

## New College of Florida Board of Trustees Wednesday, April 26, at 2:00 – 4:00 pm Sudakoff Conference Center 5845 General Dougher Pl, Sarasota, FL 34243

Virtual viewing link:

https://www.youtube.com/@NewCollegeofFL

## **BOT Meeting Agenda**

- 1. Prayer
- 2. Call to Order
  - Roll Call, Establish Quorum, Confirm Public Notice of Meeting
- 3. Pledge of Allegiance
- 4. Call for Public Comment
- 5. Consent Agenda

## **ACTION ITEMS**

- Approve Minutes of the February 28, 2023, BOT Meeting
- Approve Reviewed 2021-22 Performance Based Funding Data Integrity Audit and Data Integrity Certification
- Approval of Regulation Amendments Regulation 3-1002(6): Tuition and Fees
- Approval of Regulation Amendments Regulation 4-2005: Degree Program Planning and Approval
- Approval of Regulation Amendments Regulation 4-6001: Institutes and Centers

## **INFORMATIONAL ITEM**

• Alternative Admissions Option

# BOARD MOTION: APPROVAL OF CONSENT AGENDA ACTION ITEMS AND ACCEPTANCE OF CONSENT INFORMATIONAL ITEMS

- 6. President's Report Richard Corcoran, Interim President
- 7. 2023 Accountability Plan Brad Thiessen, Interim Provost
- 8. Changing Institutional Accreditors Brad Thiessen, Interim Provost

## 9. Academic, Student and External Affairs Committee

• <u>Determination of Tenure for Dr. Rebecca Black, Dr. Lin Jiang, Dr. Nassima Neggaz, Dr. Gerardo Toro-Farmer, Dr. Hugo Viera-Vargas</u>

## 10. Adjournment

## New College of Florida Board of Trustees Sudakoff Conference Center Draft Minutes for February 28, 2023

## **Prayer**

Pastor Carl Dixon, Calvary Chapel Church conducted the prayer.

## Pledge of Allegiance

Joshua Broyhill, New College Student, called for the pledge.

#### Call to Order

The meeting was called to order at 1:10 p.m. and a quorum was established.

**Trustees Present**: Debra A. Jenks (Chair), Ron Christaldi (Vice Chair), Ryan Anderson, Mark Bauerlein, Lance Karp, Grace Keenan, Charles Kesler, Matthew Lepinski, Sarah Mackie, Christopher Rufo, Mary Ruiz, Matthew Spalding, and Eddie Speir

## **Acknowledgment of Notice of Meeting**

Associate Vice President of Government Relations Christie Fitz-Patrick confirmed the meeting had been duly noticed.

#### **Board of Governors Presentation**

Governor Alan Levine presented the Board of Governors information and received questions from the Board.

#### **Call for Public Comment**

Public comment process ensued. The following members of the public provided comments: Sonia Howman, Mike Sanderson, David Gillman, Liz Leininger, David Land, Benjamin Casey, Betsy Braden, Jeanine Ashforth, Tamara Solum, Alisa Mitchell, Dani Johnson, Rev. Dr. John C. Dorhauer, Sam Sharf, Ruth Beltran, Kristen Miller, Jeremy Bicha, Sara Engels, Cynthia Shellabarger, Lisa Mejia (written provided), Jenny Wright, Olivia Paré, Jens Albiez, Joyce White, Shari Gorman, Debra Polito, Elizabeth Albiez, Rocio Ramirez Castro, Brendan Hersh, Diego Villada, Michael Penney, Wendy Armstrong, Alaska Miller, Tracy Fero, Eliana Salzhauer, Joshua Epstein, Matthew Senecal, Chloe Foder, Carol Lerner, Alana Armstrong-Penney, Arthur Miller, Ph.D., Robin Williams

## **Consent Agenda**

The consent agenda was presented and a request was made by Chair Jenks that it be approved.

A motion to approve the consent agenda was made, seconded and discussion ensued on approving the minutes of the January 25, BOT Meeting and approving the minutes of the January 31, 2023, BOT Meeting. VC Christaldi asked whether the January 31 minutes provided to the Board included his changes as emailed. AVP Fitz-Patrick confirmed. Trustee Ruiz requested her Chair comments be added to the meeting minutes for January 31 and then questioned whether the January 25 minutes needed to be approved by the board since it was not an official meeting of the full board. After clarification from legal counsel was received it was determined the minutes were just recorded for a record of the public meeting. It was removed from the consent agenda. Following discussion, the consent agenda was approved unanimously.

Consent agenda action items approved were as follows:

- Approve Minutes of the January 31, 2023, BOT meeting
- Approve Minutes of the February 13, 2023, Special BOT Meeting
- Approve Minutes of the February 21, 2023, Special BOT Meeting

Informational Items provided to the Board for their review as part of the Consent Agenda include:

Board of Trustees Committee Assignments

## **President's Report**

Interim President Richard Corcoran provided his remarks. After remarks were provided, Chair Jenks asked General Counsel Bill Galvano to confirm what is the oversight of the Board for direct-support organizations. GC Galvano relayed the oversight is fully at the discretion of the board. Chair Jenks stated to the board for them to keep their calendars open in case a meeting needed to be called in reference to the New College Foundation, Inc. in the coming weeks.

## Draft Policy on Implementation of Diversity, Equity and Inclusion Changes

Brad Thiessen, Chief of Staff presented the draft policy on the implementation of diversity, equity and inclusion changes and received questions from the Board.

Following discussion, a motion was made to authorize the Interim President to follow through on the steps made in item one inclusive of eliminating the Office of Outreach and Inclusive Excellence, and making other personnel decisions as necessary in support of all laws and regulations, seconded and approved with 10 voting yes and 3 voting no. A second motion was made to authorize the Interim President to amend Section 5.2.2.1 of the Faculty Handbook to eliminate the request for "a statement regarding the candidate's contribution to, or approach to achieving diversity," seconded and approved with 10 voting yes and 3 voting no.

## Status of the New College of Florida United Faculty of Florida Collective Bargaining Agreement

Chair Jenks stated, this item was deferred from the January 31 meeting to this meeting and she has taken discussion and consideration of the NCUFF Item off the Feb. 28th Board of Trustees agenda in accordance with legal guidance. Florida law requires that in conducting negotiations with the bargaining agent, the President or designee shall consult with and attempt to represent the views of the Board of Trustees. While the College's President and designated committee bargained in good faith with NCUFF, significant changes have occurred since the negotiations and tentative agreement on certain terms were reached. Accordingly, she directed New College's new Interim President Corcoran and the management committee to return to the bargaining table as quickly as possible after appropriate consultation. No action for the Board is needed at this time.

## **Updates to 2022-2023 Operating Budget**

Chair Jenks requested Vice President of Finance and Administration Chris Kinsley present the revised operating budget for fiscal year 2022-23. VP Kinsley provided an overview of the changes.

Following discussion, a motion was made to approve the revised operating budget for fiscal year 2022-23, seconded and approved unanimously.

## Adjournment

There being no other business, the meeting was adjourned 4:47 p.m.

Respectfully Submitted,

Christie Fitz-Patrick
AVP Government Relations and BOT Liaison



## **NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES**

Meeting Date: April 26, 2023

SUBJECT: Approve Reviewed 2021-22 Performance Based Funding Data Integrity Audit and Data Integrity Certification

## PROPOSED BOARD ACTION

Consider approval of required review of the 2021-22 Performance Based Funding Data Integrity Audit completed by Mauldin and Jenkins for the period from October 1, 2021 through September 30, 2022.

## BACKGROUND

University presidents and boards of trustees are to direct their Chief Audit Executives (CAE) to perform an audit of the university's processes that ensure the completeness, accuracy, and timeliness of data submissions to the Board of Governors. Audits are to be conducted in accordance with professional auditing standards and are to be submitted to the Board of Governors by March 1st each year.

Additionally, university presidents and boards of trustees are required to execute a Data Integrity Certification affirmatively certifying each representation. The audit results provide a basis for the president's and chair's certification.

## **Supporting Documentation:**

- Regulation 4.002
- CAE Summary of the Performance Based Funding Data Integrity Audit
- Mauldin & Jenkins Independent Accountant's Report
- Data Integrity Certification

## Facilitator(s)/Presenter(s):

Alexander G. Tzoumas, Chief Audit Executive/Chief Compliance Officer

## 4.002 State University System Chief Audit Executives

- (1) Each university shall have an office of chief audit executive as a point for coordination of and responsibility for activities that promote accountability, integrity, and efficiency in the operations of the university.
- (2) Each board of trustees shall establish a committee responsible for addressing audit, financial- and fraud-related compliance, controls, and investigative matters. For purposes of this regulation, this committee will be referred to as the audit and compliance committee. This committee shall have a charter approved by the board of trustees and reviewed at least every three (3) years for consistency with applicableBoard of Governors and university regulations, professional standards, and best practices. A copy of the approved charter and any subsequent changes shall be provided to the Board of Governors.
- (3) Each board of trustees shall adopt a charter which defines the duties and responsibilities of the office of chief audit executive. The charter shall be reviewed at least every three (3) years for consistency with applicable Board of Governors and university regulations, professional standards, and best practices. A copy of the approved charter and any subsequent changes shall be provided to the Board of Governors. At a minimum, the charter shall specify that the chief audit executive:
  - (a) Provide direction for, supervise, and coordinate audits and investigations which promote economy, efficiency, and effectiveness in the administration of university programs and operations including, but not limited to, auxiliary facilities and services, direct support organizations, and other component units.
  - (b) Conduct, supervise, or coordinate activities for the purpose of preventing and detecting fraud and abuse within university programs and operations including, but not limited to, auxiliary facilities and services, direct support organizations, and other component units.
  - (c) Address significant and credible allegations relating to waste, fraud, or financial mismanagement as provided in Board of Governors Regulation 4.001.
  - (d) Keep the president and board of trustees informed concerning significant and credible allegations and known occurrences of waste, fraud, mismanagement, abuses, and deficiencies relating to university programs and operations; recommend corrective actions; and report on the progress made in implementing corrective actions.
  - (e) Promote, in collaboration with other appropriate university officials, effective coordination between the university and the Florida Auditor General, federal auditors, accrediting bodies, and other governmental or oversight bodies.
  - (f) Review and make recommendations, as appropriate, concerning policies and regulations related to the university's programs and operations including, but not limited to, auxiliary facilities and services, direct support organizations, and other component units.

- (g) Communicate to the president and the board of trustees, at least annually, the office's plans and resource requirements, including significant changes, and the impact of resource limitations.
- (h) Provide training and outreach, to the extent practicable, designed to promote accountability and address topics such as fraud awareness, risk management, controls, and other related subject matter.
- (i) Coordinate or request audit, financial- and fraud-related compliance, controls, and investigative information or assistance as may be necessary from any university, federal, state, or local government entity.
- (j) Develop and maintain a quality assurance and improvement program for the office of chief audit executive.
- (k) Establish policies which articulate the steps for reporting and escalating matters of alleged misconduct, including criminal conduct, when there are reasonable grounds to believe such conduct has occurred.
- (l) Inform the board of trustees when contracting for specific instances of audit or investigative assistance.
- (4) The board of trustees must obtain Board of Governors' approval before outsourcing the chief audit executive's entire audit or investigative function.
- (5) Each board of trustees shall ensure that the university chief audit executive is organizationally independent and objective to perform the responsibilities of the position. The chief audit executive shall:
  - (a) Report functionally to the board of trustees and administratively to the president.
  - (b) Report routinely to the board of trustees on matters including significant risk exposures, control issues, fraud risks, governance issues, and other matters requested by the president and the board of trustees.
  - (c) Conduct and report on audits, investigations, and other inquiries free of actual or perceived impairment to the independence of the chief audit executive's office.
  - (d) Have timely access to any records, data, and other information in possession or control of the university including information reported to the university's hotline/helpline.
  - (e) Notify the chair of the board of trustees' audit committee or the president, as appropriate, of any unresolved restriction or barrier imposed by any individual on the scope of an inquiry, or the failure to provide access to necessary information or people for the purposes of such inquiry. The chief audit executive shall work with the board of trustees and university management to remedy scope or access limitations. If the university is not able to remedy such limitations, the chief audit executive shall timely notify the Board of Governors, through the OIGC, of any such restriction, barrier, or limitation.

- (6) In carrying out the auditing duties and responsibilities set forth in this regulation, each chief audit executive shall review and evaluate controls necessary to enhance and promote the accountability of the university. The chief audit executive shall perform or supervise audits and prepare reports of their findings, recommendations, and opinions. The scope and assignment of the audits shall be determined by the chief audit executive; however, the president and board of trustees may request the chief audit executive direct, perform, or supervise audit engagements.
  - (a) Audit engagements shall be performed in accordance with the *International Professional Practices Framework*, published by the Institute of Internal Auditors, Inc.; the *Government Auditing Standards*, published by the United States Government Accountability Office; and/or the *Information Systems Auditing Standards* published by ISACA. All audit reports shall describe the extent to which standards were followed.
  - (b) At the conclusion of each audit engagement, the chief audit executive shall prepare a report to communicate the audit results and action plans to the board of trustees and university management. A copy of the final audit report will be provided to the Board of Governors consistent with Board of Governors Regulation 1.001(6)(g).
  - (c) The chief audit executive shall monitor the disposition of results communicated to university management and determine whether corrective actions have been effectively implemented or that senior management or the board of trustees, as appropriate, has accepted the risk of not taking corrective action. If, in the chief audit executive's judgment, senior management or the board of trustees has chosen not to take corrective actions to address substantiated instances of waste, fraud, or financial mismanagement, then the chief audit executive shall timely notify the Board of Governors, through the OIGC.
  - (d) The chief audit executive shall develop audit plans based on the results of periodic risk assessments. The plans shall be submitted to the board of trustees for approval. A copy of approved audit plans will be provided to appropriate university management and the Board of Governors.
  - (e) The chief audit executive must develop and maintain a quality assurance and improvement program in accordance with professional audit standards. This program must include an external assessment conducted at least once every five (5) years. The external assessment report and any related improvement plans shall be presented to the board of trustees, with a copy provided to the Board of Governors.
- (7) Each chief audit executive shall initiate, conduct, supervise, or coordinate investigations that fall within the purview of the chief audit executive's office and be designated by their board of trustees as the employee to review statutory whistle-blower information and coordinate all activities of the university as required by the Florida Whistle-blower's Act. Investigative assignments shall be performed in

accordance with professional standards issued for the State University System. All final investigative reports shall be submitted to the appropriate action officials, board of trustees, and the Board of Governors if, in the chief audit executive's judgment, the allegations are determined to be significant and credible. Such reports shall be redacted to protect confidential information and the identity of individuals, when provided for by law.

(8) By September 30<sup>th</sup> of each year, the chief audit executive shall prepare a report summarizing the activities of the office for the preceding fiscal year. The report shall be provided to the president, board of trustees, and the Board of Governors.

Authority: Section 7(d), Art. IX, Fla. Const.; History: New 11-3-16.





**Date:** April 11, 2023

**To:** New College of Florida Board of Trustees

President Corcoran

From: Alexander G. Tzoumas, Chief Audit Executive / Chief Compliance Officer

**Subject:** Summary of the Performance Based Funding Data Integrity Audit

In accordance with the June 25, 2020 correspondence received from Board of Governors' Chairman Sydney Kitson, the New College of Florida must perform an annual Data Integrity Audit. The integrity of data provided to the Board of Governors by each State University System institution is critical to the performance-based funding decision-making process. The objective of the independent audit is to:

- 1) Confirm whether the process controls established by the College ensure the completeness, accuracy, and timeliness of data submissions to the Board of Governors that support performance funding metrics; and,
- 2) Provide an objective basis of support for the College's President and Board of Trustees' Chairman to sign the representations made in the Performance Based Funding Data Integrity Certification.

While the directive from Board of Governors' Chairman requires the performance of an annual audit, each respective university's Board of Trustees and Chief Audit Executive may set the audit scope and objectives. Since the previous audits found zero material data reporting exceptions, the Chief Audit Executive, in coordination with the Chairman of the Board of Trustee's Audit and Compliance Committee, Chief Financial Officer, and Board of Governor's Inspector General's Office, determined the objectives of the audit should remain the same as prior years but the scope could be modified such that all ten metrics would be audited every three years on a rotational basis. The scope of the 21-22 audit is detailed in the attached report prepared by Mauldin & Jenkins. Mauldin & Jenkins has performed the independent Performance Based Funding audit for the last five years.

## **Present Audit Exception**

The fiscal year (FY) 21-22 audit procedures performed by Mauldin and Jenkins to assist New College of Florida in determining the completeness, accuracy, and timeliness of Performance Funding Metrics data submission identified zero exceptions.

## **Previous Audit Exception**

The FY20-21 Performance Based Funding Data Integrity Audit identified one exception as detailed below.

## Exception

There was one immaterial exception identified in the audit as follows:

We identified seven (7) students who did not have the proper Student Class Level value in Banner. These students had a value of "U" (Upper Division Undergraduate") instead of an "L" (Lower Division Undergraduate.

## Management Response

Management provided the following explanation for the cause of the exception and the remediation efforts being made.

In October 2020, our Information Technology programmer inadvertently changed the reporting program of this data element in the Board of Governor (BOG) Student Instruction File (SIF) files, while modifying the reporting program to account for the Registrar's substantial change to the College's transfer credit policy. The change resulted in misclassifying some undergraduate students from ""L" (Lower Division Undergraduate) to "U" (Upper Division Undergraduate"). The change did not impact the New College of Florida performance funding reporting numbers. Our Information Technology office has corrected the reporting program since then and we will complete the resubmission of the BOG Student Instruction File (SIF) files for Fall 2020 and Spring 2021 by the end of February, 2022.

The FY 19-20 Performance Based Funding Data Integrity Audit procedures identified zero exceptions.

The FY 18-19 Audit noted one immaterial exception regarding the enrollment process of a Career Seminar and the effect on the calculation of Metric 1. The exception did not impact previous years funding disbursements and the Board of Governors was informed before funds were distributed for that year. The Board of Governors has since revised the calculation of Metric 1 by excluding post graduate enrollment in any SUS courses. The result is that the Career Seminar will no longer be included in the calculation of Metric 1.

## Conclusion

Based upon the work performed by Mauldin & Jenkins and the internal process controls confirmed to be in place and operating effectively, I have concluded the processes and procedures used to report the Performance Based Funding Data are functioning in a reliable manner to ensure in all material respects the completeness, accuracy, and timeliness of data submissions and meet Board of Governors' certification objectives.

Enc: Performance Based Data Integrity Agreed-Upon Procedures Audit dated September 30. 2021 with scope attachment

Performance Based Funding Data Integrity Certification Form Management's Representation Letter to Mauldin & Jenkins

# NEW COLLEGE OF FLORIDA INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES

**SEPTEMBER 30, 2022** 

# NEW COLLEGE OF FLORIDA INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES

## **SEPTEMBER 30, 2022**

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# INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES

Board of Trustees New College of Florida Sarasota, Florida 34243

We have performed the procedures enumerated below, which were agreed to by the Board of Trustees of New College of Florida (the "College"), solely to assist the College in determining whether the College has processes established to ensure the completeness, accuracy, and timeliness of data submissions to the Board of Governors (the "BOG") which support the Performance Funding Metrics of the College as of September 30, 2022. The College is responsible for all processes and procedures related to the complete, accurate and timely submission of data to the BOG.

New College of Florida has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of the College. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

## Our procedures and findings were as follows:

We reviewed the BOG submissions relating to the Performance Funding Metrics identified and published by the State University System of Florida (the "SUS") specific to the certification. See Attachment I for a listing of the submissions management selected for testing in the current year.

## a) Testing of data accuracy.

- Identify and evaluate data validity controls to ensure that data extracted from the primary systems of record are accurate and complete. This may include review of controls over code used to create the data submission. Review each measure's definition and calculation for the consistency of data submissions with the data definitions and guidance provided by the BOG.
- 2. As appropriate, select samples from data the College has submitted to the BOG for its Performance Funding Model. Vouch selected data to original source documents (this will most likely include the College's student and financial systems used to capture relevant information).
- 3. Evaluate the results of the testing and conclude on the completeness and accuracy of the submissions examined.

