Program Summary

Task Force: A strong goal would be to focus on faculty/student research collaboration. This could enhance student learning and increase retention/graduation rates. It seemed like several of goals were focused often internally (retraining office staff, evaluating classes), goals that could be done at any time.

Thank you for the time and effort you put forth in your report. Through the USAP process, we are working to create a culture of continuous improvement; setting specific and measurable goals is an important step in the process of moving IPFW toward this culture of improvement. Part of this effort is getting individuals and units at IPFW to think differently about planning and the future. The work of the Geosciences Department is critical to IPFW and we greatly appreciate the time you spent on this significant endeavor. Thank you again for being part of this important initiative.

Criterion: #1: Mission - How does your unit support the mission of the university? This may include your mission and vision statements. (no more than 200 words)

Question: Mission - How does your unit support the mission of the university? This may include your mission and vision statements. (no more than 200 words)

The mission of the Department of Geosciences is to provide a rigorous undergraduate education for our students, preparing them for success in private or academic pursuits once they leave our program. This department will provide well equipped labs and research instruments for the students and faculty, thus ensuring an environment which promotes furthering faculty research and student participation, creating educational opportunities for both the student and the professor.

The collective goal of the department is to provide support to encourage a broad understanding of geosciences and astronomy with the hope of generating excitement within our staff and students in order to perpetuate that excitement in the general public as well. We are committed to our community and alumni by providing outreach with advice and support in educational and private enterprises.

As well as a focus on academic excellence, we also believe in nurturing a code of conduct which is outlined by The Geological Society of America.

Criterion: #2: Accomplishments - Please list significant accomplishments from the last three years as they align with Plan 2020 goals

Question: I. Foster Student Success - Please list significant accomplishments from the last three years as they align with Plan 2020 goal area I: Foster student success.
2. Significant accomplishments, 2012-14, aligned with 2020 goals

I. Foster Student Success

Curricular Changes (also see part IV)

Introduced capstone for all graduates (BA and BS) in Geosciences. Capstone requires students to conduct research, present results and understand ethical behavior for geoscientists. Provides high impact experience.

Experimenting with single weekly block Geology 103 course to reincorporate field work into the introductory level course. Experimental course organization to allow introductory students to experience geology in the field and at sites where it is used professionally.

Introduced G331 Field trip to the Bahamas.

Student-sponsored Field Trips

Field trip to Kentland Impact Structure, Kentland, Indiana (led by Pinan-Llamas)

Field trip to Mt. Orab, Ohio (led by Pinan-Llamas)

Student Research

See section II for student-authored publications. Students are designated with an *.

See ACS-PRF grant to Dattilo under Section II-grants. Most of the ACS-PRF is support of student research, including providing research-related jobs for students to keep them focused on their academic goals rather than mere survival, research travel money to make it possible for them to spend time in the field, and conference travel money to help them present their findings in a professional venue.

Helped fund travel for two students to give papers at 2013 Annual Geological Society of America meeting in Denver, CO.

Helped fund travel for seven students to give papers at 2014 National Geological Society of America meeting in Vancouver, BC, Canada. One of the students served as north-central student delegate.

Question: II. Creation of Knowledge - Please list significant accomplishments from the last three years as they align with Plan 2020 goal area II: Promote the Creation, Integration, and Application of Knowledge.
II. Promote the Creation, Integration, and Application of Knowledge

Refereed Research abstracts, proceedings and full-length papers. Students designated with *. IPFW student or professor in bold.


Dattilo, B.F. and C.E. Brett, 2014, Does Tempestite Proximality Explain Mudstone-Limestone Cycles? A
Case Study in the Upper Ordovician of the Cincinnati Arch, American Association of Petroleum Geologists Annual Convention and Exhibition, April 6-9, 2014, Houston, Texas.


Farlow, J.O., G.J. Kuban, and P.J. Currie, 2013, On the makers of “metatarsal” tridactyl dinosaur footprints of the Paluxy River (Glen Rose Formation, Dinosaur Valley State Park, Somervell County, Texas). North-Central Section, GSA, Abstracts with Program.


