for the professional development of committee members remain to be finalized; however, they are expected to participate in workshops, seminars, webinars, etc. and then share knowledge and competencies

across campus, by way of electronic letters, workshops, Faculty Assembly, Classified Staff Council, departmental meetings, etc.

Tech's assessment committee also collaborates with the University Assessment Council (UAC) at WVU – Main Campus, which is a highly valuable resource on assessment methods and techniques. Tech is represented on each of the four UAC task forces, has adopted the UAC program of assessment of the General Education Curriculum (GEC), and has asked Tech's academic departments and programs participate in the online UAC survey, "Academic Assessment Activities at the Undergraduate Program Level."

Innovative Academic Programs:

Online Accounting Certificate Program in Fraud Examination

Under the leadership of **Madhuri Sarin**, Chair and Associate Professor of Accounting, the Department of Accounting and Finance has developed an online undergraduate certificate program in Fraud Examination that was introduced in fall 2010. This program, which may be taken as part of, or independent of, a degree program will prepare entry-level public accountants, governmental accountants, law enforcement officers, and other business and finance professionals for positions in fraud analysis, fraud investigation, and compliance in business, government, and not-for-profit organizations. The six courses that make up the certificate program include:

- Fraud Examination (ACCT 420)
- Fraud Management: Legal & Ethical Issues (ACCT 421)
- Advanced Fraud/Forensic Investigations (ACCT 422)
- Information Security and Controls (ACCT 423)
- Financial Statement Analysis (ACCT 348)
- Case Studies in Fraud Examination (ACCT 449)

In addition, there is one pre-requisite course, Principles of Accounting (ACCT 201).

With courses offered at the rate of two per term, it is possible for students to complete the full certificate within one year. On completion, the Certificate in Fraud Examination will be awarded.

One of Tech's cutting-edge academic units, the Department of Accounting and Finance was also the first among West Virginia's colleges to offer (in 2005) a four-year degree in fraud management.

Transfer Agreement:

Spearheaded by **Dr. Stephen W. Brown**, Dean of the College of Business, Humanities, & Social Sciences, and **Madhuri Sarin**, Chair and Associate Professor of Accounting, a new transfer agreement between WVU Tech and Southern West Virginia Community & Technical College (SWVCC) was approved by academic leaders of the two colleges in spring 2010.

According to this agreement, SWVCC students who have successfully completed the first two years of required accounting work may go on to earn Tech's B.S degree . in Accounting by taking the required upper-division courses (300-400 level) online. Transferring SWVCC students will also enjoy the benefit of a streamlined admissions process. Admitted students were eligible to begin their baccalaureate studies at Tech in the fall 2010 semester.

FUNDED RESEARCH AND PROGRAMS

*Every attempt has been made to create a complete and accurate list of accomplishments. Should there be an error or omission, please contact us at Tech-Academic-Admin@mail.wvu.edu.

Under the leadership of **Richard G. Carpinelli**, Dean of Students, WVU Tech received a \$25,000 grant (from the WV Higher Education Policy Commission, the WV Community & Technical College System, and the WV Bureau for Public Health) to support H1N1 flu outreach efforts. More than 800 flu goody bags, filled with sanitizers, disposable thermometers, packets of tissues and ibuprofen, and information on preventing, diagnosing, and treating H1N1, were distributed to Tech's students, faculty, and staff last winter.

Also, according to **Peggy Lambert Fink**, Assistant Professor of Nursing and Director of the WVU Tech Student Health Clinic, this grant enabled the vaccination at no charge of almost 500 people, installation of hand sanitizer dispensers across campus; multi-venue publication of H1N1 information, delivery of meals to infected students in their residence halls (in collaboration with dining services), and formation of a partnership with Montgomery General Hospital to serve the children of the area.

Through the efforts of **Dr. James A. Cercone**, Professor and Chair of the Department of Computer Science, WVU Tech received a \$20,000 grant (from the NASA WV Space Grant Consortium) to support the High Altitude Research Project (HARP) near-space experiment. A

team of 14 Tech students, mainly computer science and computer engineering majors, launched a high-altitude balloon at Barboursville Middle School in December 2009 to ascertain the effectiveness of amateur radio tracking across WV's mountainous terrain. The balloon was subsequently brought down near Fairmont.

As Dr. Cercone observed, "Thanks to this NASA WV Space Grant, we have given our students meaningful research opportunities and we will be able to continue doing so well into the future."

Dr. Asad Davari, Professor of Electrical and Computer Engineering, is the principal leader of the recently organized **Center of Excellence in Energy for Research and Education**. With the goal of becoming a major resource on renewable energy, energy policy and security, and technological assistance, this center will be the home of R&D projects focusing on a hybrid distribution power system, obtaining hydrogen from coal, and the Direct Carbon Fuel Cell. The center will also enable Tech to help define WV's role in the nation's energy effort as well as to educate and prepare the next generation of the energy workforce.

Barbara D. Douglas, Professor of Nursing, was awarded a \$3,000 Information Literacy Course Enhancement Grant (from the WVU Libraries and the Office of the WVU Provost). This award will support Douglas' collaboration with Tech's librarians to integrate information literacy into her spring 2011 course, Advanced Clinical Problem Solving.