#### **Procedures Performed**

- For each metric and submission file identified, listed in Attachment I, we performed the following procedures for the specific metrics identified in the Performance Funding Metrics published by the SUS:
  - Obtained complete submission file for time period being tested;
  - Selected a sample size of thirty (30) data items, or other representative sample, to test for each file submission and each metric specific to the performance funding testing;
  - Verified data reported in the submission files specific to the metrics identified by the SUS agreed to the source system Banner;
  - Verified the data reported for each metric agreed with the SUDS data dictionary.
- To determine the completeness of the files being submitted, we performed the following procedures:
  - For each term and reported time frame, we obtained a file which was extracted from Banner and compared to submission files extracted by the Institutional Research and Analysis department. For each comparison we identified any person that was on the Banner report that was not in the file submission. We then selected a sample size based on the size of the file and errors returned and verified the student was properly omitted for the specific submission based on the current data definitions. Selected files and corresponding sample sizes are as follows:
    - 1. All students enrolled were compared to the Student Instruction Files (SIF) submitted. No differences were identified.
    - 2. All students who received Pell grants were compared to the Student Financial Aid (SFA) files submitted. No differences were identified.
    - 3. All students who had a degree awarded were compared to the Degrees Awarded (SIFD) files submitted. No differences were identified.

## **Findings**

No exceptions were identified as a result of applying these procedures.

- b) <u>Evaluate the veracity of the College Data Administrator's data submission statements that indicate, "I certify</u> that this file/data represents the position of this College for the term being reported."
  - 1. Interview the College Data Administrator to consider the reasonableness of the various coordination efforts with the Data Administrator's staff, the other Data Custodians' staff, BOG IRM, and other knowledgeable individuals which form the basis for personal and professional satisfaction that data submitted to the BOG is complete, accurate and submitted timely.
  - Inquire how the Data Administrator knows the key controls are in place and operating effectively. If not already done, consider verifying these key controls are in place and adequate to support the Data Administrator's assertions.

#### **Procedures Performed**

- Interviewed the following people who have significant responsibility for the data being reported and submitted to the BOG:
  - Director of Institutional Research and Assessment, Office of Institutional Research and Assessment:
  - Director of Administrative Computing, Office of Information Technology;
  - Controller, Business Office;
  - Registrar, Office of the Registrar;
  - Associate Dean of Enrollment Services and Director of Admissions, Office of Admissions and Financial Aid:
  - Director of Financial Aid, Office of Admissions and Financial Aid.
- Verified communication with the Institutional Research and Assessment department is on-going and clear to ensure accurate and timely data submission. Also, verified the Data Administrator understands the key controls specific to the metrics being tested and that they are functioning. This was performed through review of emails, various correspondence between departments, and discussions with each personnel.
- Verified with the Director of Institutional Research and Assessment their communication with the BOG and IRM to ensure data being submitted meets the data definitions. This was performed through review of correspondence and emails.

## **Findings**

No exceptions were identified as a result of applying these procedures.

We were engaged by New College of Florida to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestations standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on the processes and procedures for the complete, accurate and timely submission of data to the BOG. Additionally, the specific accuracy of the current year data submissions was not a part of our review. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We are required to be independent of the College and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to this engagement.

This report is intended solely for the information and use of New College of Florida's Board of Trustees and management and is not intended to be and should not be used by anyone other than these specified parties.

Mauldin & Jenkins, LLC

Bradenton, Florida January 20, 2023

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## NEW COLLEGE OF FLORIDA METRIC RELATED SUBMISSIONS OCTOBER 1, 2021 THROUGH SEPTEMBER 30, 2022

## **ATTACHMENT I**

Performance Based Funding Metrics Tested				
3	Cost to the Student Net Tuition and Fees for Resident Undergraduates per 120 Credit Hours			
4	Four-Year FTIC Graduation Rate			
9a Two-Year Graduation Rate for FCS Associate in Arts Transfer Student				
9b	Six-Year Graduation Rate for Students who are Awarded a Pell Grant in their First Year			

For the above metrics, the data elements specific to those metrics were tested in the below submission files.

Submissions Tested						
Due Date	Submission	Sample Tested				
10/13/2021	SFA - Student Financial Aid File	Annual 2020	20202021	60		
11/12/2021	SIF- Student Instruction File	Summer 2021	202105	1		
1/21/2022	SIF - Student Instruction File	Fall 2021	202108	30		
2/1/2022	RET - Retention File	Annual 2020	20202021	1		
6/15/2022	SIF - Student Instruction File	Spring 2022	202201	30		
6/29/2022	SIFD - Degrees Awarded	Spring 2022	202201	30		
9/23/2022	SIF- Student Instruction File	Summer 2022	202205	9		
N/A <sup>(1)</sup>	HTD - Hours to Degree	Annual 2021	20202021	30		

<sup>(1)</sup> NCF used to be exempt for the HTD submission and still does not submit a traditional HTD file. The BOG accepts a simplified version of the HTD file from NCF that does not have a due date.



# Data Integrity Certification March 2023

In accordance with Board of Governors Regulation 5.001(8), university presidents and boards of trustees are to review, accept, and use the annual data integrity audit to verify the data submitted for implementing the Performance-based Funding model complies with the data definitions established by the Board of Governors.

Given the importance of submitting accurate and reliable data, boards of trustees for those universities designated as preeminent or emerging preeminent are also asked to review, accept, and use the annual data integrity audit of those metrics to verify the data submitted complies with the data definitions established by the Board of Governors.

**Applicable Board of Governors Regulations and Florida Statutes:** Regulations 1.001(3)(f), 3.007, and 5.001; Sections 1.001.706, 1001.7065, and 1001.92, Florida Statutes

**Instructions:** To complete this certification, university presidents and boards of trustees are to review each representation in the section below and confirm compliance by signing in the appropriate spaces provided at the bottom of the form. Should there be an exception to any of the representations, please describe the exception in the space provided.

Once completed and signed, convert the document to a PDF and ensure it is ADA compliant. Then submit it via the Chief Audit Executives Reports System (CAERS) by the close of business on March 1, 2023.

## **University Name: New College of Florida**

## **Data Integrity Certification Representations:**

- I am responsible for establishing and maintaining, and have established and maintained, effective internal controls and monitoring over my university's collection and reporting of data submitted to the Board of Governors Office which will be used by the Board of Governors in Performance-based Funding decision-making and Preeminence or Emerging-preeminence Status.
- 2. In accordance with Board of Governors Regulation 1.001(3)(f), my Board of Trustees has required that I maintain an effective information system to provide accurate, timely, and cost-effective information about the university, and shall require that all data and reporting requirements of the Board of Governors are met.
- 3. In accordance with Board of Governors Regulation 3.007, my university provided accurate data to the Board of Governors Office.

## Data Integrity Certification, March 2023

- 4. In accordance with Board of Governors Regulation 3.007, I have tasked my Data Administrator to ensure the data file (prior to submission) is consistent with the criteria established by the Board of Governors. The due diligence includes performing tests on the file using applications, processes, and data definitions provided by the Board Office. A written explanation of any identified critical errors was included with the file submission.
- 5. In accordance with Board of Governors Regulation 3.007, my Data Administrator has submitted data files to the Board of Governors Office in accordance with the specified schedule.
- 6. I am responsible for taking timely and appropriate preventive/ corrective actions for deficiencies noted through reviews, audits, and investigations.
- 7. I recognize that Board of Governors' and statutory requirements for the use of data related to the Performance-based Funding initiative and Preeminence or Emerging-preeminence status consideration will drive university policy on a wide range of university operations from admissions through graduation. I certify that university policy changes and decisions impacting data used for these purposes have been made to bring the university's operations and practices in line with State University System Strategic Plan goals and have not been made for the purposes of artificially inflating the related metrics.
- 8. I certify that I agreed to the scope of work for the Performance-based Funding Data Integrity Audit and the Preeminence or Emerging-preeminence Data Integrity Audit (if applicable) conducted by my chief audit executive.
- 9. In accordance with section 1001.706, Florida Statutes, I certify that the audit conducted verified that the data submitted pursuant to sections 1001.7065 and 1001.92, Florida Statutes [regarding Preeminence and Performance-based Funding, respectively], complies with the data definitions established by the Board of Governors.

Exceptions to Note: None

## Data Integrity Certification, March 2023

## **Data Integrity Certification Representations, Signatures:**

I certify that all information provided as part of the Board of Governors Data Integrity Certification for Performance-based Funding and Preeminence or Emerging-preeminence status (if applicable) is true and correct to the best of my knowledge; and I understand that any unsubstantiated, false, misleading, or withheld information relating to these statements render this certification void. My signature below acknowledges that I have read and understand these statements. I certify that this information will be reported to the board of trustees and the Board of Governors.

Certification:	University President	Date: <u>1/23/23</u>
and Preemin	<u> </u>	Certification for Performance-based Funding (if applicable) has been approved by the the best of my knowledge.
Certification:	Many Ruis University Board of Trustees Chair	Date: <u>1/23/23</u>

## **NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES**

Meeting Date: April 26, 2023

SUBJECT: Revised Regulation 3.1002 Tuition and Fees

## PROPOSED BOARD ACTION

Consider approval of amendments to New College of Florida Regulation 3.1002 *Tuition and Fees*.

## **BACKGROUND INFORMATION**

As Florida's premier honors college, both first year and second year students (freshmen and sophomores) are required to live on campus and purchase a meal plan pursuant to New College of Florida Regulation 6-3002 Residency Requirement.

The Board of Trustees increased meal plan rates for the Fall 2021-22 Fiscal Year. The proposed change to the regulation increases rates by 25%, or from \$1528 to \$1910 per semester. The amount of the increase will be covered for Fiscal Year 23-24 by a one-time meal plan scholarship. <sup>i</sup> This increase will allow the College to address 1) Food and labor cost inflation; 2) Improvements to the meal plan. Proposed improvements include, but are not limited to:

- Adding a baker
- Having the Boar's Head be open during the January ISP period
- Adding "Grab and Go" options on the Bayfront campus

This is the 10<sup>th</sup> and final year of the current contract with Metz Culinary Management, which will require New College to go out to bid for a new vendor or stay with Metz. At this point, the base "All You Care to Eat" Residential Meal Plan, priced at \$1,528 per semester, is by far the lowest in the state. The proposed increase will continue to maintain New College as lowest in the state at \$1910 per semester. Here is a sampling of other Florida school's rates for comparable plans:

Florida Gulf Coast University	\$2,277
University of Florida	\$2,300
Florida State University	\$2,574
Eckerd College	\$3,304
Ringling College	\$3,370

All students must purchase the base meal plan; however, off campus students may satisfy this requirement by choosing the "Commuter 25" block plan. The Declining Balance plan, which is currently used by approximately 35 students, or less than 5% of all students, would be eliminated. The existing and proposed regulatory language is as follows

## **EXISTING REGULATION LANGUAGE**

## 3.1002 (6) Tuition and Fees

(6) Meal Plan Rates. All meal plan contracts are inclusive of Fall and Spring Terms.

Base Meal Plan	Fall		Spring		Total		ISP	
Residential	S	1,528	S	1,528	S	3,056	S	486
Commuter 25 Block	S	425	S	425	S	850		
Commuter 50 Block	s	600	s	600	s	1,200		
Commuter 100 Block	5	900	s	900	s	1,800		

Students may increase their buying power above the mandatory base rates through the purchase of supplementary meal plans.

Fees include buying power in the dining hall and sales tax, if applicable

## TEXT OF PROPOSED REGULATION AMENDMENT

The full text of the proposed regulation amendment is set out following this notice. Strikethrough indicates deletion; <u>Underline</u> indicates addition.

3-1002 (6) Tuition and Fees Schedule (Strike All Existing, and Replace with)

## (6) Meal Plan Rates

The per term Meal Plan Rate for 2023/2024 for residential students shall be \$1,910, with the ISP term rate being \$608. Off campus students are required to purchase either 1) A Commuter Meal Plan or the 2) A Residential Meal Plan. The ISP Meal Plan optional for commuter students, students who have fulfilled all mandatory ISPs, and for students who have been approved for an off-campus ISP.

The President is authorized to approve all meal plan alternative rates, including commuter plans, the stand-alone ISP meal plan rate, employee plans, and visitor plans.

**Supporting Documentation Included: Regulation 3.1002** 

Facilitators/Presenters: Vice President for Finance and Administration, Chris Kinsley

<sup>&</sup>lt;sup>i</sup> The total of all scholarships, including the meal plan scholarship, may not exceed the total cost of attendance.

## **NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES**

Meeting Date: April 26, 2023

SUBJECT: Revised Regulation 4-2005 Degree Program Planning and Approval

## PROPOSED BOARD ACTION

Consider approval of amendments to New College of Florida Regulation 4-2005 *Degree Program Planning and Approval*. The amendments align the regulation with BOG Regulation 8.011 *Authorization of New Academic Degree Programs and Other Curricular Offerings*.

## **BACKGROUND**

On June 30, 2022, the Florida Board of Governors amended Regulation 8.011 (*Authorization of New Academic Degree Programs and Other Curricular Offerings*) to include procedures for authorizing certificate programs, program minors, and program concentrations, tracks, and areas of emphasis. Section (7) of this updated BOG Regulation states:

Each university board of trustees shall ensure that the university has policies consistent with this regulation and applicable accreditation standards for the approval, implementation, and review of other types of academic curricular offerings as defined in sections (7)(a)-(d) of this regulation. Copies of each university's policies or regulations for approving other academic curricular offerings shall be provided to the Board of Governors' office.

The proposed amendments would put us in compliance with this BOG regulation:

- Section (1): A purpose statement was added
- Section (2): Definitions were added to align with definitions from the BOG regulation. As required by the BOG regulation, New College terminology is identified (e.g., program majors are equivalent to Areas of Concentration)
- Section (3): The degree program authorization process was updated to align with BOG Regulation 8.011. One additional step was added in (3)(c): new degree program proposals shall be shared with the Institutional Accreditation Liaison to determine if the program would result in a substantive change. This addition aligns with BOG Regulation 8.011(7).
- Section (4): As required by BOG Regulation 8.011(7), a process for authorizing other academic curricular offerings was added. The process for program majors (AOCs) and certificate programs mirrors the process outlined in Appendix 7 of the Faculty Handbook (*Approval of New Areas of Concentration and Certificate Programs*). An expedited process to authorize minors (secondary fields) or program tracks was added in Section (4)(b).

**Supporting Documentation: Regulation 4-2005** 

Facilitators/Presenters: Dr. Brad Thiessen, Interim Provost

Other Support Documents Available: N/A

## **CHAPTER 4 - Academic Affairs**

## 4-2005 Degree Program and Other Curricular Offerings Planning and Approval

(1) This regulation establishes criteria and administrative processes to establish new academic programs and other curricular offerings that are of the highest quality and aligned with the Florida Board of Governors (BOG) and New College of Florida (NCF) strategic plans.

## (2) Definitions

- (a) Degree program: An organized curriculum leading to a degree in an area of study assigned a Classification of Instructional Programs (CIP) code by the National Center for Educational Statistics or as demonstrated by the existence of similar degree programs at other colleges and universities. Each degree program shall have designated faculty effort and instructional resources and shall be assigned a CIP code and included in the State University System Academic Degree Program Inventory. Each degree program shall include at least one program major as defined in paragraph (2)(b) of this regulation. Examples of degree programs at NCF include Liberal Arts (CIP 24.0199) and Biological and Physical Sciences (CIP 30.0101).
- (b) Program major: An organized curriculum offered as part or all of an existing or proposed degree program. A program major shall be reasonably associated with the degree program under which it is offered and shall share core courses with all other majors within the same degree program. These core courses shall not include common prerequisites as defined in Florida Statute 1007.25. Although the program major and degree program names may be identical in some cases, only the degree program shall be assigned a CIP code and included in the SUS Academic Degree Program Inventory. NCF refers to program majors as "Areas of Concentration" (AOCs). Examples of AOCs include Art (offered under the Liberal Arts degree program) and Chemistry (offered under the Biological and Physical Sciences degree program).
- (c) Program concentration, Area of Emphasis, Track, or similar curricular offering: Any organized curriculum offered as part of a program major that enhances or complements the degree program in a manner that leads to specific educational or occupational goals. The number of credit hours in a program concentration, area of emphasis, track, or similar curricular offering shall not equal or exceed the number of credit hours established for the program major at the same degree level. Example of tracks at NCF include the Area Studies, Systemic, and Issue tracks within the International & Area Studies AOC (program major) housed within the International/Globalization Studies degree program (CIP 30.2001).
- (d) Program minor: Any organized curriculum, independent of the program major, which leads to the completion of specific educational or occupational goals. Program minors are typically optional and may or may not appear on the student's transcript or credential. NCF refers to program minors as "Secondary Fields."
- (e) College credit certificate program: An organized curriculum of college credit courses offered as a distinct area of study that leads to specific educational or occupational goals and for which the university awards a certificate, diploma, or similar form of recognition upon completion. College credit certificate programs may consist of courses that are part of a degree program or distinct courses that are created outside any degree program. Examples of college credit certificate programs at NCF include the Innovative Digital Media certificate and the Geographic Information Systems certificate.

- (f) Non-college credit certificate: An organized curriculum of study of any length that is offered for non-college credit (as measured through clock hours, continuing education units, competency exams, etc.) that leads to specific educational or occupational goals and for which the College awards a certificate or diploma upon completion.
- (3) Process for new degree program authorization.
  - (a) The Provost, in consultation with the faculty, will determine new degree programs to explore for implementation over the period covered by the university College's strategic plan and the university workannual accountability plan. The Provost will choose to direct development of a new academic degree program pre-proposal, which will be submitted for review to the academic program coordination workgroup established by the State University System CAVP (Council of Academic Vice Presidents), pursuant to Florida Board of Governors Regulation 8.004. Proposals to explore implementation of a new degree program can be initiated by either groups of faculty or the Provost. The Provost will determine whether and when to include exploration of new programs in the New College of Florida work plan. Proposals for exploration must be consistent with the Strategic Plan for New College of Florida.
  - (b) Following the review by the CAVP academic program coordination workgroup, the Provost will determine whether and when to include the proposed degree program in the one-year category on the College's annual accountability plan. The Provost will then determine whether to direct the development of a new degree program proposal. The proposal, which adopts the common State University System new degree proposal format, shall address the following criteria:
    - i. Institutional and State-Level Accountability
      - 1. Program goals are aligned with SUS strategic plan goals, NCF's mission, and NCF's strategic planning goals. Program goals relate to institutional strengths, and the program is consistent with the program list provided in NCF's annual accountability plan.
      - 2. There is a need for more individuals to be educated in the program. Estimate the headcount and full-time equivalent enrollment in the program, and indicate steps to be taken to achieve a diverse student body. Consider whether similar programs are offered at other postsecondary institutions in Florida and what impact, if any, such programs may have on the proposed program.
      - 3. Identify programs with a substantially similar curriculum at private or public state universities in Florida and investigate the potential impact on those programs. Document any discussions on opportunities for collaboration with the affected university and substantiate the need for duplication. If a program with a substantially similar curriculum exists at a historically black university in the State University System, determine whether the proposed program may adversely affect that university's ability to achieve or maintain student diversity in its existing program.

## **CHAPTER 4 - Academic Affairs**

- 4. Provide a complete budget for the program that is comparable in cost to similar existing programs. The budget shall reflect the purpose of the proposal and provide evidence that, in the event resources within the institution are redirected to support the new program, such a redirection will not have an unjustified negative impact on other programs.
- 5. Describe the projected benefit (quantitate and/or qualitative) to the College, local community, and the state of Florida if the program is implemented. Demonstrate efficient use of resources and justification for the investment.