Freeman, R.L. and B.F. Dattilo, 2014, How many shells are in a shell bed? Mixed taphonomy and shell destruction in a time-rich storm-disturbed Cincinnatian (Ordovician, Katian) shell bed. GSA Abstracts with Programs 46(4):1. Presented at the North Central Section Meeting of the GSA.


*Kime* B. and **Isiorho** S. A. 2014, Small town water quality and health concerns, nitrate levels increasing in the midwest, northeast Indiana, USA. GSA Abstracts with Programs Vol. 46, No. 6, p.531.


**Matthews** T. *Budd* S. K. and **Isiorho** S. A, 2014, Determining the water quality at Indiana University-Purdue University Fort Wayne (IPFW) using well data. GSA Abstracts with Programs Vol. 46, No. 6, p.531.


*Mosser, S.L., 2012, Fine-scale lithologic variations in late Ordovician (Katian) peritidal deposits of the Kentucky bluegrass region suggest sea-level fluctuations as the primary mechanism for type Cincinnatian meter-scale cycles ... peritidal deposits of the Kentucky bluegrass region suggest sea-level fluctuations as the primary mechanism for type Cincinnatian meter-scale cycles, GSA Abstracts with Programs, Vol. 44, No. 5, p. 16.

*Mosser, S. L., 2012, Navigating Ancient Midwestern Seas: The Geologic Record of Flooding and Emergence on a Large Paleozoic Platform ... deposits of the Kentucky bluegrass region suggest sea-level fluctuations as the primary mechanism for type Cincinnatian meter-scale cycles; GSA Abstracts with Programs, Vol. 44, No. 5.


Pinan-Llamas, A., Möller, C., Johansson, L., Lundqvist, I., and Escamilla-Casas, J. Structural
characterization of the eastern Segment in the Glassvik area (Halland Province, SW Sweden) GSA Abstracts with Programs. v.44, n.7, p.37.


**Editing**

Farlow edited 16 books in Life of the Past series for IU Press.

**Grants**

Farlow, 2012, IPFW Senior Summer Faculty Grant: Dinosaur Tracks and Invertebrate Traces in the Glen Rose Formation, Dinosaur Valley State Park, $8,000.

Farlow, 2012, National Geographic Society: Dinosaur Tracksites of the Paluxy River Valley, Dinosaur Valley State Park, Glen Rose, Texas, $17,000.

Farlow, 2013, National Geographic Society: Fossil Large Mammals from the Pipe Creek Sinkhole (Grant County, Indiana), Field work in summer 2014, $13,580.

Farlow, 2014, Indiana Academy of Science: Fossil Large Mammals from the Pipe Creek Sinkhole, $3000.

Dattilo, 2014 (for funding period 2015 through 2018), American Chemical Society Petroleum Research Fund: Do Cincinnatian (Ordovician) Phosphorites Result from Intrinsic Organic Burial Processes or Extrinsic Conditions?, $70,000.

**Reviews of Manuscripts and Grant Proposals.**
Farlow reviewed four manuscripts.

Farlow reviewed one Grant Proposal.

Isiorho reviewed 20 manuscripts for international journals.

Isiorho reviewed 56 abstracts for national and international conferences.

Isiorho reviewed 3 proposals for national funding agencies.

**Thesis and Dissertation Committees**


Farlow, 2014, Member PhD Thesis committee, Department of Geology, IU Bloomington.

Pinan-Llamas, 2012-2014, External committee member, Lund University, Sweden.

**Leadership in Professional Associations**

Dattilo, 2014, Council member, North Central Section of the Geological Society of America.


Isiorho, Member, Board of Editorial Advisors, The Canadian J. of Pure and Applied Science.
Isiorho, Associate Editor, The Professional Geologist “TPG”.

Isiorho, Editorial Advisory Board Member, The Open Hydrology Journal.

**Specialized Professional Training**

Argast, 2012, Certificated for features analysis on the scanning electron microscope, Training School in Concord, MA.