Dr. Faris Malhas, Dean of the Leonard C. Nelson College of Engineering & Sciences, announced that CONSOL Energy, Inc., made an unsolicited contribution of \$20,000 to WVU Tech. CONSOL Energy routinely employs WVU Tech students in its summer intern program and has hired several Tech graduates for full-time, permanent positions.

According to CONSOL Vice President, Jack Richardson, "We have had a long-standing relationship with WVU Tech. The educational program offered there does a very good job of preparing students for careers in the mining industry, and the performance of the Tech graduates who work for us is exemplary. It is important to us at CONSOL that Tech continues to prepare graduates who are able to meet the challenges we face as an industry."

In collaboration with **Cantrell L. Miller**, Director of Career Services and Co-Op Programs, and **Dr. Paul Rakes**, Associate Professor of History, **Richard Carpinelli**, Dean of Students, applied successfully for a grant of \$20,000 (from American Electric Power) to support student programming during the 2010 – 2011 academic year. This gift will underwrite the AEPower Hot Topic Debates, through which students will analyze and discuss such important national and international issues as global warming, renewable energy, national health care, social responsibility, mountaintop mining, and immigration.

Dr. Richard C. Schoening, Chair of the Department of Chemistry, announced receipt of a \$25,000 grant (from EPSCoR) to support the WV Research Challenge Summer/Semester Undergraduate Research Experience. This is the third consecutive year Tech has received this grant and, thus, a grand total of \$75,000 to support undergraduate research in environmental and energy related fields.

Also, according to Dr. Schoening, WVU Tech received a \$17,000 grant (from the PPG Industries Foundation) to support research in clean coal technology. This is part of the ongoing campaign to raise \$1.7 million for a Biochemistry Teaching and Research Laboratory, and it will be used to acquire key laboratory instruments.

Dr. Ufuk M.S. Tureli, Associate Professor of Electrical & Computer Engineering, received a mini-grant (from the WV Higher Education Policy Commission), to support the writing of his research proposal, *Intelligent ad hoc Radios with Dynamic Frequency and Waveform Adaptation*. This grant, which was one of only eight funded out of a total pool of 22 applications, will enable uninterrupted time for Dr. Tureli to continue to develop his research proposal.

According to Dr. Jan Taylor, Director of Research Programs in the Division of Science and Research at the HEPC remarked, "This year the competition was exceedingly strong. We received the largest number of proposals ever - throughout the history of our grant program. Because most of them were excellent to very good, the reviewers had a very difficult time choosing the eight leading proposals."

Faculty members, **Dr. Nan Wang and Dr. James A. Cercone**, received a grant of \$19,909 (from the WV Higher Education Policy Commission) for direct support of the *Undergraduate Autonomous Vehicle Test Platform* (VTP) project. This VTP project will provide more than 150

WVU Tech students with research opportunities in systems integration and low-level vehicle control systems.

According to Dr. Wang, Assistant Professor of Electrical & Computer Engineering, the VTP project is an integrated mobile test bed that uses an electric golf cart as its base platform. The VTP is fitted with a GPS, an onboard microcontroller system, a radio modem link, video, sonar and infrared sensors, and remote-control, fail-safe mechanisms.

Dr. Cercone, Professor and Chair of the Department of Computer Science, adds that these two academic departments are collaborating to research problems and test potential solutions associated with autonomous vehicles. Among these are terrain mapping, intelligent vehicle navigation, real-time processing, and telepresence control.

PERSONNEL IN THE NEWS

Dr. Deborah K. Beutler, Associate Professor of Biology, led a group of six Tech students, on a nine-day field trip to Costa Rica in June 2010. The group was able to tour three different rain forests, which were home to three unique collections of plants and animals, observe the eruption of the world's fourth most active volcano, visit a local beach, see a wildlife refuge, and experience the foods of the region.

Richard G. Carpinelli was named Dean of Students on July 6, 2009. As such, he oversees the planning, implementation, and evaluation of all student life programs. Carpinelli came to WVU Tech from Ohio University, where he also completed the M.Ed. in College Student Personnel. Previously he had earned the B.S. in Business Administration from Slippery Rock University.

Dr. Pamela S. Cutright was appointed Special Assistant to the Campus Provost on July 1, 2010. With her primary responsibility being the support of new initiatives, she has been integrally involved with the launch of Tech's strategic plan for 2011-2015, creation of a sustainable campus assessment plan, and enhancing globalization on the campus. Dr. Cutright served most recently with WVU Extended Learning and before that with Cooperative Extension Service at other land-grant universities. She earned the D.Ed. from The Pennsylvania State

University, the M.S. from the University of North Carolina-Greensboro, and the B.S. from WV Wesleyan College.

Sarah A. Ener was named Registrar on September 21, 2009. Her responsibilities include, among others, oversight of record-keeping policies and procedures, certification of degrees earned by Tech's graduates, course registrations, posting of grades, and updates to the university catalog. Prior to joining Tech, Ener was affiliated with the University of Houston – Clear Lake, where she also completed the M.A. in Humanities. Previously she had earned the B.S. in Sociology from Texas A & M University.