## ii. Institutional Readiness

- 1. Provide evidence that the College has the resources in place or will make the necessary investments to ensure that the proposed program will be of high quality. If appropriate, provide evidence that the proposed program will specifically relate to existing institutional strengths. If program reviews in disciplines pertinent to the proposed program or in related disciplines have included recommendations affecting the proposed program, the proposal shall provide evidence that progress has been made in implementing those recommendations.
- 2. Describe a sequenced course of study with expected student learning outcomes, including any appropriate industry-driven competencies, as well as a strategy for assessing student learning and reviewing academic-workforce alignment to make curricular adjustments as needed. Clearly specify appropriate admissions and graduation criteria. The course of study and required credit hours should include a timeframe consistent with similar programs. In cases in which specialized accreditation is available, evidence shall be provided that the program will seek accreditation, or a rationale shall be provided as to why the program will not seek specialized accreditation as required by Regulation 3.006.
- 3. Demonstrate that sufficient qualified faculty are available to initiate the program based on estimated enrollments and that, if appropriate, there is a commitment to hiring additional faculty in later years. Demonstrate that the academic unit or units associated with this new degree have been productive in teaching, research, and service.
- 4. Demonstrate that the necessary library volumes and serials; classrooms, teaching laboratories, research laboratories, offices, and any other types of physical spaces; equipment; and appropriate clinical and internship sites shall be available to implement the program. The proposal shall also indicate whether appropriate fellowships, scholarships, and assistantships are in place or if the university has made sufficient plans for their existence when student support is the norm for similar programs in the discipline.
- (1)(c) Proposed new degree programs shall be reviewed by the Vice President for Finance and Administration and the Provost. The proposal shall be shared with the Institutional Accreditation Liaison to determine if the program constitutes a substantive change. The Provost and the Vice President for Finance and Administration Together they will develop a recommendation to the President. The President will determines whether to recommend the new program to the Board of Trustees for approval.

- (a) If the proposed new program consists of assigning a new CIP code to an existing New College of Florida Area of Concentration, the process can be expedited without the review in (b) below, and with a recommendation from the Provost directly to the President for consideration by the Board of Trustees for final approval.
- (b) Except in the case of (a) above, proposals for new degree programs shall demonstrate the following:
  - 1. The goals of the new degree program are consistent with:
    - a. one or more goals of the SUS strategic planning goals;
    - b. aligned with the New College mission and strategic planning goals;
    - c. relate to New College institutional strengths; and
    - d. consistent with the New College of Florida work plan.
  - 2. There is a need for more students to be educated in the program at the proposed degree level, including:
    - a. estimating the headcount of FTE students in the program;
    - b. indicating steps to be taken to achieve a diverse student body; and
    - e. considering any impact similar programs offered at other post-secondary institutions in Florida may have on the proposed program.
  - 3. Identifying programs at another university in Florida with a substantially similar curriculum and investigate the potential impact of the new program, including:
    - a. discussing the potential for collaboration with the affected university;
    - b. substantiating the need for a duplicate program; and
    - e. if the duplicate program exists at a historically black university in the SUS, determining whether the proposed program may adversely affect the historically black university's ability to achieve or maintain student diversity in its existing program.
  - 4. The proposal shall include a complete budget for the program which is comparable in cost to similar existing programs. The budget shall reflect the purpose of the proposal and provide

- evidence that, in the event resources within the institution are redirected to support the new program, such a redirection will not have an unjustified negative impact on other programs.
- 5. The proposal shall describe the projected benefit to the university, local community, and the State if the program is implemented. The proposal should demonstrate efficient use of resources and justification for the investment. The projected benefit may be both quantitative (data driven) and qualitative in nature.
- 6. A proposal for any degree level shall include a plan to achieve a diverse student body in the program.
- 7. The proposal shall provide evidence that the institution has the resources in place, or will make the necessary investments, to ensure that the proposed program will be of high quality.
  - a. The proposal shall provide evidence that the proposed program will specifically relate to existing institutional strengths.
  - b. If program reviews in the discipline pertinent to the proposed program or in related disciplines have included recommendations affecting the proposed program, the proposal shall provide evidence that progress has been made in implementing those recommendations.
- 8. The proposal shall describe a sequenced course of study with expected student learning outcomes, including any appropriate industry driven competencies for advanced technology and related disciplines, as well as a strategy for assessing student learning.
  - a. Admissions and graduation criteria shall be clearly specified and appropriate.
  - b. The course of study and credit hours required should include a timeframe consistent with similar programs.
  - c. In cases in which specialized accreditation is available, evidence shall be provided that the program will seek accreditation, or a rationale shall be provided as to why the program will not seek specialized accreditation as required by Board of Governors Regulation 3.006.
- 9. The proposal shall demonstrate that sufficient qualified faculty are available to initiate the program based on estimated enrollments, and that, if appropriate, there is a commitment to hire additional faculty in later years. The proposal shall demonstrate that the academic unit or units associated with this new degree have been productive in teaching, research, and service.

- 10. The proposal shall demonstrate that the necessary library volumes and serials, classroom, teaching laboratory, research laboratory, office and any other type of physical space, equipment, and appropriate clinical and internship sites shall be available to implement the program.
- 11. For a graduate level program, the proposal shall indicate whether appropriate fellowships, scholarships, and graduate assistantships are in place, or if the university has made sufficient plans for their existence when student support is the norm in similar programs in the discipline.
- (2)(d) The New College of FloridaNCF Board of Trustees will reviews the proposed new academic degree program proposal with regard to the criteria outlined in paragraph(3)(b) and its implementation costs., and vote on whether to approve the proposed new academic program.
  - (e) Within four weeks of approval of a bachelor's, master's, specialist, or advanced master's degree program by the New College of FloridaNCF Board of Trustees, New College shall notify the Board of Governors Office in writing and provide an electronic copy of the proposal for each program, along with related Board of Trustees approval documents.
    - i. For new degree programs at the undergraduate level, the office of the Board of Governors will assign a CIP code and add the program to the State University System Academic Degree Program Inventory.
  - (3)ii. For new degree programs at the master's level, the Board of Governors will consider approval at a regularly scheduled meeting.
- (4) Process for authorization of other academic curricular offerings
  - (a) For Program Majors (Area of Concentration), College Credit Certificate Programs, and Non-College Credit Certificate Programs:
    - i. Faculty who wish to propose a new undergraduate Area of Concentration shall prepare the following documents and submit them to the Provost's Office:
      - 1. An Academic Learning Compact that articulates student learning outcomes
      - 2. A General Catalog description that includes graduation requirements
      - 3. A forward-looking assessment plan
      - 4. A four-year plan of courses and educational activities that align with the learning outcomes and graduate requirements
      - 5. Identification of any new resources the new AOC will need in order to be successful (e.g., faculty, library resources, facilities, equipment, staff support)
    - ii. The Provost acknowledges receipt of the proposal and forwards it to the Divisions for feedback during Division meetings. This feedback is forwarded to the Educational Policies Committee (EPC).

## **CHAPTER 4 - Academic Affairs**

- iii. The EPC reviews the proposal and considers approval. EPC-approved proposals are then forwarded to the Provost for approval. The Provost then shares the proposal with the Institutional Accreditation Liaison to determine if the new program major represents a substantive change.
- (b) For Program Minors or Program Concentrations, Areas of Emphasis, or Tracks
  - i. Faculty who wish to propose a new minor or program concentration, area of emphasis or track shall submit the following documents to the appropriate Division Chair or Interdisciplinary Program Director:
    - 1. A General Catalog description that includes graduation requirements
    - 2. Identification of any new resources the new AOC will need in order to be successful (e.g., faculty, library resources, facilities, equipment, staff support)
  - <u>ii.</u> The Division Chair or Interdisciplinary Program Director considers approval and forwards the proposal to the Provost. The Provost then considers approval.

Authority: Article IX, Sec. 7, Fla. Constitution; Fla. Board of Governors Regulation 8.011

History: Adopted 11-16-13; Revised 02-24-17 (technical amendment); Revised 04-26-23

## **NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES**

Meeting Date: April 26, 2023

SUBJECT: Revised Regulation 4-6001 Institutes and Centers

## PROPOSED BOARD ACTION

Consider approval of amendments to New College of Florida Regulation 4-6001 *Institutes and Centers*. The amendments align the regulation with BOG Regulation 10.015 *Institutes and Centers*.

## **BACKGROUND**

On March 30, 2022, the Florida Board of Governors amended Regulation 10.015 *Institutes and Centers*. The proposed amendments would put us in compliance with this BOG regulation:

Section (1): Definitions were slightly modified to align with the BOG regulation

Section (3)(f): Adds the responsibility for New College to notify the BOG within 30 days of establishing or terminating a university institute or center.

Section (4)(b): Switches the annual reporting deadline from September 30 to December 1, in accordance with the BOG regulation.

Section (4)(c)(4): Adds the requirement to provide an evaluation/review summary to the NCF Board of Trustees and then the BOG within 30 days of that BOT review.

**Supporting Documentation: Regulation 4-6001** 

Facilitators/Presenters: Dr. Brad Thiessen, Interim Provost

Other Support Documents Available: N/A

## **CHAPTER 4 - Academic Affairs**

#### 4-6001 Institutes and Centers

In order to This regulation establishes criteria and guidelines to ensure that institutes and centers implemented at NCF within New College of Florida enhance existing College activities, and are aligned with the goals of the BOG, and are of the highest quality, the following regulations have been established. Florida Board of Governors (BOG).

- (1) Definitions. Within the context of these regulations, institutes and centers are defined as follows:
  - (a) State of Florida Institute or Center. An entity-organization with a statewide mission that may include two or more state universities established to coordinate inter-institutional research, service, and teaching across the State University System. Two or more institutions within the State University System may participate in an institute or center, which State of Florida Institutes and Centers must be approved by the BOG. The operational budgets of State of Florida institutes and centers reside within the base budgets of the host institutions; additional budget requests must be reviewed by the Council of Academic Vice Presidents (CAVP). Only those proposals that receive a positive recommendation are carried forward to the BOG for consideration.
  - (b) University Institute or Center. An entity that is <u>generally</u> established by NCF at NCF to coordinate <u>institutional</u> research, service, and/or educational/training activities that enhance existing instruction, research, and service. The budget of a university institute or center and any requests for additional funding are wholly within the purview of NCF.
  - (c) Exclusions. A number of units within NCF that are excluded from this policy use the term "Institute" or "Center" in their names, but do not meet the definitions in (1)(a) and (1)(b) above. Examples of these units include the Counseling and Wellness Center, the Fitness Center, the Gender and Diversity Center, the Pritzker Marine Biology Research Center, the Quantitative Resource Center, the Writing Resource Center, the Academic Resource Center, and certain other centers.
- (2) University Regulations for Institutes and Centers. The New College of Florida Board of Trustees (BOT) has adopted this regulation for establishing, operating, evaluating, reviewing, and disbanding university institutes and centers in accordance with criteria from the BOG. The President of NCF is designated by the Trustees BOT to grant authorization for the development and implementation of university institutes and centers at the College. A copy of NCF's university institute and center policies shall be on file in the BOG's Office of Academic and Student Affairs.
- (3) Establishment of Institutes or Centers
  - (a) To establish a State of Florida Institute or Center, the Provost of NCF shall prepare and submit a proposal to the New College BOT for approval. Approved proposals shall be submitted to the BOG's Office of Academic and Student Affairs.
    - (a)1. The proposal shall specify the purpose of the organization, the need and demand to be a State of Florida institute or center, consistency with the BOG Strategic Plan, and funding resources. The proposal shall also include a draft of the proposed Memorandum of Understanding, which has been ratified by the presidents of all affiliated institutions. The Memorandum of Understanding shall contain, at a minimum:

- 1.a. The name of the institute or center;
- 2.b. The identification of the host institution and participating institutions;
- 3.c. The mission of the institute or center;
- 4.d. Guidelines for appointing, funding, supervising, and evaluating the director of the institute or center;
- 5.e. The criteria for appointments to the institute or center's advisory board, including terms, roles, authority, and, if known, current numbers;
- 6.f. Expectations for the administrative and logistical support for the institute or center, including expectations regarding the reimbursement to the host university for direct costs of administrative services rendered by the university to the institute or center;
- 7.g. Procedures at the institutional level for recommending increases/decreases in the appropriation of State funds for the institute or center;
- 8.h. Specifications for the processing of contracts and grants, including the percentage of overhead funds to be returned to the institute or center; and
- 9.i. Expectations and criteria for the cyclic review of the institute or center and other planning and expectations for its operation.
- (b) After review by the BOG staff, the proposal will be forwarded to the Council of Academic Vice Presidents (CAVP) for approval and recommendation to the Chancellor. The Chancellor then determines whether or not this proposal should be carried forward to the BOG. Any state of Florida institute or center must receive full approval from the BOG prior to implementation to receive State of Florida status.
- (c) University institutes and centers at NCF shall be established in accordance with this regulation. An application for a NCF university institute and center should include the following elements:
  - 1. Concept paper.
  - 2. Estimated expenditures for the institute/center (staff, facilities, and budget).
  - 3. Name <u>and qualifications</u> of the proposed institute/center director<del>, his or her disciplinary affiliation, and other College affiliations</del>.
  - 4. Mission of the institute/center.
  - 5. Identification of the types and qualifications of individuals and/or organizations which might be formally affiliated with the institute/center other than employees of the institute/center.

- 6. Identification of the manner in which undergraduate <u>NCF</u> students will benefit from establishment of the institute/center.
- 7. Identification of the expected outcomes and assessment measures to be used in evaluating the effectiveness of the proposed institute/center.
- 8. Recommendation from the appropriate Chair, if the focus is disciplinary/divisional, and the Provost, if the focus is at the College level.
- (d) The Provost or his/her designee will coordinate review of the proposal and provide the proposal to the Administrative Council and the NCF Faculty for information and comment. If the proposal is deemed to have merit, the Provost will then present the proposal to the President for approval. Following approval by the President, the proposal will be presented to the BOT for approval.
- (e) A copy of an approved NCF new university institute or center proposal containing basic descriptive, contact, and fiscal information shall be submitted to the BOG's Office of Academic and Student Affairs. In cases where more than one university is participating, a host university is designated to handle reporting and evaluation of the institute or center.
- (e)(f) NCF is responsible for notifying the BOG office about the establishment or termination of any university institute and center within 30 days of such action.
- (4) Institute and Center Reporting Requirements
  - (a) The BOG's Office of Academic and Student Affairs shall provide maintain an online Institute and Center Reporting database, which will also serve as the official inventory of approved State University System Institutes and Centers.
  - (b) Initial Reporting. Upon receipt of notification that a record has been created for the institute or center in the Institute and Center Reporting database, NCF shall enter descriptive and budgetary information in accordance with instructions provided by the Office of Academic and Student Affairs.
  - (e)(b) Annual Reporting. No later than September 30 December 1 of each year, actual and estimated expenditure and position datainformation shall be entered in the database for the fiscal year running from July 1 of the previous year to June 30 of the current year, in accordance with instructions provided by provided to the BOG's Office of Academic and Student Affairs. Prior to submission to the Office of Academic and Student Affairs, all annual reporting information must be approved by the NCF BOT of NCF or their designee.
  - (d)(c) Evaluation/Review. Copies of all evaluation/review information shall be submitted to the BOG's Office of Academic and Student Affairs.
    - 1. State of Florida institutes and centers shall be reviewed based on criteria and procedures established below and within the Memorandum of Understanding. External consultants may be used in the review process. At a minimum, each State of Florida institute or center shall be

## **CHAPTER 4 - Academic Affairs**

reviewed every five years by the host institution. A copy of the review will be provided to the Council of Academic Vice Presidents to inform any related budget recommendations.

- 2. NCF university institutes and centers shall undergo a formal review must be reviewed at least every seven years.
- 3. At a minimum, all evaluations/reviews shall include:
  - a. A determination of the institute or center's progress toward defined goals and objectives within the context of the institute or center's mission, the participating university missions, and the current BOG's Strategic Plan;
  - b. An assessment of the return on investment of State dollars, if applicable;
  - c. The need for continuation of the institute or center;
  - d. Possible changes in mission or organizational structure;
  - e. Budget reduction or expansion;
  - f. Recommendations for change of classification (State of Florida, Infrastructural, or University institute or center), if applicable; and
  - g. Recommendations for status change (active, inactive, terminated), if applicable.
- 4. Upon completion, a summary of the evaluation/review must be provided to the NCF BOT with a certification that the evaluation/review contained all the required components. A copy of the summary must be submitted to the BOG office within 30 days after the NCF BOT review.
- (5) Disbanding an Institute or Center. University institutes and centers at NCF shall be disbanded at the request of NCF; and, in the case where the College is the host university, with the agreement of participating universities. State of Florida institutes and centers shall be disbanded at the recommendation of the Council of Academic Vice Presidents and upon the approval of the BOG. When an institute or center is disbanded, the host university shall notify the BOG's Office of Academic and Student Affairs.
- (6) If a disbanded institute or center has been funded by the Legislature, the university must provide documentation to ensure that Legislative intent has been achieved and that the institute or center is no longer required. Fiscal information must be provided as part of the annual reporting process if the institute or center expends any funds during the fiscal year in which it is disbanded.

Authority: Article IX, Sec. 7, Fla. Constitution; Fla. Stat. Chapter 1004; Fla. Board of Governors Regulations 1.001 and 10.015

# NEW COLLEGE OF FLORIDA REGULATIONS MANUAL

### **CHAPTER 4 - Academic Affairs**

History: Adopted 05-13-06; Revised and renumbered 11-07-09; Revised 03-11-17 (technical amendment); Revised 04-26-23

### NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES

Meeting Date: April 26, 2023

SUBJECT: Informational Report: Alternative Admissions Option (No Board Action Required)

### **BACKGROUND**

Revisions made to NCF Regulation 5-1002 on April 20, 2021 include an annual reporting requirement to the Board of Trustees for those students admitted under the "alternative admissions option". The "alternative admissions option" is an option for admission of an applicant who does not fully meet minimum admissions requirements but who has special attributes, special talents, or unique circumstances that may contribute to a representative and diverse student body. Up to 15% of the College's first-time-in-college students may be admitted in this way (as "profile admits") each year. In accordance with 5-1002(5b) the Office of the Provost will coordinate additional advising resources to support students who are "profile admits" and report on their progress (retention and graduation rates) annually, compared to the entire student body.

**Supporting Documentation Included:** 

-BOT Profile Admit Report

-Profile Admit Data

### Informational Update Report on FTIC Profile Admit Students

(Prepared by the Office of the Provost, April 2023)

An FTIC profile admit is a student who is admitted to New College without having fully met minimum admissions requirements. According to Regulation 5-1002 on Undergraduate Admissions, the Office of Admissions may admit an applicant who does not fully meet minimum admission requirements but who has special attributes, special talents or unique circumstances that may contribute to a representative and diverse student body, when the applicant can reasonably be expected to do satisfactory work at NCF. In April 2021, additional language was added to Regulation 5-1002

(5) Substitution, Modification or Waiver of Admissions Requirements (a) "up to 15% of the College's first-time-in-college students may be admitted in this way each year."

Analysis of data from Admissions and Institutional Research show that we are in compliance with this requirement:

- From Fall 2017-Fall 2022, only 2-8% of FTIC students were profile admitted (Table 1).
- Table 2 shows that of the profile admitted applicants only 18-22% enrolled at New College in the last two years.

Section 5b of the same regulation states that the "Office of the Provost will coordinate additional advising resources to support students who did not fully meet minimum admission requirements, and report on their progress annually to the Board of Trustees. The report will detail the retention and graduation rates for these students as compared to the entire student body."

Data in Table 3 from Admissions and Institutional Research show the following:

- Given the small number of profile admit students in each entering year, yearly variations in retention and four-year graduation rates are much greater among this population than among the larger populations of non-profile admit students.
- Summing data from the last 12 years, the FTIC profile admit students have a lower first-year retention rate (65%) compared to non-profile admit students (82%).
- Summing data for FTIC students entering from Fall 2010 through Fall 2018, the four-year graduation rate is lower for profile admit students (40%) than for non-profile admit students (56%).

### **Student Support Strategies**

### 1. Notification

At the start of each semester, the Office of Enrollment Management notifies the Provost's Office (Dean of Studies) of the profile admitted students. This list includes student names and admissions exceptions.

### 2. Intervention

The Dean of Studies reviews the list and contacts the faculty advisors with specific recommendations to support student success. These recommendations include working with the students to ensure that students are:

• Enrolled in a Set Sail first-year seminar.

- Connected with supportive resources specific to their profile exception including but not limited to the Writing Resource Center, Quantitative Resource Center, and Student Success Center.
- Enrolled in a language course (if missing the state-required world language requirement), or a plan to complete the language requirement is discussed with student and advisor.
- Enrolled in a math course (if missing the math requirement). Recently, several supportive
  math courses have been added to the schedule including "To Infinity and Beyond" and
  "Set Sail: Mathematical Thinking: Puzzles, Problems and Exploration."

### 3. Continued Campus Connection and Tracking

- The Office of Enrollment Management continues to track profile admits and communicates with students who have missing requirement.
- The Dean of Studies continues to work with students each semester and provides additional supportive measures including Academic Success tutorials, group support sessions offered by the CWC, and specific academic courses.
- Development of the Academic Support Referral system (ASR) connects all students (regardless of admission status) with student success coaches and specific academic supports (including, coaching, tutoring, and additional faculty support).