Argast 2013, Certificated for wavelength dispersive analysis, Training school in Pleasanton, CA.

**Research and Teaching Infrastructure maintenance and upgrades**

Created Argast Family Imaging and Analysis Lab

- Nine internal IPFW faculty users
- Two external academic users
- Supports class work in G100, G221, G334, G425, Criminalistics, student research.

Added/upgraded major research/teaching instrumentation (~50K and larger):

- Scanning Electron Microscope
- Energy Dispersive X-ray Analyzer
- Wavelength Dispersive X-ray Analyzer
- X-ray Diffractometer
- X-ray Fluorescence Spectrometer

Added major capital (~$5,000K+) equipment in support of research/teaching.
Carver Press/Die
Leica Microscope
Mettler Semi Micro Balance
Hermle Ultra Centrifuge
Jade Software for XRD
Plus assorted smaller ($1000+) acquisitions

**Question:** III. Regional Hub - Please list significant accomplishments from the last three years as they align with Plan 2020 goal area III: Serve as a Regional Intellectual, Cultural, and Economic Hub for Global Competitiveness.

**III. Serve as a Regional Intellectual, Cultural, and Economic Hub for Global Competitiveness**

*Activities directed at local industry.*

Argast Family Imaging and Analysis Laboratory (AFIAL)

Twelve external corporate partners with formal TAA arrangements.

Over $100K in billable receipts

Developed AFIAL web site for better communications with on- and off-campus users.

2-time participant in New Tech outreach

Hosted visit with Hodge Patel, State Director for Senator Joe Donnelly.

Sponsored region-wide luncheon of significant business leaders, briefly keynoted by Scott Glaze.

**Technical Reports**

Argast, 64 technical reports for area businesses.
Activities directed at pre-college audiences and community groups

Farlow, 2014, Dinosaur Tracksites of the Paluxy River Valley (Glen Rose Formation), Friends of the University.

Martha Hoyt Goings, Dual credit teacher and department graduate: Winner of 2014 Outstanding Earth Science Teacher Award for Indiana, by National Association of Geoscience Teachers. The award specifically acknowledges her creation of curriculum for United States and international students on dinosaur trackways, as an extension of a National Geographic Society-funded project in the Paluxy River outside Glen Rose, Texas. Faculty supervision by Gildner, Farlow and Dattilo.

Sigma Gamma Epsilon (SGE) Students helped SE Allen school district develop their geogarden.

Science Olympiad coordinators, 2012/14, Pinan-Llamas, Dattilo, Isiorho, Gildner,

Isiorho, S. A, 2014, Listen, your environment is talking: You will hear the rocks talk!. 17th Annual Fort Wayne Teaching Conference.


Multiple years, Participation in CTE/STEM Expo.

SGE students gave program at Indian Rivers Middle School.

SGE students provided program for local Webeloes.

2014, Three students and four faculty participated in SASI/Campus visit

Three Rivers Gem and Minerals Society talks; 2012/13 Pinan-Llamas & Dattilo; 2013, Argast

2012-2014, Geoclub presented geo-focused children's activity at Forks of the Wabash Pioneer Festival in Huntington
2014, Geoclub presented geo-focused children’s activity at Johnny Appleseed Festival

**Activities directed at college audiences (on and off campus)**

Argast, 2012, Circumnavigating the Sierra Nevada, Noon talk to IPFW Geoclub.

Argast, 2012, Geology of Alaska, Noon talk to IPFW Geoclub.

Dattilo, 2012, Kent State University Geology Colloquium. Layer-Cake stratigraphy versus facies mosaics in the Cincinnati Ordovician: what is the bedding scale structure of the stratigraphic record?

Dattilo, 2012, IPFW College of Arts and Sciences First Mondays Talks. The Layer Cake Paradox: How Did Patchy Environments Become Uniformly Layered Sediments in the Ancient Marine Deposits of Cincinnati?

Dattilo, 2014, IUPUI Department of Earth Sciences Seminar. The sedimentology of shell-bed formation in the Cincinnati Ordovician.