Dr. Evelyn M. Klocke, Assistant Professor and Chair of the Nursing Department, earned the Ed.D in Leadership Studies with a minor in Nursing from Marshall University in December 2009.

Rick Linio was named Director of Facilities Planning & Management on January 19, 2010. Among his many responsibilities are the campus master plan, campus construction projects, energy sustainability efforts, employee training, landscaping, and safety. Most recently, Linio served as District Manager for the Northeast Region of Sodexo Education Facilities Management. Previously he earned an Executive Certificate in Leadership & Organizational Management from the Cornell University School of Business Management and the B.S. in Business Administration from Morehead State University

Dr. Greg Lieving was elected executive officer for the Maryland Association for Behavior Analysis (MABA), a regional affiliate of the Association for Behavior Analysis International. He will serve during 2010-2011 as president-elect and during 2011-2012 as president. Dr. Lieving's areas of concentration include behavioral psychology, experimental analysis of human and animal behavior, applied behavior analysis, and research and design methods.

Frank Pergolizzi was named Athletic Director on July 23, 2009. He oversees the total athletic effort - personnel, budgeting, fund raising, compliance with conference policy and procedures, sports information, Sports Hall of Fame, sport event scheduling, and team travel arrangements, among others. Previously Pergolozzi operated an athletics consulting firm and directed the athletics programs of Southeastern Louisiana University. He earned the master's degree in athletic administration from Western Michigan University and the bachelor's degree in American civilization from Williams College.

Pergolizzi also announced that five new head coaches joined Tech's athletics staff during the past year:

Jennie Belarmino

Head Volleyball Coach

Last position prior to Tech – Club Director, Gulf Coast Select Volleyball Club Bachelor of General Studies from Ball State University

Jake Brumbelow

Head Wrestling Coach

Last position prior to Tech – Head Coach, Wolfpack Wrestling Club

M.S. in Counseling

B.S. in Humans with Exceptionalities from Carson-Newman College

Luis Cortell

Head Men's Soccer Coach

Last position prior to Tech – Interim Head Coach, Women's Soccer

M.S. in Sports Management

B.S. in International Business from University of Findlay

Crystal Dye

Head Women's Soccer Coach

Last position prior to Tech – Assistant Soccer Coach, University of Findlay

M.A. in Education from University of Findlay

B.A. in Health, Physical Education, and Recreation from Olivet College

Jenna Lehmann

Head Women's Basketball Coach

Last position prior to Tech – Asst. Coach & Recruiting Coordinator, Kent State University

Master of Public Service Administration from DePaul University

B.S. in Sports Administration from Stetson University

Reeta Piirala-Skoglund was named Director of Admissions & Recruitment on June 1, 2010. Previously she led the admissions office at Indiana University – Kokomo for six years, where she created annual and long-term strategic recruitment plans, developed policy, and managed

the operations of the admissions office. Piirala-Skoglund earned the M.B.A. degree and the B.S. degree in finance and economics from Indiana University.

Dr. Paul H. Rakes, Associate Professor of History, was called upon several times throughout the year because of his expertise in the history of coal mining and mine safety in West Virginia. He spoke at the WV Culture Center on April 6 and was also interviewed by the *Washington Post*, *The News Hour*, *Talk of the Nation*, *WVPBS*, *The Globe and Mail* (Canada), and several WV newspapers. Dr. Rakes is a third-generation, and now former, coal miner, who was born in a WV coal camp and worked in the coal industry for 20 years.

Dr. Rakes was also one of three Tech faculty members chosen to receive the Excellence in Teaching award presented by the WVU Tech Chapter of the National Society of Leadership and Success. This award recognizes professors who teach with passion, inspire students beyond the classroom, demonstrate dedication to developing students beyond academic qualifications, and make a positive difference in the lives of the students they teach.

Janis E. Rezek, Assistant Professor of Sociology, participated in a unique faculty exchange program at the University of Guanajuato, Mexico, in June 2010. While there, she collaborated with members of the university's sociology faculty on educational initiatives for Mexican women. Upon her return, Rezek will use this experience to become more engaged in WVU Tech's international programs and to facilitate greater diversity within Tech's classroom settings.

Tammy E. Saunders, Senior Financial Aid Counselor, was recognized as Employee of the Quarter by the West Virginia University Office of Financial Aid. Her selection was based upon her dedication to the needs of Tech's students and her exemplary work within financial aid and records across the total university system. Saunders has been with WVU Tech for 24 years.

Garth E. Thomas was named Associate Campus Provost on August 16, 2009. Thomas oversees all operations of the campus, including fiscal services, security, enrollment management, academic programs, student life, strategic planning, faculty development, and program assessment. He served previously as Interim Registrar for about a year, Chair of the Department of Chemical Engineering for 12 years, and member of that faculty for more than 25 years.

Thomas also traveled to Texas last April to meet and greet 26 of WVU Tech's faithful alumni who reside in the Longhorn State. He presented a certificate of appreciation to Ms. Valori Ranson for her service on the WVU Tech Chemical Engineering Advisory Board and as president of the Texas Alumni Chapter.