Our goal for profile admits is that they are retained, supported, and eligible to graduate at the same rate as non-profile admits. Recent improvements in student support programs and targeted course development as well as new FTIC programming will help these students achieve this goal.

# New College of Florida Academic Year 2022-2023 FTIC Profile Admit Students Retention and Graduation Rates Report

**Table 1. Percent of FTIC Profile Admit Students** 

	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022
FTIC Entering Cohort	199	192	147	156	160	188
FTIC Profile Admit Students	4	11	11	12	11	12
% FTIC Profile Admit	2%	6%	7%	8%	7%	6%
Students						

Table 2. Percent of FTIC Profile Admitted Applicants Enrolled at New College of Florida

Term	Total FTIC Profile Admitted Applicants	Total FTIC Profile Admitted and Enrolled Students	% FTIC Profile Admit Applicants Enrolled at NCF
Fall 2013	33	5	15%
Fall 2014	28	7	25%
Fall 2015	16	3	19%
Fall 2016	37	3	8%
Fall 2017	16	4	25%
Fall 2018	18	11	61%
Fall 2019	66	11	17%
Fall 2020	67	12	18%
Fall 2021	52	11	21%
Fall 2022	54	12	22%

Table 3. FTIC Profile Admitted Students First-Year Retention and Four-Year Graduation Rates

	FTIC Profile Admit Students								FTIC Non-Profile Admit Students					
Entering Term	Entering Cohort	Retained in the Spring Term	Fall to Spring Retention Rate	Retained in First Year	First-Year Retention Rate	Grad. in Four Years	Four- Year Grad. Rate	Entering Cohort	Retained in the Spring Term	Fall to Spring Retention Rate	Retained in First Year	First-Year Retention Rate	Grad. in Four Years	Four- Year Grad. Rate
Fall 2010	1	1	100%	0	0%	0	0%	182	171	94%	158	87%	98	54%
Fall 2011	4	4	100%	3	75%	1	25%	233	215	92%	193	83%	134	58%
Fall 2012	7	7	100%	6	86%	4	57%	216	202	94%	175	81%	113	52%
Fall 2013	5	4	80%	5	100%	2	40%	217	199	92%	173	80%	117	54%
Fall 2014	7	6	86%	6	86%	4	57%	228	218	96%	185	81%	127	56%
Fall 2015	3	3	100%	3	100%	2	67%	258	243	94%	217	84%	149	58%
Fall 2016	3	2	67%	1	33%	0	0%	227	211	93%	180	79%	124	55%
Fall 2017	4	3	75%	3	75%	3	75%	195	178	91%	148	76%	107	55%
Fall 2018	11	9	82%	7	64%	2	18%	181	168	93%	158	87%	110	61%
Fall 2019	11	8	73%	4	36%		N/A	136	125	92%	114	84%		N/A
Fall 2020	12	9	75%	8	67%		N/A	144	131	91%	115	80%		N/A
Fall 2021	11	7	64%	5	45%		N/A	149	136	91%	115	77%		N/A
Fall 2022	12	12	100%		N/A		N/A	176	162	92%		N/A		N/A
Grand Total	91	75	82%	51	65%	18	40%	2,542	2,359	93%	1,931	82%	1,079	56%

### **NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES**

Meeting Date: April 26, 2022

SUBJECT: 2023 Accountability Plan

### PROPOSED BOARD ACTION

Consider approval of New College of Florida's 2023 Accountability Plan to be submitted to the Board of Governors by May 1, 2023. The Accountability Plan will be presented at the June meeting of the Board of Governors.

Authorize the President to make necessary grammatical and formating adjustments to the Accountability Plan prior to submission.

### **BACKGROUND**

In accordance with Florida Statute 1001.706 and Board Regulation 2.002, New College of Florida's 2023 Accountability Plan outlines the College's top priorities and strategic directions, and reports performance on previously approved institutional and system goals. The layout for the 2023 Accountability Plan is largely the same as the 2022 template, with a few notable changes that are listed below.

- (1) A new narrative section has been added to capture institution's specific endorsement of the Board of Governors' Statement of Free Expression, as well as a clear expectation for open-minded and tolerant civil discourse throughout the campus community.
- (2) PBF#1: Percent of Bachelor's Graduates Enrolled or Employed wage threshold changed from \$30,000 to \$40,000.
- (3) PBF#3: Average Cost to the Student will be reported in two ways this year as PBF3.1 and PBF3.2 where PBF3.1 uses the same historical methodology while PBF3.2 uses the same method except it excludes federal emergency funds. Having this data in the 2023 plans will enable us to make a smooth transition off of these federal emergency funds in the 2024 plans.
- (4) PBF#9A: FCS AA Transfer Graduation Rate has changed from a two-year to a three-year measure.

**Supporting Documentation Included: 2023 Accountability Plan** 

Facilitators/Presenters: Interim Provost Brad Thiessen

Other Support Documents Available: N/A



# NEW COLLEGE OF FLORIDA

Draft 4/26/23





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# **INTRODUCTION**

The Accountability Plan is an annual report that is closely aligned with the Board of Governors' 2025 System Strategic Plan. This report enhances the System's commitment to accountability and strategic planning by fostering greater coordination between institutional administrators, University Boards of Trustees and the Board of Governors regarding each institution's direction and priorities as well as performance expectations and outcomes on institutional and System-wide goals.

Once an Accountability Plan is approved by each institution's respective Boards of Trustees, the Board of Governors will review and consider the plan for approval, excluding those sections of the Plan that require additional regulatory or procedural approval pursuant to law or Board regulations.

Beginning with the 2023 Accountability Plans, all universities must comply with Recommendation II of the Board's Civil Discourse Final Report adopted by the Board in January 2022. Recommendation II recommends that "each university's Accountability Plan ... include a specific endorsement of the Board's Statement of Free Expression, as well as a clear expectation for openminded and tolerant civil discourse throughout the campus community." This statement may appear in any of these narrative portions: Mission, Statement of Strategy; or Strengths, Opportunities, and Challenges.



# **STRATEGY**

# Mission Statement

New College of Florida enrolls intellectually ambitious and talented students and, through unfettered intellectual inquiry and debate, provides them with a traditional liberal arts education. This education is strategically designed to allow students to examine what it means to be a human with all the beauty and challenges that this entails. This objective purposefully includes, but is not limited to, that employers competitively recruit them for their abilities in both hard and soft skills immediately upon graduation. Through their education at New College, students will build upon their innate talents and abilities as humans to be creative, analytical, knowledgeable, forward-thinking, curious, humble, and empathetic.

New College of Florida promotes a climate of free expression and tolerant civil discourse according to the principles set forth in the State University System Free Expression Statement and the Board of Governors Civil Discourse Final Report.

# Statement of Strategy

To be the number one liberal arts college in the nation we must move quickly and strategically. To realize our full potential as a national leader, New College of Florida will implement the following strategies:

### 1. Enrollment Growth

Students, Students, Students,

Our historical enrollment is unacceptable. We currently sit at 691 and have never been beyond 875. Our historical freshman enrollment hovers around 200. This will change.

### 2. Increase Funding

Money. Money. Money.

New College has not excelled at raising funds publicly or privately. This too will change. Successful fundraising allows us to rebuild to excellence, to recruit students, and to recruit faculty.

### 3. Add world-class faculty

New College should expand its faculty. While it has many excellent members on staff, this can be added to through intentional and sustained recruitment.

### 4. Strengthen quality and reputation of academic programs.

New College needs to have a defined curriculum that is crafted to achieve the aim of the liberal arts education: to teach students how to think. Students who graduate from New College should immediately be recognizable to employers as having the hard and soft skillsets needed to enhance their organizations. To do this, the college course progression should intentionally build students' abilities to think critically on any issue, as well as understand the challenges and the beauty that inherently result from being human.

The course progression should not be so broad as to be meaningless, a chaotic hodgepodge of courses that are unrelated in a strategic way to accomplishing these aims. New College will work to bring its programs and course offerings into alignment with its mission and goals.

### 5. Be a beacon for free speech to the nation.

New College aims to serve as a beacon of free speech, free inquiry, and free debate in Florida and beyond. First, New College will ensure that it follows the Chicago Principles, adopted by the State University System in Florida in 2019, because "without a vibrant commitment to free and open inquiry, a university ceases to be a university." Second, New College will institute a segment of the required freshman orientation segment which addresses the importance of free speech and inquiry at New College. Third, New College will host symposiums with nationally recognized speakers on topics relating to the status of free speech nationally and around the world.

### 6. Uniquely prepare our students to conquer the world.

New College embraces the power of relationships and community. At a time when more and more universities move large numbers of students through classes without any real opportunity for 1:1 faculty engagement, New College has never wavered from the authentic relationships among our faculty, students, and staff that are essential to learning. It is crucial that New College students engage with the community through coursework, internships, independent studies, and senior thesis projects. These relationships are the building blocks that strengthen our academic experience for a student at New College.

# Strengths, Opportunities & Challenges

As Florida's designated honors college, New College of Florida provides an affordable, high-quality educational experience that consistently ranks among the top public liberal arts and sciences colleges in the nation. To fully realize our potential, we must address serious challenges:

- (1) Attracting students. To do this, New College needs to improve its academic offerings, marketing, infrastructure, co-curriculars, extracurriculars, student life, and food options.
- (2) Improving infrastructure. New College must improve its infrastructure by adding additional buildings, as well as renovating existing buildings. Inadequate residence halls, aging academic spaces, and growing deferred maintenance make it difficult to recruit top students and faculty. Our technological infrastructure also fails to meet the expectations of students and employees.
- (3) Improving student life. New College has not historically provided a strong student life experience outside of the classroom. To meet student expectations, we must add an athletics program, improve the residential experience, ensure quality of food program and add more food options, and provide campus events that enhance the college experience.

The investment from the Legislature affords us the opportunity to address these challenges and position New College of Florida as the number one Liberal Arts Honors College in the nation.

# Three Key Initiatives & Investments

To increase student enrollment, retention, graduation rates, and post-graduation success, New College of Florida is investing in growing students in the following:

### (1) Increasing scholarships

Increasing FTIC and transfers through new articulation agreements and enhanced financial aid packages.

### (2) Improving student experience

The waterfront site and historical buildings provide New College with one of the most beautiful geographical locations for a college in the nation. Students will be drawn to this with addition of amenities that enhance the students' quality of life, including housing updates, improving food quality and availability, and a new investment in athletics.

### (3) Becoming the top liberal-arts college in the nation

First, New College will be a traditional liberal arts college in that it purposefully prepares students to think about the human condition through the reading the greatest writers throughout history that have struggled to define this condition and answer its challenges. We aim for students to live an examined life. This is the foundation for preparing an educated person to go out into the world and wrestle with the issues that will face him or her in their personal and professional lives.

Second, New College will use this foundation to ensure that every student graduates with the ability to do something of value, as measured by their own personal goals, as well as wages. Courses that aim to provide these skills will go beyond the technical content in order to teach mindsets, not merely skillsets, so that students are prepared for a rapidly changing world, including the advancement of AI. With these two goals, we are creating a curriculum scope and sequence.

Third, we are recruiting, hiring, training, and investing in the development of world-class faculty that are in alignment with these aims.

No other college or university in the country has implemented such a forward-thinking program, combining the best of the past and the promise of the future, and the uniqueness and marketability of its graduates will draw students to its program.

### (4) Infrastructure.

Beyond taking care of some deferred maintenance, we are investing in top-notch facilities — residence halls and academic/mixed-use spaces — and best-in-class technology. Our goal is for the appearance and usefulness of our physical campus to match the quality of our academic program.

# Graduation Rate Improvement Plan Update

### **Academic Contract System and Block Tuition Model**

New College of Florida's block tuition academic contract system — a system that charges full-time students the same tuition regardless of how many credit hours they attempt — incentivizes students to complete their degrees within four years. The effectiveness of this system is evidenced by:

- 86% of degrees awarded without excess hours
- 80% of resident undergraduate students completing at least 15 credit hours in Fall 2021
- An average net cost of -\$8,360 (-\$14,510 including federal emergency funds) for a bachelor's degree (tuition, fees, books, and supplies)

### Actions Taken in 2022-23

To further improve graduation rates, New College of Florida implemented its Student Success Plan initiatives:

- (1) We started conferring degrees in January and August. This allows students who complete their degree requirements in Fall or Summer to earn their degrees in a timely manner.
- (2) We awarded \$200,000 in retention and completion scholarships to resolve short-term financial hardships before they became barriers to a student's ability to graduate on-time. Every student who received a completion scholarship in Fall 2022 graduated, demonstrating a tremendous return on investment. Furthermore, 37 of 38 students receiving retention scholarships in Fall 2022 were retained into Spring 2023.
- (3) We opened a One-Stop Shop with staff from the Offices of the Registrar, Finance, and Financial Aid to quickly resolve student concerns and improve quality service.

# Key Achievements for Last Year (Student, Faculty, Program, Institutional)

### Student Achievements

- Third-year student Michael Bolesh was selected as a Boren scholar, joining the French component of the African Flagship Language Initiative (AFLI) to study in Dakar.
- Since 2005, NCF has produced 26 NSF Graduate Research Fellowship awardees and 9 honorable mentions. This year, three students were recognized for this prestigious five-year award for STEM graduate studies:
  - Corinne Laughrey: Physics and Astronomy Astronomy and Astrophysics
  - Mason Tedeschi: STEM Education and Learning Research Science Education
  - Elizabeth White: Life Sciences Evolutionary Biology (Honorable Mention)
- Three students presented research at the 2023 NCUR (National Conference on Undergraduate Research):
  - Francis FenandezGarcia "Indigenous Representation in International Organizations: How Arctic Indigenous Peoples Cooperate to Address Climate Change"
  - Qadira Locke "Women's Fashion and Sumptuary Laws in the Joseon Dynasty Korea (1392-1897)"
  - Sydney Haas "The Measurement of Nitrates and Phosphates in the Sarasota Bay"

### **Faculty Achievements**

- Jayne Gardiner (Biology and Director of NCF's Pritzker Marine Biology Research Center) was named a rotating program director for the Biological Oceanography Program of the National Science Foundation.
- Xia Shi (History and International Studies) earned a Fulbright award to carry out research in Taiwan for her next book *Concubines in Public: Embodied Subjects and the Politics of the Private in Republican China.*
- Robert Zamsky (English) earned the 2020 Elizabeth Agee Award in American Literature for his forthcoming book, *Orphic Bend: Music and Innovative Poetics*.
- Yidong Gong (Anthropology and International & Area Studies) earned one of fifteen Luce/ACLS Early Career Fellowships in China Studies for a book project offering an analysis of medicine from China in South Sudan.

### **Program Achievements**

- NCF's Applied Data Science program ranked #25 on Fortune Magazine's list of best data science programs.
- NCF's one-stop shop, the START Center, was recognized with the Distinction Award for Student Experience at the Transact 360 Conference.
- The Society for Analytical Chemists of Pittsburgh awarded NCF's chemistry program an Undergraduate Analytical Research Program Grant for red tide research.
- The Chronicle of Higher Education highlighted NCF's innovative career preparation program in a report entitled *New Pathways from College to Career*.

### Institutional Achievements

- New College of Florida maintained its status as a top-ranked liberal arts college:
  - #5 among public liberal arts colleges (U.S. News & World Report)
    - Also #40 most innovative, #49 best value, and #52 in social mobility
  - #4 among public liberal arts colleges (Washington Monthly)
  - o #29 best value public college (Princeton Review)
    - Also #3 for making an impact, #7 in financial aid, and #7 best alumni network
  - o Top 10 best buy public college (Fiske Guide)

# Performance-Based Funding Goal Adjustments

### Metric 9a: FCS AA Transfer Three-Year Graduation Rate

Although we project a second consecutive year of improvement to our annual three-year graduation rate for FCS AA transfers in 2023-24, we're likely to see a decline in the rolling three-year average of these graduation rates. The use of a rolling three-year average distorts our actual performance and is likely to again cost us improvement points on this metric.

# PERFORMANCE-BASED FUNDING METRICS

### 1. Percent of Bachelor's Graduates Enrolled or Employed (\$40,000+)

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
ACTUAL	•	•	•	52.3	50.4	•				•
APPROVED GOALS										
PROPOSED GOALS						52	54	56	58	60

Note: In November 2022, the Board's Budget and Finance Committee approved a change increase the wage threshold for graduates found employed from \$30,000 to \$40,000. Due to the change in methodology, outcomes for graduates prior to 2019-20 are not available.

### 2. Median Wages of Bachelor's Graduates Employed Full-time

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
ACTUAL	25,900	29,700	36,500	32,400	34,900		•	•		
APPROVED GOALS	27,400	28,000	31,000	36,000	37,000	38,000	39,000	40,000	41,000	
PROPOSED GOALS		•	•			38,000	39,000	40,000	41,000	42,000

PBF Metric #3 Note: Beginning Spring 2020, The Coronavirus Aid, Relief, and Economic Security (CARES) Act Higher Education Emergency Relief Fund (HEERF) has provided institutions with gift aid for students that can be used until the 2022-23 academic year. Since these funds are non-recurring, the reporting of the Average Cost to the Student metric in the 2023 Accountability Plan will reflect the Average Cost to the Student with and without HEERF federal emergency grants. The Board of Governors will evaluate year-over-year improvement in 2025, when the federal emergency funds are no longer available (in 2022-23).

### 3.1. Average Cost to the Student [includes federal emergency funds]

	2017-18	2018-19	2019-20*	2020-21*	2021-22*	2022-23*	2023-24	2024-25	2025-26	2026-27
ACTUAL	-1,060	-1,340	-2,120	-4,500	-14,510			•		
APPROVED GOALS	6,750	6,000	0	0	0	0	0	0	0	
PROPOSED GOALS						0	0	0	0	0

### **3.2. Average Cost to the Student** [excludes federal emergency funds]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	
ACTUAL	-1,060	-1,340	-560	-1,330	-8,360		·	•	•	•	
APPROVED GOALS											
PROPOSED GOALS						0	0	0	0	0	

# PERFORMANCE-BASED FUNDING METRICS (cont.)

### 4. FTIC Four-Year Graduation Rate [Full-time, First Time in College students]

	2014-18	2015-19	2016-20	2017-21	2018-22	2019-23	2020-24	2021-25	2022-26	2023-27
ACTUAL	55.7	57.9	53.9	55.3	58.3					
APPROVED GOALS	55	57.5	60	54.8	57	59	62	66	67	
PROPOSED GOALS				•	•	59	62	66	67	68

# 5. Academic Progress Rate [Second Fall Retention Rate with at Least a 2.0 GPA for Full-time FTIC students]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	75.9	85.9	80.3	78.8	75.0					
APPROVED GOALS	80	80	82	80	82	84	85	86	87	
PROPOSED GOALS			-			84	85	86	87	88

# 6. Percentage of Bachelor's Degrees Awarded within Programs of Strategic Emphasis

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	48.0	52.6	57.9	46.2	50.6					•
APPROVED GOALS	51	50	52	43.7	50	50	50	50	50	
PROPOSED GOALS						50	50	50	50	50

### 7. University Access Rate [Percent of Undergraduates with a Pell grant]

	FALL 2017	FALL 2018	FALL 2019	FALL 2020	FALL 2021	FALL 2022	FALL 2023	FALL 2024	FALL 2025	FALL 2026
ACTUAL	33.3	31.7	28.4	30.4	30.0		•			•
APPROVED GOALS	30	31	32	30	31	32	33	34	35	
PROPOSED GOALS						32	33	34	35	36

# PERFORMANCE-BASED FUNDING METRICS (cont.)

### 8. Percentage of Newly Admitted FTICs with High School GPA of a 4.0 or Higher

	FALL 2018	FALL 2019	FALL 2020	FALL 2021	FALL 2022	FALL 2023	FALL 2024	FALL 2025	FALL 2026	FALL 2027
ACTUAL	60.0	36.1	38.6	46.8	55.1	•		•	·	•
APPROVED GOALS		•			•	•		•		•
PROPOSED GOALS						55	56	57	58	59

Note: In November 2022, the Board's Budget and Finance Committee approved a change to this metric to replace the high school class rank of newly admitted FTIC students with high school grade point average.