Dattilo, 2013, University of Kentucky Geology Colloquium. Revising Rafinesquina: new insights on a familiar fossil.


Dattilo 2012. IPFW College of Arts and Sciences First Mondays Talks. The Layer Cake Paradox: How Did Patchy Environments Become Uniformly Layered Sediments in the Ancient Marine Deposits of Cincinnati?

Farlow, Peace River Research Centre, Tumber Ridge, British Columbia, Canada, Feet and Footprints of Large Carnivorous Dinosaurs


Farlow, 2013, Keynote for IUB Crossroads conference, Dinosaur tracksites of the Paluxy River Valley (Glen Rose Formation, Lower Cretaceous), Somervell County, Texas.

Farlow, 2014, Hillsdale College, Dinosaur Tracksites of the Paluxy River Valley.

Isiorho, 2013, Judge for student posters at IUB Crossroad conference.

Pinan-Llamas, 2014, Deformation in the Eastern Segment of the Sveconorwegian Orogen (SW Sweden), Department of Geological Sciences, Ball State University, Muncie, IN

**Activities directed at regional professional organizations**
Dattilo, B.F., C. Aucoin, C.E. Brett, and T.J. Schramm, 2013, Fossils and Stratigraphy of the Upper
Ordovician Standard in South Eastern Indiana. 2013 Joint PGI All Universities Roaming Fieldtrip. (Field
book and led trip.)

Dattilo, 2013, Hess Corporation/Consol Energy Utica Shale Group Field Workshop: The "Point
Pleasant" and Utica Shale Equivalents of Kentucky.

2014, SGE students participated in coat drive with state professional geology organization.

Dattilo, 2014, The Origin of Cincinnatian (Ordovician) Interbedded Mudstones and Limestones:
Tempestites in a Teapot?, Indiana Geologists (an organization of professional geologists in Indiana).
Ten geology department students participated in meeting.

Isiorho, S, 2012, Undergraduates Conference Attendance, a Win-Win Situation for Students and Their
Home Institution. The Professional Geologist Jan/Feb.

*Lambert, C., 2014, Participated in the PGI (Professional geologists of Indiana) Annual Field Trip:
Middle Mississippian Carbonate Platform Evolution in South-Central Indiana.

Leadership in Geo-Related Community Organizations

Isiorho, Expert Advisor to the Little River Wetlands.

Department Activities Featured in Local News Outlets

2012 Journal Gazette article about AFIAL dedication

2013 New Sentinel article about "The Complete Dinosaur" coedited by Farlow

2013 Auburn Star article about Farlow's work with dinosaurs and Pipe Creek Quarry

2013 New Sentinel Picture/Blurb about Sunderman Inukshuk and dedication.

2013 Journal Gazette Picture/Blurb about Sunderman Inukshuk and dedication
Question: IV. - Create a Stronger Univ - Please list significant accomplishments from the last three years as they align with Plan 2020 goal area IV: Create a Stronger University through Improving the Support of Stakeholders and the Quality and Efficiency of the Organization.

IV.

Staff training and service


Tennis, Member of Local Service Provider ITS Communications Committee, IPFW CSSAC representative to West Lafayette CSSAC, IPFW Summerfest committee member, IPFW Staff Recognition committee member

Weber, Recent Training Classes: Concur, Class Climate Change, Schedule production (refresher with changes), USAP software, Microsoft Outlook 365 plus ad hoc self training.

Weber, CSSAC Member, Staff Recognition Luncheon member, member academic calendar committee, member traffic appeals committee, volunteer for Majors Fair, volunteer for Summerfest.

Philanthropy

Over $160,000 of philanthropic support in period 2012-2014.

Major focus for funds:

Argast Family Imaging and Analysis Laboratory (AFIAL).

Sunderman Inukshuk including artist commission, design, site work, installation in Geogarden and reception for about 100 guests.
Gildner, 2014, "50 for 50", a 50 km run trail run in December to raise money to assist student on field trips.