Dr. Guy D. Vitaglione, Associate Professor and Chair of the Department of Psychology, was named Coordinator of Strategic Planning on April 1, 2010. In that role, he oversees workgroups for the seven strategic initiatives, assures continuity of the planning process, and disseminates information to the campus and the larger community. Dr. Vitaglione has been a member of the Tech faculty since 1998, and his appointment as chair became effective in 2008. He specializes in social and developmental psychology.

Dr. Vitaglione is also principal investigator in a research project that looks at the ways people regard themselves and others when they interact in online environments and also at the frequency of their online activities. He is currently developing a test to assess a person's tendency to engage in online antisocial acts.

Dr. Melanie M. Whelan, Assistant Professor of Nursing, earned the Ph.D. in Nursing from West Virginia University in May 2010.

Michael A. White was named Director of Financial Aid on October 9, 2009. In this position he oversees financial aid policy and procedures and also serves as point-of-contact for all questions and concerns associated with financial aid, scholarships, and grants. With nearly 15 years of previous experience in management of financial aid, White was most recently affiliated with Dillard University. He earned the master's degree from Webster University and the B. S. degree from the University of Michigan.

Dr. Mark L. Wilson, Associate Professor of Economics, was one of only 25 economics professors from around the world to earn a competitive grant from the National Endowment for the Humanities. This grant enabled Dr. Wilson to participate in the three-week summer workshop, *History of Economics*, offered at Duke University in June 2010.

EVENTS AND SERVICE

<u>Arts and Humanities Programming</u> - Although best known as a STEM institution (Science, Technology, Engineering, and Mathematics), WVU Tech supports a vibrant arts and humanities scene.

- Under the leadership of **Donna L. Eisenstat**, Professor of English, "An Evening with the Arts and Sciences" and "The Spring Poetry Festival" afford students, faculty, and staff opportunity to read and discuss their poetry and prose and share their visual art. The annual publication "Image" then shares these beyond the borders of campus.
- Under the direction of **Patricia Kihn**, Professor and Chair of the Department of English, History, and Creative Arts, the Tech Players presented the musical comedy, "Nuncrackers," and drama "The Shining: A Ghost Story" in the Conley Hall theater
- Joe Dobbs and the 1937 Flood performed at Tech last spring and also led discussion on the roots of Appalachian music and the history of the instruments used to create their genre's distinctive sound.
- Wess Harris, who was WV History Hero of 2009, spoke on April 14, 2010 about the past and present of mining in the Appalachian Mountains, including mountaintop removal mining. Harris is an educator and farmer from Roane County who regularly takes his traveling museum to events throughout the region.
- Under the leadership of Janis E. Rezek, Assistant Professor of Sociology, the World Religion Speakers Series affords students, faculty, staff, and members of the community the opportunity to compare and contrast religions of the world. Presenters this year were Dr. Ravi Isaiah on Christianity, Reverend Dr. Rose Edington on Unitarianism, Rabbi Cohn on Judaism, David Miller on pagan and Wiccan beliefs, and Raj Gupta on Hinduism.

<u>Camp STEM</u> - A longstanding summer event at WVU Tech, Camp STEM was held the week of June 13-19. High-school students, strong in the STEM fields (science, technology, engineering, and mathematics), received a sampling of college-level instruction in such subjects as robotics, computer programming, and alternative energy, experienced a small taste of college life, and learned about career possibilities in the STEM fields.

<u>Commencement</u> - This year's keynote speaker, <u>Congressman Nick J. Rahall</u>, recognized the accomplishments of Tech's graduates and, citing the direct relationship between educational level and career stability, encouraged them to become lifelong learners during this May 8 ceremony. Representing WV's Third Congressional District and currently serving his 17th term in Congress, Congressman Rahall is highly respected for his positions on mining-related issues and on diversifying the economic base of southern West Virginia - through transportation, technology and tourism, on protection of the land, and also on affordable access to higher education.

Community Service Projects of Student Athletes – Initiatives for the year included:

- "Get Up and Go" in which Tech athletes partnered with students at a local high school to encourage active lifestyles and wellness
- Reading program in which football players read to grade-school children
- Students at a local high school, middle school, and midget league use Tech's football facilities
- The partnering midget league plays during one of Tech's regular football games
- Reading program in which players in men's basketball read to grade-school children
- Students on peewee teams play during regular men's and women's basketball games

<u>Haitian Relief Efforts</u> - Members of several student organizations at Tech – the Student Government Association, Biology Club, Christian Student Union, Alpha Pi Omega, and Women's Soccer Team – held fundraisers for the Haitian earthquake relief effort. These efforts, along with those by representatives of the Southern Appalachian Labor School and Bridgemont Community & Technical College, yielded a contribution of more than \$1,000 to the Red Cross.

<u>Hepatitis B Clinic</u> – Coordinated by **Peggy Lambert Fink**, Assistant Professor of Nursing and Director of the WVU Tech Student Health Clinic, the Student Health Clinic and Fayette County Health Department provided a free Hepatitis B Clinic on April 29 for anyone – student, faculty, staff, or member of the Montgomery community – 19 years of age and older.