# 9a. BOG Choice: FCS AA Transfer Three-Year Graduation Rate [Full- and part-time students]

	2015-18*	2016-19*	2017-20*	2018-21*	2019-22*	2020-23	2021-24	2022-25	2023-26	2024-27
ACTUAL	64.3	67.4	75.6	67.5	58.1					
APPROVED GOALS				66	62	64	66	68	70	
PROPOSED GOALS						64	66	68	70	71

Note: House Bill 2524 passed during the 2022 Florida Legislative session changed this metric from a two-year graduation rate to a three-year graduation rate. An asterisk is shown where a three-year rolling average has been used until cohort reaches at least 25 for three consecutive cohorts.

### 9b. BOG Choice: FTIC Pell Recipient Six-Year Graduation Rate [Full- and part-time students]

	2012-18	2013-19	2014-20	2015-21	2016-22	2017-23	2018-24	2019-25	2020-26	2021-27
ACTUAL	60.0	62.1	60.6	65.2	57.4					
APPROVED GOALS				68.4	55	60	62	64	65	
PROPOSED GOALS						60	62	64	65	66

# 10. BOT Choice: Percent of FTIC Graduates Completing 3+ High-Impact Practices

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	57.9	65.7	86.2	93.1	93.0					
APPROVED GOALS	55	55	59	90	90	90	90	90	90	
PROPOSED GOALS						90	90	90	90	90

# **KEY PERFORMANCE INDICATORS**

Teaching & Learning (from the 2025 System Strategic Plan not included in PBF section)

# 1. Public University National Ranking [Number of Top50 Rankings based on BOG's official list of publications]

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
ACTUAL	5	4	4	4	4					•
APPROVED GOALS	5	5	5	4	4	4	4	4	4	•
PROPOSED GOALS						4	4	4	4	4

# 2. Freshmen in Top 10% of High School Class

	FALL 2018	FALL 2019	FALL 2020	FALL 2021	FALL 2022	FALL 2023	FALL 2024	FALL 2025	FALL 2026	FALL 2027
ACTUAL	37	22	25	21	29		•			•
APPROVED GOALS	41	40	30	25	25	25	25	25	25	•
PROPOSED GOALS						25	25	25	25	25

# 3. Time to Degree for FTICs in 120hr programs

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	3.9	3.9	3.8	3.9	4.0					
APPROVED GOALS	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	
PROPOSED GOALS						3.9	3.8	3.8	3.8	3.8

# 4. Percent of Baccalaureate Degrees Awarded Without Excess Hours

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	83	87	82	82	86					
APPROVED GOALS	83	83	84	80	82	83	84	85	86	
PROPOSED GOALS						83	84	85	86	87

Teaching & Learning (from the 2025 System Strategic Plan not included in PBF section)

### 5. Six-Year FTIC Graduation Rates [Full-& Part-time students]

	2012-18	2013-19	2014-20	2015-21	2016-22	2017-23	2018-24	2019-25	2020-26	2021-27
ACTUAL	60	64	64	66	63					
APPROVED GOALS	60.5	62	64	66	59	60	65	70	71	
PROPOSED GOALS						60	65	70	71	72

# 6. FCS AA Transfer Two-Year Graduation Rate [Full-time students]

	2016-18*	2017-19*	2018-20*	2019-21*	2020-22*	2021-23	2022-24	2023-25	2024-26	2025-27
ACTUAL	26	29	25	23	21					
APPROVED GOALS				22	24	27	33	40	50	
PROPOSED GOALS						27	33	40	50	55

Note: An asterisk is shown where a three-year rolling average has been used until cohort reaches at least 25 for three consecutive cohorts.

# 7. Pell Recipient Four-Year Graduation Rate [for Full-Time FTIC]

	2014-18	2015-19	2016-20	2017-21	2018-22	2019-23	2020-24	2021-25	2022-26	2023-27
ACTUAL	51	55	47	54	50					
APPROVED GOALS			60	50	50	55	60	62	64	
PROPOSED GOALS						51	53	55	57	59

### 8. Bachelor's Degrees Awarded [First Majors Only]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	177	213	183	158	156					
APPROVED GOALS	180	190	200	158	160	150	150	170	175	
PROPOSED GOALS						139	140	150	175	190

### 9. Graduate Degrees Awarded [First Majors Only]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	7	16	9	12	16					
APPROVED GOALS	7	15	10	12	16	8	12	20	25	
PROPOSED GOALS						7	8	10	20	30

Teaching & Learning (from the 2025 System Strategic Plan not included in PBF section)

# 10. Percentage of Bachelor's Degrees Awarded to African-American & Hispanic Students

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	20	13	22	15	26					
APPROVED GOALS	22	22	20	15	25	26	27	28	29	
PROPOSED GOALS						19	27	28	29	30

# 11. Percentage of Adult (Aged 25+) Undergraduates Enrolled

	FALL 2018	FALL 2019	FALL 2020	FALL 2021	FALL 2022	FALL 2023	FALL 2024	FALL 2025	FALL 2026	FALL 2027
ACTUAL	3	3	5	6	5		•	•		
APPROVED GOALS	1	2	2	4	4	5	5	5	5	
PROPOSED GOALS						5	5	5	5	5

# 12. Percent of Bachelor's Degrees in STEM & Health

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	40	38	46	38	42					
APPROVED GOALS	41	42	43	37	38	39	40	41	42	
PROPOSED GOALS						39	40	41	42	43

# 13. Percent of Graduate Degrees in STEM & Health

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	100	100	100	100	100					
APPROVED GOALS	100	100	100	100	100	100	100	100	100	
PROPOSED GOALS						100	100	100	100	100

# Scholarship, Research & Innovation Metrics

# 14. National Academy Memberships

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
ACTUAL	0	0	0	0	0					
APPROVED GOALS	0	0	0	0	0	0	0	0	0	•
PROPOSED GOALS			•	•		0	0	0	0	0

# 15. Faculty Awards

	FALL 2016	FALL 2017	FALL 2018	FALL 2019	FALL 2020	FALL 2021	FALL 2022	FALL 2023	FALL 2024	FALL 2025
	2010	2017	2010	2013		2021	2022	2023	2024	2023
ACTUAL	0	0	0	0	N/A	•			•	
APPROVED GOALS	0	0	0	0	0	0	0	0	0	
PROPOSED GOALS						0	0	0	0	0

Note: The Center for Measuring University Performance's "Top American Research Universities," report used for this metric has been discontinued.

# 16. Percent of Undergraduates Engaged in Research

	SPRING 2018	SPRING 2019	SPRING 2020	SPRING 2021	SPRING 2022	SPRING 2023	SPRING 2024	SPRING 2025	SPRING 2026	SPRING 2027
ACTUAL	ē		100	100	100	•	•			
APPROVED GOALS	•				100	100	100	100	100	
PROPOSED GOALS				_		100	100	100	100	100

# 17. Total Research Expenditures (\$Thousands)

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	875	962	999	960	1,252					
APPROVED GOALS	1,100	1,300	1,000	970	1,000	1,100	1,150	1,200	1,250	
PROPOSED GOALS						1,250	1,300	1,350	1,400	1,450

# 18. Research Expenditures from External Sources (\$Thousands)

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
ACTUAL	492	606	455	495	855					
APPROVED GOALS		·	615	430	550	625	700	800	850	
PROPOSED GOALS						800	850	900	950	1,000

# Scholarship, Research & Innovation Metrics

# 19. Utility Patents Awarded

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
ACTUAL	0	0	0	0	0	•				
APPROVED GOALS	0	0	0	0	0	0	0	0	0	
PROPOSED GOALS					_	0	0	0	0	0

# 20. Number of Licenses/Options Executed Annually

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
ACTUAL	0	0	0	0	0	•				•
APPROVED GOALS	0	0	0	0	0	0	0	0	0	
PROPOSED GOALS						0	0	0	0	0

# 21. Number of Start-up Companies Created

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
ACTUAL	0	0	0	0	0					
APPROVED GOALS	0	0	0	0	0	0	0	0	0	
PROPOSED GOALS						0	0	0	0	0

# **ENROLLMENT PLANNING**

# Fall Headcount Enrollment by Student Level [all degree-seeking students, all campuses]

UNDERGRADUATE	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
ACTUAL	808	703	646	633	671				-	
APPROVED GOALS	860	825	710	592	610	630	660	710	750	•
PROPOSED GOALS						660	680	725	780	880
GRADUATE	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
ACTUAL	29	24	29	27	20				•	
APPROVED GOALS	30	35	32	28	20	35	40	40	50	
PROPOSED GOALS						20	30	40	50	50

# Fall Headcount Enrollment by Student Type [all degree-seeking students, all campuses]

UNDERGRADUATE	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
FTIC: New	197	150	159	165	193	195	200	235	270	320
FTIC: Returning	496	457	389	368	346	350	350	350	360	400
Transfer: FCS w/ AA	41	30	36	35	39	40	50	55	60	65
Other Undergraduates	74	64	58	61	86	70	75	80	85	90
Post-Baccalaureates	0	2	4	4	7	5	5	5	5	5
Subtotal	808	703	646	633	671	660	680	725	780	880
GRADUATE	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Master's	29	24	29	27	20	20	30	40	50	50
Research Doctoral	0	0	0	0	0	0	0	0	0	0
Professional Doctoral	0	0	0	0	0	0	0	0	0	0
Subtotal	29	24	29	27	20	20	30	40	50	50
TOTAL	837	727	675	660	691	680	710	765	830	930

Note: This table reports this number of students enrolled by student type categories. These headcounts only include those seeking a degree – unclassified students (e.g., dual enrolled) are not included. The student type for undergraduates is based on the 'Type of Student at Most Recent Admission'. The First Time in College (FTIC) student was admitted in the same fall term or in the preceding summer term – this includes those who were re-admitted as FTICs.

# ENROLLMENT PLANNING (cont.)

# Percent of Baccalaureate-Seeking Resident Undergraduates Earning 15+ Credits [Fall term]

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
ACTUAL	82	86	82	79	80					
APPROVED GOALS	-	83	84	85	80	80	80	80	80	
PROPOSED GOALS						80	80	80	80	80

# Full-Time Equivalent (FTE) Enrollment by Course Level

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2028-29
LOWER	227	233	147	167	164	203	205	210	247	284	336
UPPER	710	646	617	543	521	526	511	528	539	561	616
GRAD 1	21	20	18	22	18	14	14	21	29	36	36
GRAD 2	0	0	0	0	0	0	0	0	0	0	0
TOTAL	957	899	782	732	703	743	730	759	815	881	988

Note: Full-time Equivalent (FTE) student is a measure of all instructional activity (regardless of fundability) that is based on the number of credit hours for all students during an academic (summer, fall, spring) year. FTE is based on the standard national definition, which divides undergraduate credit hours by 30 and graduate credit hours by 24. Pursuant to section 1013.31, Florida Statutes, Board facilities staff use this data as a key factor in the calculation of facility space needs for university educational plant surveys.

### **Percent FTE Enrollment by Method of Instruction**

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
UNDERGRADUATE										
All Distance (100%)	0	0	0	44	3	5	5	5	5	5
Primarily Dist. (80-99%)	0	0	0	0	0	0	0	0	0	0
Flex	0	0	0	21	0	0	0	0	0	0
Hybrid (50-79%)	0	0	0	31	0	0	0	0	0	0
Classroom (0-49%)	100	100	100	5	97	95	95	95	95	95
GRADUATE										
All Distance (100%)	0	0	0	25	22	25	25	30	30	35
Primarily Dist. (80-99%)	0	0	0	0	0	0	0	0	0	0
Flex	0	0	0	25	0	0	0	0	0	0
Hybrid (50-79%)	0	0	0	18	0	0	0	0	0	0
Classroom (0-49%)	100	100	100	32	78	75	75	70	70	65

Note: Effective for the Fall 2020 term, Board staff added a new FLEX value to capture the course sections in which there is a mix of modalities within the same course section that allows students the option to switch between the modalities during the term. See definitions sections for a detailed description.

# ACADEMIC PROGRAM COORDINATION

# New Programs for Consideration by Institution in AY 2023-24

The SUS Council of Academic Vice Presidents Academic Program Coordination Work Group will review these programs as part of their on-going coordination efforts. The programs listed below are based on the 2022 Accountability Plan list for programs under consideration for 2023-24.

PROGRAM TITLES	CIP CODE	AREA OF STRATEGIC EMPHASIS	OTHER INST W/ SAME PROGRAM	OFFERED VIA DISTANCE LEARNING IN SYSTEM	PROJECTED ENROLLMENT IN 5 <sup>TH</sup> YEAR	PROPOSED DATE OF SUBMISSION TO UBOT
UNDERGRADUATE						
MASTER'S, SPECIALIST AN	ND OTHER A	DVANCED MA	ASTER'S PRO	GRAMS		
DOCTORAL PROCESANC						
DOCTORAL PROGRAMS						
(none)						
These programs will be used		AREA OF	OTHER INST	OFFERED VIA DISTANCE	PROJECTED ENROLLMENT	PROPOSED
PROGRAM TITLES	CIP CODE	STRATEGIC EMPHASIS	W/ SAME PROGRAM	LEARNING IN	IN 5 <sup>TH</sup> YEAR	DATE OF SUBMISSION TO UBOT
PROGRAM TITLES  UNDERGRADUATE	-					SUBMISSION
	-			LEARNING IN		SUBMISSION
	CODE	EMPHASIS	PROGRAM	LEARNING IN SYSTEM		SUBMISSION
UNDERGRADUATE  MASTER'S, SPECIALIST AN	CODE	EMPHASIS	PROGRAM	LEARNING IN SYSTEM		SUBMISSION
UNDERGRADUATE	CODE	EMPHASIS	PROGRAM	LEARNING IN SYSTEM		SUBMISSION

# **DEFINITIONS**

# Performance Based Funding (PBF)

**PBF-1. Percent of Bachelor's Graduates Enrolled or Employed (\$40,000+) One Year After Graduation:** This metric is based on the percentage of a graduating class of bachelor's degree recipients who are enrolled or employed (earning at least \$40,000) somewhere in the United States. This data includes non-Florida data from all states and districts, including the District of Columbia and Puerto Rico; and military enlistment as reported by the institutions. Students who do not have valid social security numbers and are not found enrolled are excluded. Students not found enrolled following graduation and/or employed are also excluded. Sources: State University Database System (SUDS), Florida Department of Economic Opportunity (DEO) analysis of State Wage Interchange System (SWIS), and National Student Clearinghouse (NSC).

**PBF-2. Median Wages of Bachelor's Graduates Employed Full-Time One Year After Graduation:** This metric is based on annualized Unemployment Insurance (UI) wage data from the fourth fiscal quarter after graduation for bachelor's recipients. This data does not include individuals who are self-employed, employed by the military, those without a valid social security number, or making less than minimum wage. This data now includes non-Florida data from all states and districts, including the District of Columbia and Puerto Rico. Sources: State University Database System (SUDS) and Florida Department of Economic Opportunity (DEO) analysis of State Wage Interchange System (SWIS).

PBF-3. Cost to the Student Net Tuition & Fees for Resident Undergraduates per 120 Credit Hours: This metric compares the average sticker price and the average gift aid amount. The sticker price includes: (1) tuition and fees for resident undergraduates; (2) books and supplies (we use a proxy as calculated by the College Board); and (3) the average number of credit hours attempted by students who were admitted as an FTIC student who graduated with a bachelor's degree from a program that requires only 120 credit hours. The gift aid amount includes: (1) financial aid (grants, scholarships, waivers and third-party payments) provided to resident undergraduate students during the most recent academic year; (2) the total number of credit hours for those resident undergraduates. The average gift aid award per credit hour was multiplied by 120 and compared to the sticker price. Sources: State University Database System (SUDS), the Legislature's annual General Appropriations Act, and university required fees as approved by the Florida Board of Governors.

**PBF-4. Four Year FTIC Graduation Rate:** This metric is based on the percentage of first-time-in-college (FTIC) students who started in the fall (or summer continuing to fall) term and were enrolled full-time in their first semester and had graduated from the same institution by the summer term of their fourth year. FTIC includes 'early admit' students who were admitted as a degree-seeking student prior to high school graduation. Students who were enrolled in advanced graduate programs during their 4<sup>th</sup> year were excluded. Source: State University Database System (SUDS).

**PBF-5.** Academic Progress Rate [2nd Year Retention with 2.0 GPA or Above]: This metric is based on the percentage of first-time-in-college (FTIC) students who started in the fall (or summer continuing to fall) term and were enrolled full-time in their first semester and were still enrolled in the same institution during the next fall term with a grade point average (GPA) of at least 2.0 at the end of their first year (fall, spring, summer). Source: State University Database System (SUDS).

**PBF-6:** Bachelor's Degrees within Programs of Strategic Emphasis: This metric is based on the number of baccalaureate degrees awarded within the programs designated by the Board of Governors as 'Programs of Strategic Emphasis.' A student who has multiple majors in the subset of targeted Classification of Instruction Program codes will be counted twice (i.e., double-majors are included). Source: State University Database System (SUDS).

**PBF-7:** University Access Rate Percent of Undergraduates with a Pell Grant: This metric is based the number of undergraduates enrolled during the fall term who received a Pell Grant during the fall term. Students who were not eligible for Pell Grants (e.g., unclassified, non-resident aliens, post-baccalaureate students) were excluded from the denominator for this metric. Source: State University Database System (SUDS).

**PBF-8a:** Graduate Degrees within Programs of Strategic Emphasis: This metric is based on the number of graduate degrees awarded within the programs designated by the Board of Governors as 'Programs of Strategic Emphasis.' A student who has multiple majors in the subset of targeted Classification of Instruction Program codes will be counted twice (i.e., double majors are included). Source: State University Database System (SUDS).

**PBF-8b:** Percentage of Newly Admitted FTICs with High School GPA of a 4.0 or Higher: (*Applies only to New College of Florida*): Percent of all degree-seeking, first-time, first-year (freshman) students who had a high school grade point average of a 4.0 or higher. Source: State University Database System (SUDS).

**PBF-9a:** FCS AA Transfer Three-Year Graduation Rate [Full- and part-time students]: This transfer cohort is defined as undergraduates entering in fall term (or summer continuing to fall) from the Florida College System with an Associate in Arts (AA) degree. The rate is the percentage of the initial cohort that has either graduated from the same institution by the summer term of their third academic year. Both full-time and part-time students are used in the calculation. Students who were flagged as enrolled in advanced graduate programs that would not earn a bachelor's degree are excluded. Source: State University Database System (SUDS).

**PBF-9b: FTIC Pell Recipient Six-Year Graduation Rate [Full- and Part-time students]:** This metric is based on the percentage of first-time-in-college (FTIC) students who started in the fall (or summer continuing to fall) term and were enrolled full-or part-time in their first semester and who received a Pell Grant during their first year (summer to spring) and who graduated from the same institution by the summer term of their sixth year. Students who were flagged as enrolled in advanced graduate programs that would not earn a bachelor's degree were excluded. Source: State University Database System (SUDS).

**PBF-10. FAMU:** Number of Bachelor's Degrees Awarded to Transfers with AA Degrees from FCS: This is a count of first-major baccalaureate degrees awarded to students who entered as FCS AA Transfers. First majors include the most common scenario of one student earning one degree in one Classification of Instructional Programs (CIP) code. A student who earns two baccalaureate degrees under two different degree CIPs is counted twice. Source: State University Database System (SUDS).

**PBF-10. FAU: Total Research Expenditures:** Total expenditures for all research activities, including non-science and engineering activities. Source: As reported by each institution to the National Science Foundation annual survey of Higher Education Research and Development (HERD) based on the NSF rules and definitions.

**PBF-10. FGCU:** Number of Bachelor's Degrees Awarded to Hispanic & African Americans: Race/Ethnicity data is self-reported by students to the university. This includes students who self-select Hispanic, Non-Hispanic African Americans, and those who select multiple races, including Black/African American. Degree data is based on first-major counts only; second majors are not included. Source: State University Database System (SUDS).

**PBF-10. FIU: Number of Post-Doctoral Appointees:** The number of postdoctoral appointees awarded annually. Source: National Science Foundation/National Institutes of Health Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS).

**PBF-10. FPOLY: Percent of Bachelor's Graduates with 2 or more Workforce Experiences:** The percentage of Bachelor's recipients who completed at least two of the following four workforce experiences: external internships, industry-sponsored capstone projects, undergraduate research (from an externally funded research grant), and certifications. Source: Florida Polytechnic University student survey data reported to the Florida Board of Governors.