**Curriculum Reorganization and Development**

2012, Streamlined and implemented curricular changes in BA and BS to reduce obstacles to completion of major.

2012/13, Submitted 11 courses to the General Education Program. Implementing courses as schedule allows. Diversity of offering to assist in moving students efficiently through gen ed requirements in area 4 and 6.

2013/14, Created six videos available on-line to provide a common curriculum for the Geosciences General Education Program including dual credit partners.

2013/14 Created an on-line quiz to provide a common assessment tool for all Geosciences courses in General Education Courses in area 4, including dual credit partners.

**Other**

2013, Sunderman memorial field trip to Poe Quarry for faculty, alums and majors. First time alums met for field work in many years.

2014, Luncheon and program for MAC advisors to make them better aware of career opportunities in major.

Sigma Gamma Epsilon (SGE) conducts yearly initiation ceremony and reception for initiates.

**Question:** Other Accomplishments - Please list any other significant accomplishments from the last three years that do not align with Plan 2020.

3. **Significant accomplishments from 2012-14 not listed above.**

   None
GEOS Geosciences

Criterion: #3: Accreditations - Program specific accreditation and status

Question: Accreditations - What program-specific accreditations and status do you have, if any?

4.
None

Question: Constraints/Benefits - How do these accreditations constrain or benefit the work of your unit, if applicable?

N/A

Criterion: #4: Laws and Mandates - Federal and state laws or mandates that your unit addresses

Question: Federal and State Laws - What federal and/or state laws or mandates do you address, if any?

5.
None

Question: Constraints/Benefits - How do these federal and state laws or mandates constrain or benefit the work of your unit?

N/A

Criterion: #5: Inefficiencies - Activities that you spend resources on inefficiently or in ways that do not support the mission.

Question: Inefficient use of resources - On what activities, if any, do you spend resources (money, time, people, etc.) inefficiently or in ways that do not support the mission of your unit or the university? List as many as apply.
Over the last two decades, the IPFW infrastructure devoted to program review and assessment (both of individual faculty members and of academic units) has metastasized. What was once an occasional, useful self-examination of departmental goals and activities has become a continuous, ever-expanding array of surveys, evaluations, document creation, and other reports imposed on academic unit by the university administration. Arguably the amount of time spent in demonstrating and documenting the accomplishments and successes in teaching and scholarship of individual faculty members and programs (what might be characterized as metaproductivity) is approaching that spent in the productive activities themselves. Failure to comply with these demands, unfortunately, is perceived by academic units as endangering their resources and staffing, and in extreme cases their very existence.

**Criterion:**  #6: IR and Budget Review - Review of your department profile and budget

**Question:** Contextualize IR data - Upon review of your IR Department Profile (for academic units) and FY 14-15 Budget information, are there any data you want to correct or contextualize? To view your profile or budget visit the Office of Institutional Effectiveness website: http://www.ipfw.edu/offices/ir/profiles/

7.

No

**Criterion:**  #7: Goal One - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Task Force:**
1. Comment on the specificity of the goal:

Aligns with I.A.1, I.A.2., I.E.1, II.A., and II.B.

High Priority

2. Comment on the goal's measures:

Actions: Stated ‘Establish funding guidelines for students attending meetings’.

Metrics: To establish percentile guidelines for majors and faculty in research.

Comments: Unclear as to what was an action or a metric.

3. Comment on the unit’s ability to achieve the goal (include a consideration of the departmental profile and budget data):

Stated no. Need cooperation of COAS, ESP and Student Government to seek student funding for research. Will need administration to decide on lines of retiring faculty.

4. Comment on the goal’s relevance:

Seems relevant to student and faculty success contingent on funding

5. Comment on the timeline of the goal:

Stated academic year 2015-2016

Possible opportunities for collaboration or suggestions for addressing a gap:

As stated by the unit, COAS, RESP and Student Government

**Question:** Unit Goal - What is your unit goal?

Enhance our supportive environment for student and faculty research.