<u>International Student Picnic</u> - The International Student Association hosted the Tech community at a picnic on the campus mall on April 25, 2010. Dozens of cultures currently represented on the campus were spotlighted through entertainment, music, conversation, and

food. The International Student Association outdid itself with the deliciously spicy Jamaican cuisine!

<u>Math Field Day</u> - More than 150 students competed last March in this Regional Education Service Agency (RESA) III and IV event that is hosted annually at Tech. The six highest scoring high school seniors from each of the two RESA's, twelve students in all, were offered a valuable WVU Tech scholarship - \$5,000 a year for up to four consecutive years, assuming satisfactory academic progress.

<u>Morris Creek Watershed</u> – The Department of Biology was actively engaged in protecting this watershed:

- Aleah Martin, a Tech student, developed a wildlife management plan
- Aleah Martin and Dr. Lisa Ferrara, Professor and Chair of the Department of Biology, worked together to develop a plant inventory
- Adam Vickers, also a Tech student, monitored water quality
- Associate Professor, Deborah K. Beutler, collected data on birds and other wildlife found in the watershed

The biology club also cleaned up trash, built bird houses and placed them around watershed, and as part of a Trout Unlimited program released trout that had been raised by students in local elementary schools.

<u>Political Science Speakers Series</u> - Coordinated annually by <u>Barry Harrison</u>, Professor of Political Science, this series brought three celebrated public figures to Tech last April to share their wisdom and experiences with students and members of the Tech community: Secretary of State Natalie Tennant, United States Secret Service Agent Matt Rugh, and WV National Guard Adjutant General Allen Tackett.

<u>Science and Engineering Fair and Creative Arts Competition</u> - WVU Tech hosted the Central and Southern WV Regional Science and Engineering Fair and Creative Arts Competition in March. Students in grades 9-12 from public and private high schools, or homeschooling, representing 19 counties competed in investigatory projects, display projects, art exhibits, submitted papers, symposia, and Olympiad Events.

<u>STEM Awards Banquet</u> – Dean Faris Malhas and several department chairs from the Leonard C. Nelson College of Engineering and Sciences recognized outstanding STEM students at an awards banquet on April 27, 2010. In addition, a number of scholarships were awarded.

<u>Tax Assistance</u> - In collaboration with the Internal Revenue Service, accounting students at Tech were trained and certified for the Volunteer Income Tax Program (VITA). Through the VITA program elderly, disabled, and low-income clients from the local communities received assistance with preparation of their federal and state income tax forms.

<u>Tech Me Out to the Ball Game</u> – Tech's Student Government Association (SGA) was the sponsor of the April 22 event at Appalachian Power Park in Charleston. The SGA raised funds for t-shirts given at no charge to the first 1,000 fans entering the gates. SGA President, **Jacob Curnutte**, threw the opening pitch, and Tech students were featured in a number of activities throughout the evening.



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Appendix B: Strategic Plan 2010-2015



The 2010-2015 Strategic Plan of West Virginia University Institute of Technology

May 30, 2010

Authored by Dr. Guy Vitaglione, WVU Tech Strategic Planning Coordinator And Professor and Chair, WVU Tech Department of Psychology

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Prologue: The Vision of West Virginia University Institute of Technology in 2015

(A narrative description of WVU Tech in the year 2015)

West Virginia University Institute of Technology, the premier university of the region, is recognized nationally for its excellent, cutting-edge academic programs. WVU Tech is a leading STEM institution (Science, Technology, Engineering, and Mathematics) and a designated U.S. News and World Report Top 100 Best Engineering College. Degree programs in engineering, technology, health care, business, humanities, and the social sciences are thriving, and several new interdisciplinary degree programs have been launched to prepare Tech students for emerging worlds of work.

Campus life is vibrant. With larger numbers of female, international, and out-of-state students enrolled in academic programs, the student population is richly diverse. New student organizations have been formed and existing ones revitalized to afford students a more enriching student life experience. Student success programs continue to assure students the individualized educational support essential to classroom success. Renewed by enhanced facilities, WVU Tech athletics is enjoying record success. New programs for special audiences keep classrooms, residence halls, and activity centers busy during the summer months.

Through adoption of data-driven and transparent governance, WVU Tech has a solid foothold on its future. Enrollments have grown steadily, and academic programs are financially self-sufficient. Members of the Alumni Association have contributed generously to their alma mater, and as a result endowment funds in the WVU Tech Foundation have increased substantially. The campus is being transformed through implementation of the master plan, as demonstrated by several new construction projects, attention to renovation and maintenance needs, and a campuswide beautification effort.

Our Core Values

At WVU Tech we are...

Student Centered
Collaborative
Entrepreneurial
Innovative
Accountable
Passionate and Enthusiastic
Committed to Diversity

And we value...

Our People, Excellence, Integrity

Introduction: The Strategic Process to Achieve the Vision

The "2015 Vision Statement" was developed in early 2010 in retreat meetings and brainstorming sessions with key administrators and staff. A series of public meetings presented the vision to the greater WVU Tech community of faculty, staff, students, and others.

The WVU Tech Classified Staff Council unanimously approved the "2015 Vision Statement" on March 11, 2010.

The WVU Tech Student Government Association passed a resolution of support for the Strategic Planning Process on March 23, 2010.