**PBF-10. FSU:** Number of Bachelor's Graduates who passed an Entrepreneurship Class: The number of Bachelor's recipients who passed one or more graded Entrepreneurship courses before graduating and while not above Excess Hours. Source: Florida State University student survey data reported to the Florida Board of Governors.

**PBF-10. NCF:** Percent of FTIC Graduates Completing 3 or more High Impact Practices: The percentage of graduating seniors who started as FTIC students and who complete three or more high-impact practices as defined by the National Survey of Student Engagement (NSSE) and the Association of American Colleges & Universities. High-impact practices include: (1) capstone project or thesis, (2) internships, (3) study abroad, (4) writing-intensive courses, (5) living-learning communities, (6) undergraduate research, (7) first-year experience, (8) learning communities, (9) service-learning, and (10) collaborative projects. Multiple activities within the same category only count once (e.g., a student completing three internships has completed one high impact practice). Source: New College of Florida student survey data reported to the Florida Board of Governors.

**PBF-10. UCF: Percent of Bachelor's Degrees Awarded to African American and Hispanic Students:** Percent of degrees is based on the number of baccalaureate degrees awarded to Hispanic and non-Hispanic African American students divided by the total degrees awarded - excluding those awarded to non-resident aliens and unreported. Source: State University Database System (SUDS).

**PBF-10. UF: Endowment Size (M):** Assets invested by an institution to support its educational mission. Source: National Association of College and University Business Officers (NACUBO) and Commonfund Institute's annual report of Market Value of Endowment Assets.

**PBF-10. UNF: Percent of Undergraduate FTE in Online Courses:** Full-time equivalent (FTE) student is a measure of instructional activity that is based on the number of credit hours that students enroll. FTE is based on the Integrated Postsecondary Education Data System (IPEDS) definition, which divides undergraduate credit hours by 30. Online, or distance learning, courses provide at least 80 percent of the direct instruction using some form of technology when the student and instructor are separated by time or space, or both per Section 1009.24(17), Florida Statutes. Source: State University Database System (SUDS).

**PBF-10. USF: 6-Year Graduation Rates (FT/PT):** The first-time-in-college (FTIC) cohort is defined as undergraduates entering in fall term (or summer continuing to fall) with fewer than 12 hours earned since high school graduation. The rate is the percentage of the initial cohort that has either graduated from the same institution by the summer term of their sixth academic year. Both full-time and part-time students are used in the calculation. FTIC includes 'early admits' students who were admitted as degree-seeking students prior to high school graduation. Source: State University Database System (SUDS).

**PBF-10. UWF:** Percent of Baccalaureate Graduates Completing 2+ Types of High-Impact Practices: The percentage of graduating seniors completing two or more high-impact practices as defined by the Association of American Colleges & Universities. High-impact practices include: (1) first-year seminar & experiences, (2) common intellectual experience, (3) writing-intensive courses, (4) collaborative assignments & projects, (5) diversity/global learning, (6) ePortolios, (7) service learning, community-based learning, (8) internships, (9) capstone courses & projects. Multiple activities within the same category only count once (e.g., a student completing three internships has completed one high-impact practice). Source: University of West Florida student data reported to the Florida Board of Governors.

# Preeminence Research University (PRE)

**PRE-A:** Average GPA & Average SAT: An average weighted grade point average of 4.0 or higher on a 4.0 scale and an average SAT score of 1200 or higher on a 1600-point scale or an average ACT score of 25 or higher on a 36 score scale, using the latest published national concordance table developed jointly by the College Board and ACT, Inc., for fall semester incoming freshmen, as reported annually.

**PRE-B: National University Rankings:** A top-50 ranking on at least two well-known and highly respected national public university rankings, reflecting national preeminence, using the most recent rankings. Sources: Princeton Review, Fiske Guide, QS World University Ranking, Times Higher Education World University Ranking, Academic Ranking of World University, U.S. News and World Report National University, U.S. News and World Report Liberal Arts Colleges, Forbes, Washington Monthly Liberal Arts Colleges, Washington Monthly National University, and the Center for Measuring University Performance.

**PRE-C: Freshmen Retention Rate:** Freshman Retention Rate (full-time, FTIC) cohorts are based on first-year undergraduate students who enter the institution in the fall term (or summer term and continue into the fall term). Percent retained is based on those who are enrolled during the second fall term. Source: State University Database System (SUDS).

**PRE-D: 4-year Graduation Rate:** This metric is based on the percentage of first-time-in-college (FTIC) students who started in the fall (or summer continuing to fall) term and were enrolled full-time in their first semester and had graduated from the same institution by the summer term of their fourth year. FTIC includes 'early admit' students who were admitted as degree-seeking students prior to high school graduation. Students who were enrolled in advanced graduate programs during their 4<sup>th</sup> year were excluded. Source: State University Database System (SUDS).

**PRE-E: National Academy Memberships:** National Academy Memberships held by faculty. Source: The Center for Measuring University Performance in the Top American Research Universities (TARU) annual report or the official membership directories maintained by each national academy.

**PRE-F: Total Science & Engineering Research Expenditures:** Research expenditures within Science & Engineering disciplines. Source: As reported by each institution to the National Science Foundation (NSF) annual survey of Higher Education Research and Development (HERD) based on the NSF rules and definitions.

**PRE-G: Science & Engineering Research Expenditures in Non-Health Sciences:** Research expenditures within Science & Engineering in non-medical sciences. Source: As reported by each institution to the National Science Foundation annual survey of Higher Education Research and Development (HERD) based on the NSF rules and definitions.

**PRE-H: National Ranking in Research Expenditures:** The NSF identifies eight broad disciplines within Science & Engineering: Computer Science, Engineering, Environmental Science, Life Science, Mathematical Sciences, Physical Sciences, Psychology, and Social Sciences. The rankings by discipline are determined by BOG staff using the NSF online database.

**PRE-I: Patents Awarded:** Total utility patents awarded for the most recent three calendar year period. Based on legislative staff guidance, Board staff query the USPTO database with a query that only counts utility patents: "(AN/"University Name" AND ISD/yyyymmdd->yyyymmdd AND APT/1)". Source: United States Patent and Trademark Office (USPTO).

**PRE-J: Doctoral Degrees Awarded Annually:** Includes doctoral research degrees and professional doctoral degrees awarded in medical and health care disciplines. Also includes veterinary medicine. Source: State University Database System (SUDS).

**PRE-K:** Number of Post-Doctoral Appointees: The number of postdoctoral appointees awarded annually. Source: National Science Foundation/National Institutes of Health Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS).

**PRE-L: Endowment Size (M):** Assets invested by an institution to support its educational mission. Source: National Association of College and University Business Officers (NACUBO) and Commonfund Institute's annual report of Market Value of Endowment Assets.

# Key Performance Indicators (KPI)

**KPI-1: Public University National Ranking:** A top-50 ranking on at least two well-known and highly respected national public university rankings, reflecting national preeminence, using the most recent rankings. Sources: Princeton Review, Fiske Guide, QS World University Ranking, Times Higher Education World University Ranking, Academic Ranking of World University, U.S. News and World Report National University, U.S. News and World Report Liberal Arts Colleges, Forbes, Washington Monthly Liberal Arts Colleges, Washington Monthly National University, and Center for Measuring University Performance.

**KPI-2: Freshmen in Top 10% of High School Class:** Percent of all degree-seeking, first-time, first-year (freshman) students who had high school class rank within the top 10% of their graduating high school class. Source: As reported by each university on the Common Data Set.

**KPI-3: Time to Degree for FTICs in 120hr programs:** This metric is the number of years between the start date (using the student entry date) and the end date (using the last month in the term degree was granted) for a graduating class of first-time, single-major baccalaureates in 120 credit hour programs within a (summer, fall, spring) year. Source: State University Database System (SUDS).

**KPI-4:** Percent of Bachelor's Degrees Without Excess Hours: This metric is based on the percentage of baccalaureate degrees awarded within 110% of the credit hours required for a degree based on the Board of Governors Academic Program Inventory. This metric excludes the following types of student credits: accelerated mechanisms, remedial coursework, non-native credit hours that are not used toward the degree, non-native credit hours from failed, incomplete, withdrawn, or repeated courses, credit hours from internship programs, credit hours up to 10 foreign language credit hours, and credit hours earned in military science courses that are part of the Reserve Officers' Training Corps (ROTC) program. Starting in 2018-19, the calculation for this metric included a new type of statutory exclusion of up to 12 credit hours for students who graduated in four years or less. This metric does not report the number of students who paid the "Excess Hour Surcharge" (Section 1009.286, Florida Statutes). Source: State University Database System (SUDS).

**KPI-5:** Six-Year FTIC Graduation Rates [full-& part-time students]: The first-time-in-college (FTIC) cohort is defined as undergraduates entering in fall term (or summer continuing to fall) with fewer than 12 hours earned since high school graduation. The rate is the percentage of the initial cohort that has either graduated from the same institution by the summer term of their sixth academic year. Both full-time and part-time students are used in the calculation. FTIC includes 'early admits' students who were admitted as degree-seeking students prior to high school graduation. Source: State University Database System (SUDS).

**KPI-6: FCS AA Transfer Two-Year Graduation Rate [full-time students]:** This transfer cohort is defined as undergraduates entering in fall term (or summer continuing to fall) from the Florida College System with an Associate in Arts (AA) degree. The rate is the percentage of the initial cohort that has either graduated from the same institution by the summer term of their second academic year. Only full-time students are used in the calculation. Students who were flagged as enrolled in advanced graduate programs in their 2<sup>nd</sup> year were excluded. Source: State University Database System (SUDS).

**KPI-7:** Pell Recipient Four-Year Graduation Rate [for full-time FTIC]: This metric is based on the percentage of first-time-in-college (FTIC) students who started in the fall (or summer continuing to fall) term and were enrolled full-time in their first semester and who received a Pell Grant during their first year and who graduated from the same institution by the summer term of their fourth year. FTIC includes 'early admit' students who were admitted as degree-seeking students prior to high school graduation. Students who were flagged as enrolled in advanced graduate programs that would not earn a bachelor's degree were excluded. Source: State University Database System (SUDS).

**KPI-8:** Bachelor's Degrees Awarded & KPI-9: Graduate Degrees Awarded: This is a count of first-major baccalaureate and graduate degrees awarded. First majors include the most common scenario of one student earning one degree in one Classification of Instructional Programs (CIP) code. In cases where a student earns a baccalaureate degree under two different degree CIPs, a distinction is made between "dual degrees" and "dual majors." Also included in first majors are "dual degrees," which are counted as separate degrees (e.g., counted twice). In these cases, both degree CIPs receive a "degree fraction" of 1.0. The calculation of degree fractions is made according to each institution's criteria. Source: State University Database System (SUDS).

**KPI-10:** Bachelor's Degrees Awarded to African-American & Hispanic Students: Race/Ethnicity data is self-reported by students to each university. The non-Hispanic, African-American, and Hispanic categories do not include students classified as Non-Resident Alien or students with a missing race code. Degree data is based on first-major counts only; second majors are excluded. Percentage of degrees is based on the number of baccalaureate degrees awarded to non-Hispanic African-American and Hispanic students divided by the total degrees awarded, excluding those awarded to non-resident aliens and unreported. Source: State University Database System (SUDS).

**KPI-11:** Percentage of Adult (Aged 25+) Undergraduates Enrolled: This metric is based on the age of the student at the time of their fall term enrollment, not their age upon entry. As a proxy, age is based on birth year, not birth date. Unclassified students with a high school diploma (or GED) and above are included in this calculation. Source: State University Database System (SUDS).

**KPI-12:** Percent of Bachelor's Degrees in STEM & Health & KPI-13: Percent of Graduate Degrees in STEM & Health: The percentage of degrees that are classified as STEM or Health disciplines by the Board of Governors in the Academic Program Inventory. These counts include second majors. Second majors include all dual/second majors (e.g., degree CIP receive a degree fraction that is less than 1). The calculation of degree fractions is made according to each institution's criteria. The calculation for the number of second majors rounds each degree CIP's fraction of a degree up to 1 and then sums the total. Second majors are typically used when providing degree information by discipline/CIP, to better conveys the number of graduates who have specific skill sets associated with each discipline. Source: State University Database System (SUDS).

**KPI-14:** Licensure & Certification Exam Pass Rates: The average pass rates as a percentage of all first-time examinees for Nursing, Law, Medicine, Veterinary, Pharmacy, Dental, Physical Therapy, and Occupational Therapy, when applicable. The average pass rate for the nation or state is also provided as a contextual benchmark. The Board's 2025 System Strategic Plan calls for all institutions to be above or tied the exam's respective benchmark. The State benchmark for the Florida Bar Exam excludes non-Florida institutions. The national benchmark for the USMLE exams is based on rates for MD degrees from U.S. institutions. Source: BOG staff analysis of exam pass rates provided by institutions or licensure/certification boards.

**KPI-15: National Academy Memberships:** National Academy Memberships held by faculty. Source: Center for Measuring University Performance in the Top American Research Universities (TARU) annual report or the official membership directories maintained by each national academy.

**KPI-16: Faculty Awards:** Awards include: American Council of Learned Societies (ACLS) Fellows, Beckman Young Investigators, Burroughs Wellcome Fund Career Awards, Cottrell Scholars, Fulbright American Scholars, Getty Scholars in Residence, Guggenheim Fellows, Howard Hughes Medical Institute Investigators, Lasker Medical Research Awards, MacArthur Foundation Fellows, Andrew W. Mellon Foundation Distinguished Achievement Awards, National Endowment for the Humanities (NEH) Fellows, National Humanities Center Fellows, National Institutes of Health (NIH) MERIT, National Medal of Science and National Medal of Technology, NSF CAREER awards (excluding those who are also PECASE winners), Newberry Library Long-term Fellows, Pew Scholars in Biomedicine, Presidential Early Career Awards for Scientists and Engineers (PECASE), Robert Wood Johnson Policy Fellows, Searle Scholars, Sloan Research Fellows, and Woodrow Wilson Fellows. Source: Center for Measuring University Performance in the Top American Research Universities (TARU) annual report.

**KPI-17: Percent of Undergraduates Engaged in Research:** Numerator includes graduating seniors who completed an honors thesis, worked on their own research and/or creative activity topic with the guidance of a faculty member (individually or jointly), submitted an article or research for publication or exhibited research at a professional/academic conference (individually or jointly). The denominator includes graduating seniors who complete the survey. While senior exit surveys are traditionally administered in the spring term, institutions may include senior exit surveys from other terms in a given academic year if they are available. Source: Student survey data reported to the Florida Board of Governors.

**KPI-18: Total Research Expenditures:** Total expenditures (in millions of dollars) for all research activities (including non-science and engineering activities). Source: As reported by each institution to the National Science Foundation annual survey of Higher Education Research and Development (HERD) based on the NSF rules and definitions.

**KPI-19: Research Expenditures Funded from External Sources:** This metric reports the research expenditures funded from federal, private industry, and other (non-state and non-institutional) sources. Source: As reported by each institution to the National Science Foundation annual survey of Higher Education Research and Development (HERD) based on the NSF rules and definitions.

**KPI-20: Utility Patents Awarded:** The number of utility patents in a calendar year, excluding design, plant, or similar patents. Source: United States Patent and Trademark Office (USPTO).

**KPI-21:** Number of Licenses/Options Executed Annually: Licenses/options executed in the fiscal year for all technologies. Source: As reported by universities on the Association of University Technology Managers Annual (AUTM) annual Licensing Survey.

**KPI-22: Number of Start-up Companies Created:** The number of start-up companies that were dependent upon the licensing of University technology for initiation. Source: Association of University Technology Managers Annual (AUTM) annual Licensing Survey.

# **Enrollment Planning (ENRL)**

**ENRL-1: Fall Headcount Enrollment by Student Level and Student Type:** This table reports the number of students enrolled by student type categories. These headcounts only include those students who were seeking a degree – unclassified students (e.g., dual enrolled) are not included. The student type for undergraduates is based on the 'Type of Student at Most Recent Admission'. The first-time-in-college (FTIC) student was admitted in the same fall term or in the preceding summer term, including those who were re-admitted as FTICs. Source: State University Database System (SUDS).

**ENRL-2:** Percent of Resident Baccalaureate-Seeking Resident Undergraduates Earning 15+ Credits: This table reports the percent of baccalaureate-seeking resident undergraduates who earned fifteen or more credit hours during the fall term as reported on the Term Credit Hours Earned element (#01089). This includes the pass/fail courses in which the student earned a passing grade and excludes audited courses. Source: State University Database System (SUDS).

**ENRL-3: Full-Time Equivalent Enrollment by Course Level:** This table reports full-time Equivalent (FTE) enrollment, which is a measure of all instructional activity, regardless of fundability, that is based on the number of credit hours that students enroll. This FTE calculation is based on the Integrated Postsecondary Education Data System (IPEDS) definition, which divides undergraduate credit hours by 30 and graduate credit hours by 24. Pursuant to Section 1013.31, Florida Statutes, Board facilities staff use this data as a key factor in the calculation of facility space needs for institution educational plant surveys. Source: State University Database System (SUDS).

**ENRL-4: Percent FTE Enrollment by Method of Instruction:** This table reports the percentages of FTE enrollment that is classified as Distance Learning for all students at all campuses regardless of funding source. Distance Learning is a course in which at least 80 percent of the direct instruction of the course is delivered using some form of technology when the student and instructor are separated by time or space, or both per Section 1009.24(17), Florida Statutes). Effective for the fall 2020 term, Board staff added a new FLEX value to capture the course sections in which there is a mix of modalities within the same course section that allows students the option to switch between the modalities during the term. Course sections with mixed modalities that are predetermined/scheduled by the instructor at the start of the term to accommodate classroom capacity constraints and result in all students in the section having the same percentages of remote work is not a FLEX section and are considered one of the traditional non-FLEX designations. These designations account for planned adjustments to academic calendars (like being remote after thanksgiving or spring break) that are known at the beginning of the term. Unexpected adjustments to the academic calendar are not captured by these designations. FLEX courses start the term as FLEX. No academic calendar adjustment can change a non-FLEX into a FLEX. Source: State University Database System (SUDS).





#### **NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES**

Meeting Date: April 26, 2023

**SUBJECT: Changing institutional accreditors** 

#### PROPOSED BOARD ACTION

Direct New College of Florida staff to begin this summer with the process to switch institutional accreditors from SACSCOC (the Southern Association of Colleges and Schools Commission on Colleges) to the HLC (Higher Learning Commission).

#### **BACKGROUND**

Florida Statute 1008.47 allows Florida public colleges and universities to switch from SACSCOC to a new institutional accreditor following their next reaffirmation or fifth-year review.

If we follow this default timeline, New College of Florida will begin the process after its fifth-year review in 2026. Because the process to switch accreditors takes time, waiting this long means that we will apply for initial accreditation with a new accreditor at the same time as we prepare a full decennial SACSCOC reaffirmation review (due 2030).

An accelerated timeline will benefit New College of Florida. Beginning the process in Summer 2023 will allow us the opportunity to complete the switch to a new accreditor before we reach the next SACSCOC decennial review cycle.

In addition to directing the timing of this process, the Board is also being asked to approve which of the five BOG-recommended institutional accreditors New College of Florida will apply to for initial accreditation. Based on a systemwide review of accreditation standards, an analysis of mission fit, and a careful evaluation of which potential new accreditor will strengthen institutional quality through rigorous oversight, we recommend New College of Florida apply to the Higher Learning Commission.

If approved by the Board of Trustees, New College of Florida will provide information to the U.S. Department of Education to seek approval to apply to the Higher Learning Commission.

Supporting Documentation Included: Accreditation overview document

Facilitators/Presenters: Dr. Brad Thiessen, Interim Provost

Other Support Documents Available: N/A

#### Overview

Accreditation: A peer-review process intended to promote quality & ensure continuous improvement.

Accredited institutions may distribute federal financial aid.

Historically, six regional accreditors served specific regions.

New College of Florida is accredited by SACSCOC.