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write “NA” or clarify.
I.A.1 Improve quality and fidelity of assessment process of degree/certificate programs, General Education program, and Baccalaureate Framework with dedicated resources.

(Adding a component to department's assessment process)

I.A.2 Use assessment data to improve student learning.

(Research requires synthesis of skills across multiple disciplines. Research presentations by students provide a basis for evaluating mastery of the discipline-related knowledge domains.)

I.E.1 Identify and develop signature programs that respond to regional needs, build on faculty expertise, and uniquely distinguish IPFW from other institutions.

(All students presenting research before graduation is a signature attribute.)

II.A. Project future regional, national, and international demand for research and collaboration.

(Geosciences is a high priority STEM discipline.)

II.B. Promote mentoring relationships between faculty and students engaged in creation, integration, and application of knowledge. (All students in mentored research before graduation.)

**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

High

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

Establish funding guidelines for students attending meetings.

Establish policy for student access to department's research equipment.

Improve format of G410 sequence.

Incorporate G410 evaluations into the departmental assessment plan
**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?

100% of all majors publically present research before graduation.

50% of majors publically present research at off-campus venues before graduation.

100% of untenured TT faculty show adequate advancement towards tenure as evaluated by annual review of ad hoc committee for professional matters.

100% of tenured faculty show evidence in annual report to chair of scholarly activity or significant engagement outside the class room aligning with department and university goals.

**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

Goal Yes. Actions No.

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

Will require cooperation from COAS, RESP and StuGov to create funding guidelines.

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

Department is losing 20% if its T/TT faculty due to failure to receive authorization to search for a retirement replacement. This makes significant, high impact, one-on-one interactions with students in research/mentoring relationships a greater challenge than currently the case.

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?

Listed actions can be completed during 2015/16 academic year.

**Criterion:** #8: Goal Two - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Task Force:**
1. Comment on the specificity of the goal:

Aligns with I.B.1, I.B.4, I.B.5, I.M.1

High Priority

2. Comment on the goal's measures:

Actions: Active recruitment of students from 100 level courses and collegiate-connection partners, improved website, and online classes.

Metrics: Recruitment and retention data from 100 and 200 level classes.

Comments: Why isn’t it being done now?

3. Comment on the unit’s ability to achieve the goal (include a consideration of the departmental profile and budget data):

Stated no. Need conversion of DCS faculty to COAS faculty and release time for collegiate connection contact.

4. Comment on the goal’s relevance:

Relevant to goals I.B.1, I.B.4, I.B.5, I.M.1

5. Comment on the timeline of the goal:

Stated immediate if administrative decides on retirement lines.

Possible opportunities for collaboration or suggestions for addressing a gap:

**Question:** Unit Goal - What is your unit goal?

Improve recruitment and retention of majors through emphasis on quality of introductory and early-major (to the 200-level) courses.

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write “NA” or clarify.
I.B 1, I.B.4 and I.B.5 (Improving student experiences at the intro-level is essential to engage students in gateway courses. Field experience at the intro level could be transformative.)

I.B.1. Increase opportunities for engaged and experiential learning including service learning and internship programs.

I.B.4. Expand use of high-impact instructional and advising interventions.

I.B.5. Transform the concept of the college classroom and the delivery of education.

I.M.1 Retention and graduation rate (Better pre- and early-program experiences help recruit students to campus and retain in program.

**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

High.

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

- More time spent with dual credit partners in the high schools.
- Arrange yearly (or possibly twice yearly) on-campus program for dual credit students.
- Make individual contact with all guidance councilors in area.
- Experiment with novel ways to organize intro-level courses.
- Invest in materials and infrastructure at the 100- and 200 level.
- Average eight on-line/weekend college offerings every calendar year.
- Invest in public display of geomaterials and information.
- Improve web site.

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?
Recruitment of students into (and majors from) G103 compared to other intro courses. (G103 is a 100-level experiment in format and emphasis.)

Recruitment of students to major directly from dual-credit partners.

Acquisition of data about student recruitment to, success in, and retention from threshold-concept courses: G211 (Paleontology), G221 (Mineralogy) and G222 (Petrology).