The WVU Tech Faculty Assembly unanimously approved the "2015 Vision Statement" on April 8, 2010.

Seven key initiatives were identified to make the vision a reality. Each initiative was developed in a workgroup consisting of volunteers from a broad swath of the community and facilitated by a workgroup leader. The seven initiatives and their respective leaders are:

Enhancing Financial Resources and Creating a Sustainable Business Model – *Solomon Addico*, *Chief Financial Officer*

Strategic Recruitment and Retention – Reeta Piirala-Skoglund, Director of Admissions and Recruitment

Campus Facilities and Beautification – *Rick Linio, Director of Facilities Management and Planning*

Creating an Improved Student Experience – Richard Carpinelli, Dean of Students

Our People and Our Culture – Kevin Lawhon, Director of Human Resources

Enhancing Academic programs – Garth Thomas, Associate Provost

Enhancing Relations and Communications – Mary Hollister, Interim Director of Relations & Communications

The workgroups met independently during Spring 2010 to flesh out and articulate each initiative. The initiatives are interdependent, with the success of one area heavily dependent on the success of the other areas. The seven initiative workgroups are facilitated and shepherded by Guy Vitaglione, WVU Tech's Strategic Planning Coordinator with assistance from Pam Cutright, Assistant to the WVU Tech Provost.

This document provides an outline of the goals and timetables for each of the seven initiatives to achieve the 2015 vision. Each page addresses one initiative.

Enhancing Financial Resources & Creating a Sustainable Business Model

Establishing a sound financial base is critical to Tech's entire strategic process and is a necessary precursor to other campus developments. Thus, many of the financial strategic objectives are targeted to be completed by the end of the second year of the five-year process. The remaining three years would be used to study the implemented changes for refinement and calibration to maximize the efficiency of offered services and programs while increasing revenues.

To enhance existing financial resources, a study is to be completed in the first year that identifies best business practices which can be implemented that simultaneously creates fiscal efficiencies and enhances the delivery of services. By the end of year two, outdated printing equipment will be replaced, and strategies for a new debit card system will be developed. A multiyear, ongoing process will be used to develop activities that provide services which also enhance revenue.

A sustainable business model for Tech must respect the needs of its students and the community. By the end of the first year, an analysis will be completed that determines a fair tuition and fee structure that balances students' ability to pay with institutional funding needs.

Tech has a rich variety of physical assets and programs that, if managed effectively, should contribute to an expanding revenue base. Using data from government agencies and peer institutions, by the end of the second year a financial analysis of grants, contracts, and sponsored programs will be completed that sets a standard for indirect cost rates for the entire institution. By the end of the first year, a comprehensive plan will be developed that sets the policies and procedures for the rental and effective use of Tech's existing and newly-developed facilities. Similarly, a plan for carefully scheduling and utilizing campus facilities along with controlling expenditures will be aimed at enhancing revenues.

A coherent plan for long-term business sustainability must be the product of a data-driven process. Prior to the end of the second year, a multi-year institutional budget will be articulated that is based on a careful study of academic departmental and campus financial figures. Current and historical fiscal reports, enrollment trends, salary and tuition schedules, program capacities, and other information will be used to construct budget targets that are realistic and responsible. The remaining three years of the five year plan will be used to carefully study the accuracy of the budget targets and to make necessary adjustments. The measured success of Tech's financial resources strategic initiative will depend on hitting these targets.

Strategic Recruitment and Retention

Expanding student enrollment and retention is the heart of WVU Tech's mission to serve the community. Recruitment efforts should be focused on specific populations and have targeted, achievable short-term goals that feed into a long-term growth strategy. Developments in the other areas of strategic planning, especially enhancing campus life, facilities, and academic programs will result in a confluence of positive contributions that drive up recruitment and retention.

To achieve the 2015 vision for Tech's enrollment, a comprehensive review of the capacity of all academic departments and programs will be completed by the end of the first year. Using current and historical data, this review will identify student enrollment trends in specific academic fields and assess Tech's needs to ramp up or ramp down certain programs to better serve the needs of a wider student population. Data from the trends of similar institutions will also provide insight into how Tech should calibrate its academic offerings to meet the needs of students in the 21st century. Because academic adjustments must reflect the abilities of existing faculty, facilities, and students as well as future needs, careful and controlled changes will take place during years two through five, with continual reassessments as part of an ongoing process.

Annually-derived clear and realistic enrollment goals are critical to a successful recruitment and retention plan. By the end of the first year, and for each successive year, enrollment data from peer and "aspirational peer" institutions will be used to establish benchmarks to gauge progress and to make any necessary changes to increase progress. An annual recruitment plan will be developed that is based on future markets for various skill sets and degrees. Each year the plan will "reset" to adjust for market changes and different success results from prior years. Annual recruitment plans will also take into account existing student body characteristics, with a special focus on increasing diversity with more female and international students, as well as selective recruiting from certain areas in surrounding states.

New, non-academic programs will also be identified that could contribute to increased enrollment and retention. Athletics, music, arts, community theatre, service clubs, student groups, and other organizations contribute to campus life, the community, and have been shown to sustain retention at Tech and other institutions. An initial survey will be completed by the first year that identifies potential programs of interest. Years two through four will see the initiation and implementation of a number of such programs.