1967 = initial accreditation

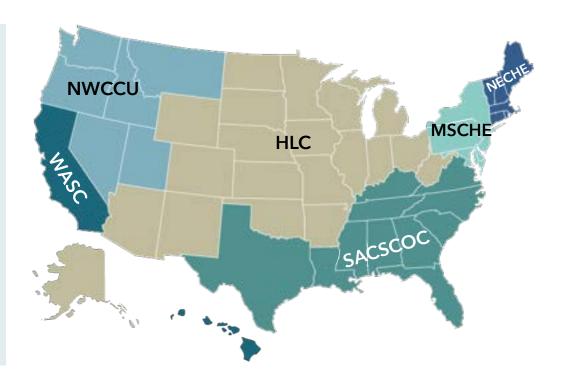
2004 = initial accreditation as standalone public

2021 = most recent reaffirmation

**Upcoming SACSCOC milestones:** 

2025-26 = Fifth-year review

2030-31 = Decennial reaffirmation review



# Florida public colleges and universities must switch accreditors

As of July 2020, the USDOE recognized the six regional accreditors (plus other national accreditors) as "institutional" accreditors. These institutional accreditors can accredit institutions outside their traditional regional boundaries.

Florida Statute 1008.47 requires Florida public colleges and universities to switch from SACSCOC to a new institutional accreditor. Schools must switch accreditors following their next reaffirmation or fifth-year review date.

The law will sunset on December 31, 2032.

This means New College of Florida must begin the process to switch accreditors following our 2026 fifth-year review.

We are free to choose any institutional accreditor recognized by the USDOE and vetted by the Florida Board of Governors. The Florida Board of Governors has identified the six (formerly regional) accreditors as being most appropriate for SUS schools.

#### We must determine:

- (1) Which institutional accreditor do we voluntarily choose for initial accreditation application.
- (2) When we will begin the process to switch to that new institutional accreditor.

# (1) Which institutional accreditor do we voluntarily choose for initial accreditation application?

The following table compares the six institutional accreditors on a variety of characteristics that will impact New College of Florida:

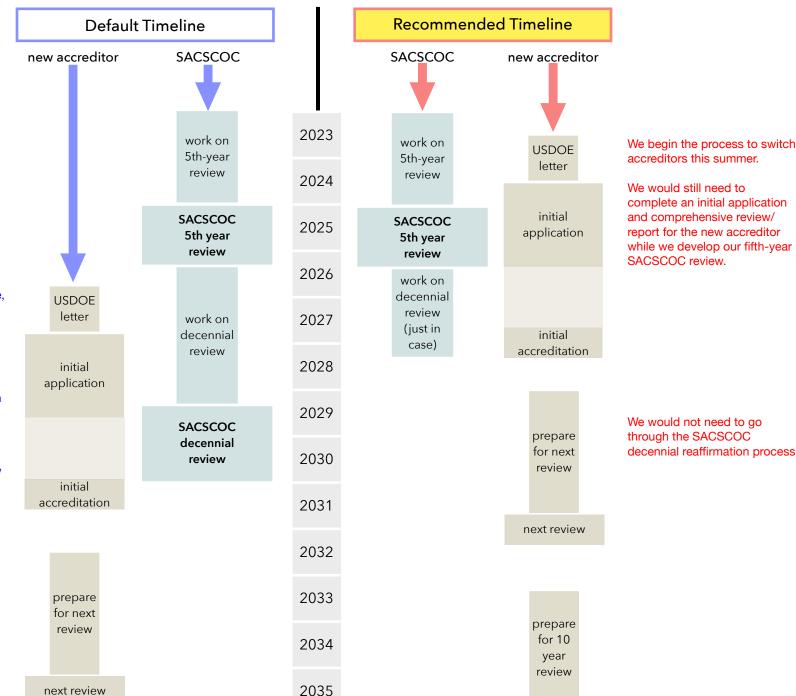
	SACSCOC	HLC	MSCHE	NECHE	NWCCU	WSCUC
% of ranked public liberal arts schools	22%	30%	39%	9%	0%	0%
% of small liberal arts schools	14%	31%	29%	5%	5%	17%
% of COPLAC (public liberal arts) schools	33%	30%	13%	17%	3%	3%
Public university representation on executive council	15%	50%	25%	0%	14%	44%
Time to transition (in months)	_	<18	23-30	8	12-24	18
Time until next review (in years)	5	4	<8>	5	3	6
Full accreditation cycle (in years)	10	10	8	10	7	6, 8, 10
Start-up fees	N/A	\$23k	\$35k	\$19k	\$21k	\$31.5k
Monitoring / reaffirmation fees	\$7,000	\$0	\$11k	\$28k	\$18k	\$26k
Total fees (one reaffirmation cycle)	\$110k	\$73k	\$150k	\$200k	\$172k	\$187.5k

HLC, the Higher Learning Commission, seems to be the best option for New College of Florida:

- We would join peer institutions (31% of small, 30% of ranked, and 30% of public liberal arts colleges are with the HLC)
- Public universities have strong representation on the HLC executive council (making up 50% of the council membership)
- The HLC offers an accelerated application process that could be completed in less than 18 months
- The HLC offers a 10-year accreditation cycle (as opposed to 6-8 year cycles offered by some other institutional accreditors)
- The HLC appears to be the lowest-cost option

Recommendation: NCF begin the process to switch accreditors to the Higher Learning Commission

# (2) When should we begin the process to switch to a new institutional accreditor?



As required by Florida Statute, we wait until 2027 to begin switching accreditors.

This results in us having to complete an initial application and comprehensive review/ report for the new accreditor at the same time we need to conduct a comprehensive decennial reaffirmation review for SACSCOC.

# Next Steps:

Prior to applying to a new accrediting agency, we must receive approval from the U.S. Department of Education.

To receive USDOE approval, we must submit information, including:

- A confirmation that we have not in the past 24 months had our accreditation withdrawn, revoked, or terminated
- The reason(s) why we are seeking the change
- An explanation of how we believe the new accrediting agency would strengthen institutional quality
- If applicable, an explanation of how the new accrediting agency's standards are more closely aligned with our mission
- An explanation showing we are not requesting a change in order to lessen oversight/rigor or evade sanctions.
- An explanation that the requested change is not motivated by a weak or deteriorating financial condition
- An explanation that our membership with the new accrediting agency would be voluntary

#### Once approved by the USDOE, we must:

- 1. Apply for membership with the new accrediting agency while maintaining SACSCOC accreditation
- 2. Receive membership from the new accrediting agency
- 3. Notify the USDOE
- 4. Maintain accreditation with SACSCOC until the USDOE has provided written acknowledgment of the change

Recommendation: NCF begin the process this summer to switch accreditors to the Higher Learning Commission

#### **NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES**

Meeting Date: April 17, 2023

**SUBJECT: Dr. Rebecca Black Tenure Package for Consideration** 

#### PROPOSED ACTION

Consideration of tenure for New College faculty member Dr. Rebecca Black.

Sections 4.5 - 4.6 of the *New College Faculty Handbook* describe the College's policies and procedures for granting New College faculty tenure. Briefly these are:

- In August, candidates assemble their evaluation file for review; letters are requested from New College and outside references. The evaluation file is made available for review by faculty within the candidate's Division.
- The Divisional vote on tenure is conducted in November; a majority of three-fourths is required for a positive tenure vote.
- The Provost's Advisory Committee (comprised of two faculty representatives from each Division) independently reviews the application and forwards a positive or negative recommendation to the Provost.
- Based on a review of the file, the Divisional vote, and the PAC's recommendation, the Provost makes a recommendation to the President, who subsequently forwards a recommendation to the Board of Trustees.
- The final decision rests with the Board of Trustees.
- If tenure is not awarded, the candidate may stand again in the mandatory year without penalty.

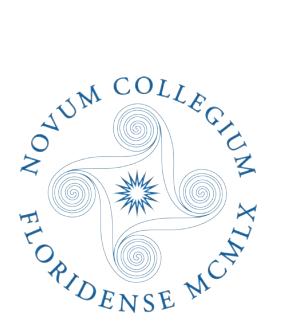
**Supporting Documentation Included:** Trustees have received relevant portions of the candidate's Tenure packet. Included are:

Candidate's Curriculum Vitae
External Review Letters
Support Letters from Students/Alumni/Colleagues
Provost's Advisory Committee Evaluation
Statements on Research/Teaching
Division Chair Evaluation
Provost's Evaluation
Interim President's Recommendation

Facilitators/Presenters: Brad Thiessen

Interim Provost and Vice President for Academic Affairs

**Other Support Documents Available:** The *New College Faculty Handbook;* in addition, the complete Tenure Packet is available in the Office of the Provost.



# NEW COLLEGE OF FLORIDA

# REBECCA BLACK

Division of Natural Sciences

Candidate for Tenure

2022 - 2023

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# Rebecca E. Black, Ph.D.

Division of Natural Sciences, New College of Florida 0 5800 Bay Shore Rd. 0 Sarasota, FL 34243

#### Education

The University of Chicago, Chicago, IL

PhD, Inorganic Chemistry, June 2018

MS, Chemistry, Oct. 2014

Professor Richard F. Jordan, Advisor

Augustana College, Rock Island, IL

BA, Chemistry and English (May 2013)

Honors, magna cum laude, Phi Beta Kappa

Professors Gregory J. Domski & Dell Jensen, Advisors

## Academic Position & Teaching Experience

Assistant Professor of Organic Chemistry, New College of Florida Division of Natural Sciences, Sarasota, FL (2018 – present)

Courses: Organic Chemistry I (F18, F20, F21), Organic Chemistry II: Structure & Reaction (S19, S21, S22), Organic Chemistry Synthesis Laboratory (S19, S20, S22), Chemical Research, Communication, and Careers (F20, S21), Organometallic Chemistry and Catalysis for Organic and Polymer Synthesis (F19, F21), contributed to COVID-19: An Interdisciplinary Approach to the Pandemic (F20), General Chemistry I (F19), Transition Metal Catalysis for Organic and Polymer Synthesis (F18)

Tutorials Sponsored: Organometallic Chemistry and Phosphine Ligand Synthesis Laboratory Research (F20, S21, F21, S22), Synthesis of Ru(II) Phosphine & Acceptorless Dehydrogenation Catalysis Research (S22), Overseeing (BIPHEP-derivative) Ru Complexes in Acceptorless Dehydrogenation Catalysis (S22), Thesis Compilation and Communication of Scientific Findings (S22), Evaluating (BIPHEP-derivative) Ru Complexes in Acceptorless Dehydrogenation Catalysis (F21), Thesis Writing and Scientific Literacy (F21), Ligand and Transition Metal Catalyst Synthesis Laboratory (F20, S21), Chemical Ecology Laboratory (S21), Organometallic Synthesis Chemistry Research (S20), Thesis Writing (F19, S20)

Independent Study Projects Sponsored: Synthesis of Phosphine Ligands for Ru(II) Acceptorless Dehydrogenation (2020, 2022), Organometallic Chemistry and Phosphine Ligand Synthesis Laboratory Research (2021), Chemical Ecology Laboratory (2021), Scientific Poetry (2021), Orthopedic Surgical Research/Shadowing Internship (2020), Air-free Organic Phosphine-Ligand Synthesis (2019), Science and Poetry: An Exploratory Writing ISP (2019)

University of Chicago Department of Chemistry, Chicago, IL

Teaching Assistant & Guest Lecturer, "Inorganic Chemistry II" (Spring 2014, 2015, 2016)

Assistant Instructor & Course Co-Creator, "Advanced Training for Teachers & Researchers in Chemistry," (Fall 2014 – Spring 2016)

Teaching Assistant, "Honors Organic Chemistry I & II," (lecture and lab, Fall 2013, Spring 2014)

University of Chicago, Chicago, IL

Teaching Mentor, "Course Design & College Teaching," Chicago Center for Teaching (Fall 2017)

Organic Chemistry Tutor, University of Chicago College Core (Fall 2015 - Spring 2016)

#### Research Interests and Experience

#### New College of Florida

- Organic/Organometallic Synthesis & Catalysis prepare new biphenyl-based bisphosphino ligands with(out) pendent bases, evaluate their Ru(II) complexes in acceptorless dehydrogenation catalysis
- Chemical Education design, implement, and evaluate (i) term-long research projects for Organic Chemistry I and II lecture courses and (ii) professional writing assignments for Organic Chemistry II laboratory for the development of information literacy, problem-solving, presentation, and writing skills

#### Graduate Research at University of Chicago

Organometallic Synthesis & Polymerization Catalysis – synthesized new (phosphinosulfonate)Pd(II) complexes, evaluated as olefin (co)polymerization catalysts; probed olefin insertions of (PO)Pd(II)-fluoride complexes & olefin polymerization mechanisms by low T NMR and DFT; characterized new compounds and polymers by 1D and 2D NMR, HRMS, XRD, GPC, and DSC.

Chemical Education - improved undergraduate education through graduate teaching assistant training

#### Publications

- Black, R. E.; Kilyanek, S. M.; Reinhard, E. D.; Jordan, R. F. Olefin Insertion Reactivity of a (Phosphine-arenesulfonate)Palladium(II) Fluoride Complex. Organometallics 2019, 38, 4250–4260. https://doi.org/10.1021/acs.organomet.9b00545
- Black, R. E. Olefin Polymerization Behavior and Reactivity of Palladium(II) Alkyl and Fluoride Complexes Bearing Phosphine-Sulfonate Ligands. Doctoral dissertation, The University of Chicago, 2018. https://knowledge.uchicago.edu/record/1618?ln=en
- Black, R. E.; Jordan, R. F. Synthesis and Reactivity of Palladium(II) Alkyl Complexes that Contain Phosphine-cyclopentanesulfonate Ligands. Organometallics 2017, 36, 3415–3428. https://doi.org/10.1021/acs.organomet.7b00572
- Dragisich, V.; Keller, V.; Black, R.; Heaps, C. W.; Kamm, J. M.; Olechnowicz, F.; Raybin, J.; Rombola, M.; Zhao, M. Development of an Advanced Training Course for Teachers and Researchers in Chemistry. J. Chem. Educ. 2016, 93, 1211–1216. https://doi.org/10.1021/acs.jchemed.5b00578

# In-Progress Manuscripts

#### \*undergraduate co-author

- Black, R. E.; Goldberg, M. J.; Alam, I.; Stryker, J.; McKenna, N.; Markham, S.; Reiter, E. Evaluation of a Ru(II) Complex Bearing Bis(diphenylphosphino)biphenyl Ligand with 2-Substituted PAr<sub>2</sub> Groups Under Alcohol Acceptorless Dehydrogenation Conditions. Fully drafted; expected submission to Organometallics during fall 2022 pre-tenure sabbatical.
- Black, R. E. Problem-solving our way to a sustainable future: An Organic Chemistry I student-driven research project centered on the UN Sustainable Development Goals. Invited book chapter, ACS Symposium e-Book 'Chemistry in Context.' Fully drafted; expected submission during fall 2022 pretenure sabbatical with final deadline March 31, 2023.
- Black, R. E. Replacing lab reports: Building professional writing instruction into the Organic Chemistry laboratory. In Progress; IRB proposal submitted; expect submission to J. Chem. Educ. in Summer 2023.

Black, R. E. Organic Chemistry infographics for building information literacy and writing skills. In Progress; expected submission to J. Chem. Educ. in Summer 2023.

#### Supervised Undergraduate Honors Theses

- "Synthesis and Characterization of BIPHEP-type Ligands and a Ru(II) Complex for Catalytic Alcohol Acceptorless Dehydrogenation," Matthew Goldberg, May 2022
- "Photoluminescent Quantum Yield of Eu<sup>2+</sup>-Doped Sr<sup>2+</sup> Borate System," William Alexander Bottorff, May 2020

#### Scientific Presentations and Invited Lectures

#### \*undergraduate co-author

- Black, R. E. "Ru(II) Complexes Bearing (Non-)Base Functionalized BIPHEP-type Ligands: Synthesis, Characterization, and Catalytic Alcohol Acceptorless Dehydrogenation Performance" ACS Spring 2022 National Meeting & Expo, March 20-24, 2022. <u>In-person Oral Presentation</u>, March 20, 2022.
- Goldberg, M. J.; Alam, I.; Stryker, J. S.; Markham, S.; McKenna, N.; Homer, D.; Black, R. E.
  "Synthesis, Characterization, and Catalytic Acceptorless Dehydrogenation Performance of Ru(II)
  Complexes Bearing BIPHEP-type Ligands." ACS Spring 2022 National Meeting & Expo, In-person
  Poster Presentation, March 20, 2022.
  - Recognized as a Finalist in the Inorganic Chemistry Division Poster Competition
- Goldberg, M. J.; Alam, I.; Stryker, J. S.; Markham, S.; Black, R. E. "Synthesis, Characterization, and Catalytic Performance of Ru(II) Complexes Bearing 2,2'-bis(diphenylphosphino)Biphenyl (BIPHEP) Derivatives." South Eastern Regional Meeting (SERMACS), In-Person Poster Presentation, November 11, 2021.
- Goldberg, M. J.; Alam, I.; Black, R. E. "Pendent base-functionalized biphenyl-derived bisphosphine ligands: synthesis and characterization." ACS Spring 2021 National Meeting & Expo, Poster Presentation, April 21, 2021; American Chemical Society National Meeting. Published to SciMeetings May 27, 2021. https://doi.org/10.1021/scimeetings.1c00373
- Black, R. E.; Goldberg, M. J. "Synthesis and characterization of biphenyl-derived bisphosphine ligands bearing pendent bases." ACS Spring 2020 National Meeting & Expo, Online, March 21-25, 2020; American Chemical Society. Published to SciMeetings Apr 29, 2020. https://doi.org/10.1021/scimeetings.0c04176
- Black, R. E. "The Impact of Organic Ligand Design on Homogenous Transition-Metal Catalyst Performance: Toward More "Green" Polymers and Organic Reactions," Chemistry, Biochemistry, and Physics Lecture Series, Florida Southern College, Lakeland, FL, <u>Invited Seminar Presentation</u>, Oct. 2019.
- Black, R. E. "Copolymerization of Ethylene and Polar Monomers Using Palladium(II) Catalysts Bearing Phosphine-Sulfonate Ligands and Designing Catalysts for Acceptorless Dehydrogenation Reactions," Natural Science Seminar, New College of Florida, Sarasota, FL, <u>Invited Seminar Presentation</u>, April 2019.
- Black, R. E. "Olefin Insertion into a Pd-F Bond in CH<sub>2</sub>=CH<sub>2</sub>/CH<sub>2</sub>=CHF Copolymerization," Graduate Student Recruitment, University of Chicago, Poster Presentation, Feb. and March 2017.

- Black, R. E. "Synthesis of phosphine-sulfonate Pd(II) complexes for the polymerization of ethylene to linear polyethylene," CHEM Chat Seminar Series, Augustana College, Rock Island, IL, <u>Invited Seminar Presentation</u>, Sept. 2016.
- Black, R. E. "Phosphine-sulfonate palladium(II) catalysts with rigid, aliphatic backbones for copolymerization of ethylene and polar monomers," ACS Spring 2016 National Meeting & Expo, Oral Presentation, San Diego, CA, March 2016.
- Black, R. E. "Comparative Reactivity of CO<sub>2</sub> with Transition Metal Alkyls," Graduate Student Recruitment, University of Chicago, Poster Presentations, Feb./March 2016 and Feb./March 2015.