**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

No.

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

Department needs to convert the DCS based CL to COAS, and needs to provide a 3 credit release to enable outreach to dual credit partners. Without the release we will not be able to adequately expand contact time with dual credit partners.

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

Difficulty getting information to students not familiar with our program.

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?

Immediate implementation. Continuing effort. Some things cannot be implemented without new faculty resources. Loss of 20% of T/TT faculty prevents extensive outreach to schools because of our time-resource limitations. Numbers require multi-year data to establish statistically valid trends.

**Criterion:** #9: Goal Three - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Task Force:**
1. Comment on the specificity of the goal:

Align with I.B.1, I.E.1, III.A., I.E.3, and I.E.4

High Priority

2. Comment on the goal's measures:

Actions: Create internships, hire new faculty in GeoMaterials, and promote student/faculty participation in state conferences.

Metrics: One internship created in 2015/16. Participation of students at state conferences.

Comments: Goal seems reasonable.

3. Comment on the unit's ability to achieve the goal (include a consideration of the departmental profile and budget data):

Stated no. Need to fill open line with local geology specialist.

Challenges will be the cooperation of persons outside unit (businesses, administrators, etc.)

4. Comment on the goal's relevance:

Relevant to I.B.1, I.E.1, III.A., I.E.3, and I.E.4

5. Comment on the timeline of the goal:

Immediate contingent on faculty line.

Possible opportunities for collaboration or suggestions for addressing a gap:

**Question:** Unit Goal - What is your unit goal?

Expand collaboration with geology- and materials-sciences industries.

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write “NA” or clarify.
## GEOS Geosciences

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<tr>
<th>I.B.1 Increase opportunities for engaged and experiential learning including service learning and internship programs.</th>
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<td>(Internships.)</td>
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**I.E.1.** Identify and develop signature programs that respond to regional needs, build on faculty expertise, and uniquely distinguish IPFW from other institutions.

**III.A.** Expand meaningful collaborations and research opportunities with regional, national, and global partners.

(AFIAL Mission statement at [http://www.geosci.ipfw.edu/afial/index.html](http://www.geosci.ipfw.edu/afial/index.html))

**I.E.3.** Build and strengthen relationships with regional partners to increase research and scholarly collaborations in signature programs.

**I.E.4.** Promote majors and programs with strong job placement opportunities in the region and beyond.

(Strong employment potential)

**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

High.

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

Create internships

- Hire new professor who works with local GeoMaterials.
- Seek new clients for Argast Family Imaging and Analysis Lab (AFIAL).
- Promote Stu/Fac participation at meetings of Indiana Academy of Science.
- Promote Stu/Fac participation at meetings of the Association of Professional Geologists of Indiana and other regional associations.

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?

Success at creating at least one internship in 2015/16.

Continued service to regional AFIAL clients measured by dollar receipts and number of clients.

Participation metrics of student participation in state-wide meetings with heavy participation of working geoscientists.
**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

No.

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

Department must fill vacant faculty position with specialist in local geology. The conversion from paleontologist to Quaternary geologist is a key component for reaching-out to local consultants and governments. Lacking an individual in this position thwarts most significant initiatives.

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

Requires action by individuals, businesses and administrators outside the department.

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?


**Criterion:** #10: Goal Four - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Task Force:**
1. Comment on the specificity of the goal:

Aligns with IV.1
High Priority

2. Comment on the goal's measures:

Actions: Create training rubric through on and off campus training.

Metrics: Measure how many training courses taken.

3. Comment on the unit's ability to achieve the goal (include a consideration of the departmental t

Stated resources are available.

4. Comment on the goal's relevance:

Relevant to IV.1

5. Comment on the timeline of the goal:

Stated immediate implementation.

Possible opportunities for collaboration or suggestions for addressing a gap:

**Question:** Unit Goal - What is your unit goal?

Assist secretarial and technical staff with their contribution to mission.

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write "NA" or clarify.

IV.A.1

Rationalize, prioritize, and establish a set of appropriate performance metrics for all academic and non-academic units.