Campus Facilities and Beautification

Many of WVU Tech's strategic initiatives regarding finances, enrollment, academics, student life, and more intersect with its physical campus and facilities. To integrate these varying initiatives, a campus master plan will be developed in the first year. This plan will be designed in coordination with the WVU Facilities Planning Department to identify existing campus needs and to anticipate future needs. Years two through five will see a continual revising of the plan based on changing needs, funding sources, and construction progress levels.

By the middle of year two, a campus-wide analysis will result in a prioritized list of deferred maintenance projects and capital renewal projects. In tandem with this list will be a capital funding plan that identifies potential sources of monies that could fulfill the projects.

Year one will also see the development of a campus sustainability program. By years two, three, four and five a campus recycling program, along with other similar programs, will be integrated into the campus master plan and incorporated into Tech culture. Similarly, a campus audit of energy consumption patterns will be completed in year one and energy/cost saving systems will be applied and integrated into the campus master plan for continued review in successive years.

To best get input on facility needs that would enrich learning environment and student life, focus groups will be conducted and analyzed in year one. Realistic goals to achieve identified needs will be set in year two and implemented in following years accompanied by repeated re-analysis with key faculty, staff, and students. Other plans in the first year would lay out a system for campus signage and set landscape master plans that capture campus topography and horticulture. The plans would be implemented based on established progress benchmarks for each following year.

An outside firm will conduct an assessment of campus service operations to correctly set staffing levels for particular academic units and their related infrastructure. The adequacy of the staffing levels will be studied each year following prior year changes.

The first two years will see streamlined and centralized web based scheduling of classroom and meeting space throughout campus. Space specifications and usage levels must be entered into the master plan to increase space efficiencies. The system's effectiveness will be studied for tweaks in following years. Similarly, a standard fee schedule for the use of ancillary spaces on campus will be set and updated annually.

Creating an Improved Student Experience

High retention and graduation rates are indicative of institutions that provide quality, supportive and engaging campus life experiences for students. This strategic initiative will focus on instituting new and improving existing student support programs and services. Being student-centered is a historic strength of WVU Tech and is vital to its future success.

By the beginning of the second year, a student satisfaction survey developed by outside consultants will be administered and analyzed to identify student programs and services that are successful and should be maintained as well as those that are in need of improvement or development. The second and third years will see concrete steps taken to develop and improve specific services, and every year the student satisfaction survey will be re-administered to obtain objective feedback to refine service delivery. Further concrete data that measures student experiences will be gained from student retention rates, with benchmarks for increased retention rates set each year.

The first two years will also see the creation of a comprehensive student success center that focuses on academic advising and residential programming for first-generation, first-year, and transfer students. It will also provide personal counseling for all students.

Other goals that span the five-year period include encouraging a climate of "conspicuous campus pride" by increasing the number of students engaged in "high commitment" student activities (e.g. athletics, marching band, drama, intramurals) and recognizing student achievements outside as well as inside the classroom.

Tech athletics are recognized as an important part of student life, and key goals for athletics have been identified as an element of this strategic initiative. Specifically, by the end of the first year Tech will have completed a full application for reentry to the NCAA/WVIAC. In the same time period, a feasibility study will be completed for renovation of the Martin Field facility to include on campus facilities for soccer and softball. Student-athlete retention benchmarks will be set each year, with expected increases based on the yearly implementation of improvements such as focused athlete academic and financial aid advising, recruiting practices that emphasize athletes who meet academic admissions standards, and improvements in the Tech student athlete campus life experience based on student assessments and exit interviews.

Our People and Our Culture

The strategic objective of the Our People & Our Culture initiative is to create a campus work environment and culture that embraces WVU Tech's mission and core values. The level of greatness Tech achieves will be in direct proportion to the value placed on both its employees and community. Attracting, developing, and retaining talented and qualified faculty and staff are central to Tech's continued achievements. As with all strategic initiatives, these goals will be reached using a data-driven process. The first year of the strategic process will see a series of position analyses. For example, by the end of the first year thorough performance reviews will be completed on all faculty equivalent academic professionals, classified, and non-classified staff. These reviews will include training and evaluation workshops, supervisor meetings, and employee self-assessments of performance.

Similarly, a first-year goal is to update and refine all staff position responsibilities and duties to maximize efficiency and synchronize various job roles. Both employees and supervisors, as well as the broader community, will be asked to participate in contributing information to meet this goal.

Critical to the success of Tech and its employees is a long-term plan for training and development. By the end of the second year, improvement goals, training needs, skill and development funding sources and opportunities will be identified. At the same time, student and institutional needs that are unmet will be identified and matched to specific training goals for employees. This can be facilitated with a first-year pilot career management program that helps staff identify personal professional goals that mesh with long-range institutional goals for mutual benefit.

A successful workforce is the product of successful anticipation of future retirements, position alterations, and new institutional and community needs. By the end of the second year, an analysis will be completed that charts expected personnel shifts across the entire campus. New skill sets and competencies will be identified and incorporated into a model recruiting strategy, completed by the end of year two, that reaches successful candidates to fill critical areas.

There is much that students and workers in WVU Tech's community are doing right, and such people and their best work practices must be identified and celebrated. The end of the second year will see a clearly-defined procedure that identifies, rewards, and communicates to the community those members who make Tech so special. Years three, four, and five will be used to identify and exploit workforce opportunities resulting from the successful completion of the goals from years one and two.

Enhancing Academic Programs

An enduring strength of WVU Tech is the quality of its academic programs. The institution has state of the art facilities and labs, and a tradition of unsurpassed excellence in scientific and applied disciplines. There is a bright future also in the creation of interdisciplinary programs (such as energy systems engineering) and that the transformed national focus on innovation, science, and technology creates an enormous opportunity for Tech to achieve renewed prominence.

To enhance Tech's academics, by the end of the first year data will be gathered on all current academic units to evaluate their capacities for sustainable growth. National data will be collected to determine student enrollment trends that assess each program's market potential. Additionally, national research funding sources for key disciplines will be identified. This information will be combined with the resource requirements each program reports during a one-year audit. Years two through five will see a refinement of Tech's academic offerings that are aligned with student and national markets.

By the end of the second year, Tech's support courses will have undergone a review and be modified to more directly serve student demand and interest. Redundant or low-demand courses will be modified to more effectively deliver streamlined academic programs. This year will also see the reemergence of a student honors program to recognize and motivate Tech's brightest and most promising students.

By the end of the third year, special cooperative relationships between different academic units will be identified to take advantage of public and/or private funding opportunities for research and educational program innovation. New minors and areas of academic emphasis will be developed as well.

The five-year plan for enhancing academic programs will also have Tech moving to the forefront of new educational techniques. By year three, more part-of-term courses, more study abroad programs, and an increase in undergraduate research opportunities will be integrated with a widespread adoption of technology-enhanced pedagogy, including on-line courses, tele-conferencing internship experiences, and other techniques. Years four and five will emphasize campus-wide reviews of these innovations to determine student satisfaction and any necessary refinements.

Enhancing Relations and Communications

Strengthening WVU Tech's relationships with its workers, students, and broader community is a core initiative for the 2015 vision. A series of specific goals have been set to nurture relations and improve lines of communication. By the end of the first year, Tech will have published an impressive institutional web site that is robust, attractive, and useful to visitors and community members. A number of professionals will be engaged to design and improve the site in order to meet the one year time table. Content will include a wealth of information such as interactive campus tours and laboratory multimedia that is helpful to prospective as well as current students. It will be updated daily to provide the very latest information to all interested parties. Years two through five will include regular annual reviews by administrative and academic units, as well as students, to improve content usefulness and accuracy.

The first year will also see a comprehensive communications plan to effectively disseminate information. Modes include postal mailings, online event newsletters, YouTube, Facebook, and Twitter accounts, web site and blog RSS feeds, and regular contact with West Virginia news organizations. Successive years will involve data collection and analysis of the respective modes to determine which should be emphasized/modified to maximize communications impact and audience. Proper protocols and procedures will be developed as part of the plan to ensure message clarity and responsiveness. Two-way lines of communication with students are crucial for Tech to serve its mission, and a variety of systems, including email but especially social (internet) media, will be assessed in the first year and re-assessed in following years to guarantee the best levels of discourse between students and the school.

Years one and two will also see the data-driven development of a marketing communications program that focuses on student recruitment. Prior to recruiting efforts, it is important to establish early discussions and familiarity between potential student populations and WVU Tech. Using targeted populations identified in the strategic recruiting initiative, Tech has a great story to be told, and this communications program will be used to convey that story to these populations. Successive years will involve reassessments of the marketing program to fine-tune it to increase impact and more closely match the target audiences' varying interests and needs.

All of these specific goals will feed into a broader aim of renewing our connection to a vast population of alumni loyal to Tech. Enhanced communication, feedback, and outreach will yield a vital, active, and engaged alumni association and network. Each year in the five-year plan the participation levels of engaged alumni will be gauged to identify best practices in reaching our people.

Epilogue: A Living Document, Process Participants, and Further Information

This strategic plan is a "living document." Strategic planning is an organic, fluid process that by necessity must change over time to accommodate new internal and external developments. Exciting new opportunities, unexpected delays and a host of unpredictable events require the planning process to be flexible and adaptable. As the strategic process goals, benchmarks, and timetables are refined over time, the changes will be updated, documented, and communicated directly to the community as they occur.

Hundreds of people, including faculty, classified and non-classified staff, administrators, students, consultants, alumni, colleagues from fellow institutions, and community members from Montgomery and the surrounding area volunteered their time, ideas, and effort to this strategic plan. Special thanks go to Delegates Bonnie Brown, Nancy Guthrie, and John Pino for their participation. The vision we all share of WVU Tech in 2015 will truly become a reality thanks to Tech's extended family.

For further information about the people, process, and procedures employed to develop this strategic plan, go to the WVU Tech institution's web page, at www.wvutech.edu and click on the "Strategic Planning" update button in the left column menu.

For questions or other information about WVU Tech's strategic planning, or if you would like to volunteer in or contribute to our strategic planning process, please contact Guy Vitaglione, the Strategic Planning Coordinator:

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