**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

High

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?
Require on-campus training as appropriate for position.

Encourage off-campus training, or on-campus coursework if desired.

Encourage committee work outside the department.

Work with staff to develop a set of quantifiable performance metrics.

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?

- Training attended.
- Courses taken.
- Committees served.
- Goals met.

**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

Yes.

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

N/A

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

None.

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?

Immediate implementation. Continuing effort.
#11: Goal Five - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Task Force:**

1. Comment on the specificity of the goal:

   Aligns with I.A.2 and I.C.6

   Medium Priority

2. Comment on the goal's measures:

   Actions: Collect enrollment data from class following G331 course.

   Metrics: Measure student evaluations of G334 and G331 courses and added cost of class.

   Comments: Unclear as to added costs.

3. Comment on the unit's ability to achieve the goal (include a consideration of the departmental profile and budget data):

   Stated resources available.

   Challenges stated: Faculty to team teach course and administration support for added cost of course.

4. Comment on the goal’s relevance:

   Relevant to goals I.A.2 and I.C.6

5. Comment on the timeline of the goal:

   Stated review of course will end Spring 2016.

   Possible opportunities for collaboration or suggestions for addressing a gap:

**Question:** Unit Goal - What is your unit goal?

Determine future of G331 (Principles of Sedimentation/Field Trip to the Bahamas) as a regular offering in Geosciences.

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write “NA” or clarify.

I.A.2 Use assessment data to improve student learning.

(Uses assessment data to gauge effectiveness of the G331 course.)

I.C.6 Increase support programs for international study for domestic students. (G331 involves field study in the Bahamas.)
**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

Medium

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

Committee review/recommendation in late Fall, 2015 or early spring, 2016. (Need to gain enrollment data for G334 (sedimentology and Stratigraphy) which will next be taught in spring, 2016 to evaluate impact on related course.)

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?

Student evaluations of G334 and G331.

Impacts of G331 enrollment on G334.

Cost analysis. Is the added cost of international travel and negative impact on G334 enrollment worth teaching a unique and high-content-value course?

**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

Yes.

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

N/A

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

Faculty availability in Biology and Geology to teach the G331 course. (G331 has been co-scheduled with a Biology course.)

Willingness of administrators to support a unique course that costs more than the minimal amount in direct and indirect costs.

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?

Review will be finished in Spring, 2016.
#12: Goal Six - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Question:** Unit Goal - What is your unit goal?

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write "NA" or clarify.

**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?

**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?

#13: Goal Seven - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.
**Question:** Unit Goal - What is your unit goal?

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write “NA” or clarify.

**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?

**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?

**Criterion:** #14: Goal Eight - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Question:** Unit Goal - What is your unit goal?

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write “NA” or clarify.
**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?

**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?

**Criterion:** #15: Goal Nine - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Question:** Unit Goal - What is your unit goal?

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write “NA” or clarify.

**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.
**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?

**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?

**Criterion:** #16: Goal Ten - In this criterion, you will identify your unit goals and tell us how they align to Plan 2020, how they are measured, and what resources you need to meet them.

**Question:** Unit Goal - What is your unit goal?

**Question:** IPFW Goal - What 2020 goal(s) does this unit goal align with? List as many as apply. If it does not align, you may write “NA” or clarify.

**Question:** Priority Level - Is the unit goal high, medium, or low priority? Limit your high-priority unit goals to 3 to 5.

**Question:** Actions - What action(s) does your unit plan to take to support this unit goal?

**Question:** Metrics - With what metrics will you assess progress toward accomplishing this unit goal on an annual basis?
**Question:** Resources - Are you able to accomplish this unit goal with your current resources?

**Question:** Needed Resources - If you don’t have enough resources, what additional resources do you need to accomplish this unit goal?

**Question:** Challenges - What challenges, other than financial resources, might affect your progress toward accomplishing this unit goal?

**Question:** Timeline - If achieving this unit goal will take longer than one year, what is your timeline for implementing and accomplishing it?