## Scholarship of Teaching and Learning

#### **Public-Facing Presentations**

- Black, R. E. "Writing-Enhanced Organic Chemistry II Lab: Learning to Write in Professionally-Relevant Genres." 2022 Ohio PKAL Regional Network Meeting, virtual, Oral Presentation, Oct. 29, 2022.
- Black, R. E. "Writing-Enhanced Organic Chemistry II Lab: Learning to Write in Professionally-Relevant Genres." 2022 Florida Organic Faculty Meeting, in-person, Oral Presentation, Sept. 23, 2022.
- Black, R. E. "Writing-Enhanced Organic Chemistry II Lab: Learning to Write in Professionally-Relevant Genres." Chemical Education Division, 'High Impact Educational Practices in the Chemistry Classroom' Symposium. ACS Fall 2022 National Meeting & Expo, in-person, Oral Presentation on Aug. 22, 2022. \*\*also invited to the Sci-Mix, Poster Presentation on Aug. 22, 2022.
- Black, R. E. "Problem-solving our way to a sustainable future: An Organic Chemistry I student-driven research project." Chemical Education Division, 'Chemistry in Context' Symposium. ACS Spring 2022 National Meeting & Expo, in-person, Oral Presentation, March 23, 2022.
- Black, R. E. and Domski, G. "Leveling the Playing Field in Chemistry," Top Hat Webinar Discussion, virtual, March 17, 2022.
- Black, R. E. "Building Professional Writing Instruction into Organic Chemistry II Lab: Replacing the Lab Report." ACS Spring 2021 National Meeting & Expo, virtual, Oral Presentation, April 5, 2021; American Chemical Society. Published to SciMeetings May 27, 2021. <a href="https://doi.org/10.1021/scimeetings.1c00382">https://doi.org/10.1021/scimeetings.1c00382</a>
- Black, R. E. "Writing science news article reflections and wiki articles in organic chemistry to build student chemical literature and information management skills." ACS Spring 2020 National Meeting & Expo, virtual, March 21-25, 2020; American Chemical Society. Published to SciMeetings Apr 30, 2020. https://doi.org/10.1021/scimeetings.0c06000
- Black, R. E. and Raybin, J. "Pedagogy Toolbox," First-Year Chemistry Graduate Orientation, University of Chicago, in-person, <u>Invited Lecture</u>, Sept. 2015.
- Black, R. E., Heaps, C. W.; Kamm, J. M.; Olechnowicz, F.; Raybin, J.; Rombola, M. "Presentation Skills," First-Year Chemistry Graduate Training Course, University of Chicago, in-person, <u>Invited</u> <u>Lecture</u>, Sept. 2015.
- Black, R. E., Heaps, C. W.; Kamm, J. M.; Olechnowicz, F.; Raybin, J.; Rombola, M. "Dealing with Problem Students," First-Year Chemistry Graduate Training Course, University of Chicago, <u>Invited</u> <u>Lecture</u>, Oct. 2014.

#### Selected Internal Presentations and Workshops

- Black, R. E. and Leininger, E. C. "Chart Your Course (CYC\*) Faculty Training." \*New College of Florida's new skills-focused general education program. <u>Designed and facilitated two versions of a foursession Interactive Workshop</u>, June 23, 30, July 7, 14; July 19-22, 2021. Onboarded 37 (~38%) of New College faculty to the goals & best practices in designing and teaching CYC courses; intro to Transparent Teaching, AAC&U VALUE Rubrics, goal alignment, Backward Design, and using student reflection.
- Black, R. E. "Canvas Basics," <u>Facilitated Interactive 3-h Workshop</u>, Educational Technology Services, New College of Florida, July 28, 2020.
- Black, R. E. "Looking Forward, Glancing Back II: Identifying Best Practices in Advising," <u>Facilitated Discussion</u>, Teaching Tuesdays, New College of Florida, Sarasota, FL, Jan. 2021.
- Black, R. E., Giglioli, I.; Lopez Zafra, M.; Roy, T. "Strategies for Promoting Faculty Success," Presentation and Discussion, Teaching Tuesdays, New College of Florida, Sarasota, FL, Oct. 2020.
- Black, R. E. "Teaching using POGIL (Process-Oriented Guided Inquiry Learning)," <u>Presentation and Interactive Workshop</u>, Teaching Tuesdays, New College of Florida, Sarasota, FL, Nov. 2019.

#### Invited Panels - STEM Academia/Career Development

- "Teaching Careers in Higher Education," UChicago myCHOICE seminar series, virtual, Jan. 24, 2022.
- "Careers in Academia," Midwest Women in Science Conference, UChicago, virtual, Sept. 18, 2021.
- "CHEM 500 Alumni Panel," UChicago Department of Chemistry, virtual, April, 14, 2021.
- "Working at a Small Liberal Arts College," UChicago Women in Chemistry, virtual, March, 24, 2021.
- "Research Statements Best Practices (STEM)," UChicago Annual Academic Job Market Summer Camp, UChicagoGRAD, virtual, July, 14, 2020.
- "Working at Teaching Colleges: Perspectives from Alumni," The Chicago Center for Teaching and UChicagoGRAD, Panel Moderator, in-person, May, 2018.

#### Funding

Grant: American Chemical Society Petroleum Research Fund Undergraduate New Investigator (ACS PRF UNI): "Ruthenium(II) Complexes Bearing Base-Functionalized Bis(diphenylphosphino)biphenyl Ligands for Alcohol Acceptorless Dehydrogenation", PI: Rebecca E. Black, New College of Florida: \$55,000 (Fall 2021 – Fall 2023)

#### Professional Development Funding:

Faculty Development Fund, New College of Florida Office of the Provost:

- \$15,000 for summer research and professional development (\$5k/summer; 2019, 2020, and 2021)
- \$986 for summer JOEL NMR spectrometer instrument maintenance (Summer 2022)

New College of Florida Office of the Provost:

- \$3,500 for a team of 7 to attend the AAC&U Summer General Education and Assessment Institute, virtual (June 2021)
- Registration and travel to attend AAC&U Conferences on General Education, Pedagogy, and Assessment, online (Feb. 11–13, 2021) and Jacksonville, FL (Feb. 20–22, 2020);
   AAC&U Conference Transforming STEM Higher Education, Chicago, IL (Nov. 7–9, 2022)

#### Fellowships & Scholarships:

Department of Education GAANN Fellowship, Univ. of Chicago (2014-2016)

Edward L. Hill Student Research Assistantship in the Natural Sciences, Augustana College (2011)

#### Awards & Certificates:

College Teaching Certificate, Chicago Center for Teaching (2018)

Joan Shiu Award for Student Service, Univ. of Chicago Chemistry (2016)

Edith Barnard Memorial Award in Chemistry for Service to Others, Univ. of Chicago Chemistry (2015)

Gerhard Closs Teaching Award in Organic Chemistry, Univ. of Chicago Chemistry (2014)

ACS Organic Division Undergraduate Award - 2013, ACS Division of Organic Chemistry (2013)

#### Institutional, Professional, and Community Service

#### Institutional Service

Academic Adviser (Fall 2019 - present)

Committee Member, Writing Advisory Committee (Fall 2020 – Spring 2022)

Committee Member, Chart Your Course (CYC\*) Steering Committee (Fall 2021 - Spring 2022)

\*New College of Florida's new skills-development focused General Education program

Secretary, New College United Faculty of Florida (Fall 2019 - Spring 2022)

Academic Program Presenter, Admitted Students Day (May 2019, 2022)

Committee Member, Ad hoc S-STEM proposal planning committee (Spring 2021 - Fall 2021)

Committee Member, Chart Your Course (CYC) Implementation Committee (Spring - Summer 2021)

Academic Program Presenter, New Student Orientation (Aug. 2019, 2020, 2021)

Chemistry AOC Representative, Experience New College Academic Fair (Feb. 2019, 2020)

Committee Member, Ad hoc HHMI proposal planning committee (Fall 2019, preproposal submitted Jan. 14, 2020)

Chemistry AOC Representative, AOC Fair (~once per semester)

#### Departmental / Program Service

New College of Florida - Natural Science Division

NMR Spectrometer maintenance/trainings, organize site-visits, fill LN2/He (Spring – Summer 2022)

Co-organizer, Natural Science Seminar Series (weekly) (Fall 2020 - Spring 2022)

Search committee member, Associate in Chemistry (Spring 2022)

Organizer, facilitated AOC learning goals conversations with chemistry faculty (Fall 2021)

Search committee member, Associate in Chemistry (Spring 2021)

Search committee member, Visiting Assistant Professor in Biochemistry (Spring 2020)

Co-facilitator, on-campus Boy Scout event to earn Chemistry merit badge (Nov. 13, 2019)

#### University of Chicago - Department of Chemistry

Lead Student Organizer, Chemistry Graduate Student Recruitment (2016 - 2017)

Student Advisory Committee member, Chemistry Graduate Student Recruitment (2014 – 2017)

Committee Member, NMR Facility Student Committee (2016 – 2017)

Co-developer, Training Course for First-Year Chemistry Graduate Students (2014 – 2016)

Co-organizer, First-Year Journal Club (2014 – 2015)

#### Other Internal Service - New College of Florida Community

Organizer, weekly New College of Florida Table Top Board Game Nights (Spring 2022 - present)

Club Sponsor, New College of Florida Hoop Troupe (Spring 2022 - present)

Club Sponsor, Baking for a Cause (Fall 2019 – Spring 2021)

Academic Program Retreat, by NCF Chair of the Faculty & Provost, virtual (Jan 12 and 13, 2021)

"The New College Way" inclusive campus climate workshop, by Uneeda Brewer, sponsored by

NCF's Chief Diversity Officer and President's Cabinet, in-person (Jan 30 and 31, 2020)

Organizer, Chemistry community Demo Day and AOC Q&A (April 24 and 27, 2019)

Co-organizer, weekly New College of Florida Happy Hour, campus socials (Fall 2019 - Spring 2020)

#### Service to the Profession

Co-Presider, Division of Chemical Education Symposium: Engaging Students with Real-World Context, Spring 2022 ACS National Meeting, San Diego, CA (March 23, 2022)

Presider, Division of Inorganic Chemistry Symposium: Organometallic Chemistry: Catalysis-Late Transition Metals, Spring 2022 ACS National Meeting, San Diego, CA (March 20, 2022)

Grant Proposal Reviewer, (ACS PRF, 2021)

Peer Reviewer, The Journal of Physical Chemistry (2020)

#### Professional Memberships

American Chemical Society: Division memberships: Inorganic Chemistry - Organometallic Chemistry, Chemical Education, Organic Chemistry, Catalysis Science and Technology

VIPEr (Virtual Inorganic Pedagogical Electronic Resource)

Organic Chemistry Educational Resources (OrganicERs) faculty learning community

American Association of Colleges and Universities (AAC&U)

National Center for Faculty Development & Diversity (NCFDD)

Council on Undergraduate Research (CUR)

#### Professional Development

#### External Professional Development Training

- AAC&U Summer General Education and Assessment Institute, online (June 8–11, 2021)
- AAC&U Conference on General Education, Pedagogy, and Assessment: "Embracing the Best Emerging Practices for Quality & Equity," online (Feb. 11-13, 2021)
- AAC&U Pre-Conference Workshop: "Academic Integrity as an Outcome of Authentic Learning," online (Feb. 8, 2021)
- Quality Matters course: Designing Your Blended Course, ASYCH Moodle (July 9–23, 2020)
- NCFDD Faculty Success Program, online (May 17–Aug. 8, 2020)
- o American Chemical Society Publication's "ACS Reviewer Lab™ Course, virtual (June 4, 2020)
- AAC&U Conference on General Education, Pedagogy, and Assessment: "Reflection and Meaning-Making in Turbulent Times," Jacksonville, FL (Feb. 20–22, 2020)
- AAC&U Pre-Conference Workshop: "Making VALUE Work on Your Campus: Successful Strategies and Lessons Learned," Jacksonville, FL (Feb. 20, 2020)
- Project Kaleidoscope AAC&U Transforming STEM Higher Education Conference, Chicago, IL (Nov. 7– 9, 2019)
- AAC&U Pre-Conference Workshop: "EvaluateUR A New Approach to Support Learning from Undergraduate Research," Chicago, IL (Nov. 6, 2019)
- STEM Education Workshop, University of South Florida, Tampa, FL (Feb. 15, 2019)
- Course Design and College Teaching Course, discussed What the Best College Teachers Do by Bain, Chicago Center for Teaching, Chicago, IL (met weekly for 11 weeks, Spring 2017)
- Cottrell Scholars Collaborative Workshop: "Mobilizing the Forgotten Army: Preparing TAs for Leadership in STEM Education", Georgia Institute of Technology, Atlanta, GA (May 27–29, 2015)

#### Internal Professional Development Training

New College of Florida

- Career Design Champion program, NCF CEO, in-person (June 2022)
- Academic Publishing Workshop, online (Summer 2022)

- Writing Enhanced Course (WEC) Workshop, online (Summer 2022)
- Regular attendee of Teaching Tuesdays (~weekly, Fall 2019 present)
- Writing about Learning and Teaching in Higher Education Workshop, discussed Writing about Learning and Teaching in Higher Education Creating and Contributing to Scholarly Conversations across a Range of Genres by Healey, Matthews & Cook-Sather (5 sessions/10 wks, Summer 2021)
- Writing Enhanced Course (WEC) Workshop, discussed Engaging Ideas: The Professor's Guide to Integrating
   <u>Writing, Critical Thinking, and Active Learning in the Classroom</u> (Bean), online (5 sessions/10 wks Summer
   <u>2021</u>)
- CYC Faculty Training Workshops (two), Co-developed, co-facilitated, in-person (June/July 2021)
- o Advising Workshop (in-person Aug. 12, 2019; online Jan. 20, 2021)
- Kaltura Basics Training, online (Aug. 12, 2020)
- Academic Continuity for Flexible Delivery Workshop, ASYCH with 3 SYNCH sessions (July 13–24, 2020)
- Writing Enhanced Course (+ Online Writing Instruction) Workshop, discussed <u>Small Teaching Online</u> by Darby and <u>Engaging Ideas</u> by Bean, online (5 sessions/10 wks Summer 2020)
- Write Your Journal Article or Book Chapter in 10 Weeks Workshop, discussed Writing Your Journal Article in 12 Weeks by Belcher, online (5 sessions/10 wks, Summer 2020)
- Canvas Basics Workshop, Facilitated, Educational Technology Services, online (July 28, 2020)
- Learning Thresholds: Honoring Learning in Liminal Spaces Workshop (Feb. 7, 2020)
- ORPS Grant Development Workshop, online (Jan. 17, 2020)
- Narrative Evaluations Workshop, in-person (Aug. 16, 2019)
- First-Year Seminar Workshop, in-person (June 17-19, 2019)
- Writing Enhanced Course Workshop, in-person (June 13-14, 2019)

University of Chicago, Chicago Center for Teaching (CCT), UChicagoGRAD, myCHOICE

- Academic Communicators Network event: "Building Your Online Reputation and Expanding the Audience for Your Work," UChicago Provost & Office of Communications (May 30, 2018)
- An Insider's View of the NSF Review Process panel, UChicago Provost (May 4, 2018)
- Fundamentals of Teaching in PSD Course, CCT (Sept. 29, Oct. 6, 20, 27, 2016)
- Teaching@Chicago Conference, CCT (Sept. 22, 2016)
- Academic Job Market Summer Camp, UChicagoGRAD/CCT (July 11–12 2016)
- Workshop on Teaching Portfolios, CCT (May 12, 2016)
- Preparing Future Faculty, UChicago Franke Institute of the Humanities (May 12, 2016)
- PSD Teaching Discussion Hour: Active Engagement, CCT (Feb. 1, 2016)
- Seminar on Course Design, CCT (Jan. 25, 2016)
- Seminar on Teaching Portfolios, CCT (Jan. 22, 2016)
- UChicagoGRAD Road Show, UChicagoGRAD and myCHOICE (Jan. 13, 2016)
- Talking about Teaching on the Job Market, CCT (Dec. 7, 2015)
- College Teaching Symposium, CCT (Nov. 15th, 2015)
- Scientific Teaching: the cutting edge of STEM pedagogy, Diane Ebert-May, myCHOICE (Sept. 17, 2015)
- Preparing for the Academic Job Market, UChicago Industrial Relations (July 20, 2015)

#### Science Communication Development

- Communicating Science Workshop, Alan Alda Center for Communicating Science, Chicago, IL (March 16, 2016); improvisation activities for scientists to communicate science to general audiences
- Science manuscript editor for Boston Professional Group Editing Ltd. (2015–2016); edited ~50 pre-submission manuscripts in catalysis, material science, and nanomaterials/technology.

#### Scientific Conferences

- 26th Annual Green Chemistry & Engineering Conference, symposium: "Careers in Green Chemistry and Engineering Designed for Sustainable Use," virtual (May 20, 2022)
- Spring 2022 American Chemical Society National Meeting: "Bonding Through Chemistry," San Diego, CA (March 20–24, 2022)
- Midwest Women in Science Conference, virtual (Sept. 18–19, 2021)
- Spring 2021 American Chemical Society National Meeting: "Macromolecular Chemistry: The Second Century," virtual (April 5–16, 2021)

- ACS Cross-Division Virtual Live Content Event, Catalysis Science and Technology (CATL), Virtual miniconference, #ChemistsLive (Sept. 25, 2020)
- 24th Annual Green Chemistry & Engineering Virtual Conference, "Re-imagining Chemistry Education: Systems Thinking, and Green and Sustainable Chemistry," virtual (June 15–19, 2020)
- Spring 2020 American Chemical Society National Meeting, online content (March 2020)
- Spring 2019 American Chemical Society National Meeting: "Chemistry for the New Frontiers," Orlando, FL. (March 31–April 4, 2019)
- Chicago Symposium, "Excellence in Teaching Mathematics and Science" @ Northwestern (April 13, 2017) and @ Roosevelt University (Feb. 3, 2017)
- Midstates Consortium for Math & Science Undergraduate Research Symposium (Nov. 12, 2016)
- o ACS on Campus event: "Publishing and Communicating Science" (Nov. 7, 2016)
- 2016 Science and Engineering Talent Showcase, UChicagoGRAD (Oct. 27, 2016)
- Spring 2016 American Chemical Society National Meeting: "Computers in Chemistry," San Diego, CA (March 2016)

Webinars: The Chronicle Forum: Teaching for Inclusivity: What college leaders need to know (May 19, 2022); NCFDD Webinar: Every Summer Needs a Plan (May 12, 2022); C&EN Webinar: Power and Beauty: The Ease of Drawing Chemistry in 3D and Color (May 4, 2022); ACS Webinar: Using Storytelling to Advance Equity in Chemistry (April, 6, 2022); SLiThEr webinar: Christopher Pratt on Detangling Chemistry Education Research, Scholarship of Teaching & Learning, and Science Education (March, 3, 2022); SLiThEr webinar: Chip Narato on Covalent Bond Classification (Feb. 2, 2022); C&EN Webinar: An Introduction to JASON NMR Processing Software using a number of worked examples (Nov. 16, 2021); ACS Webinar: Bringing Systems Thinking into the Chemistry Classroom" (Nov. 11, 2021); NCFDD Webinar: Cultivating your Network of Mentors, Sponsors & Collaborators (Aug. 12, 2021); ACS Webinar: The Power of Hydrogen: From First Element to Green Energy Catalyst (Feb. 11, 2021); MIT Biology Webinar: Small molecule therapeutics, course COVID-19, SARS-CoV-2 and the Pandemic (James Bradner, Novartis Institutes, Nov 24, 2020); MIT Biology Webinar: Vaccines, course COVID-19, SARS-CoV-2 and the Pandemic (Kizzmekia Corbett, NIH, Nov. 10, 2020); MIT Biology Webinar: Insights from the COVID-19 pandemic, COVID-19, SARS-CoV-2 and the Pandemic (Anthony Fauci, NIAID, Sept 22, 2020); ACS Webinars: COVID-19 Vaccines: Progress, Challenges and Hope (Dec. 21, 2020); ACS-PRF and CUR Grants Talk (July 7, 2020); Teaching Remotely Together: Lessons Learned (June 30, 2020); How this Coronavirus is (and isn't) Different from Other Viruses (June 26, 2020); Better Communication in Digital Age: Learning to Love Brevity & Clarity (June 23, 2020); 10 Essential Scholarly Publishing Tips from an ACS Editor (June 2, 2020); The Proposal Writing Process: Practical Tips (May 3, 2020)





15 September 2022

#### Dear Committee Members:

I have reviewed the portfolio of scholarly work assembled by Professor Rebecca Black, and I write today in support of her promotion to Associate Professor with tenure at New College of Florida. Although I do not know Professor Black personally, I do possess experience and expertise in the realm of chemical education research and related scholarship of teaching and learning. Given my expertise, I have focused my review on that portion of Professor Black's scholarly contributions (specifically the projects described in the spring 2020 and spring 2021 ACS National Meeting CHED presentations and the draft of the ACS Symposium E-Book chapter). During her time at NCF, Professor Black has engaged in a series of projects with the potential for significant positive impact within the field of chemical education, at the institutional level and beyond.

Anyone who teaches chemistry understands that it can sometimes be challenging to spark students' interest in the field. Woven throughout Professor Black's work is a unifying theme of creatively engaging students in both content and activities that will serve them well not just in future courses, but also in future employment. For example, her spring 2020 CHED presentation describes activities in which students practiced skills in choosing and focusing in on a research topic, use appropriate resources to conduct research, understand how organic chemistry plays a role in current news, and contribute to a shared informational repository (Wiki). In her organic chemistry II course (spring 2021 CHED presentation), Professor Black has eschewed a more traditional lab report format, replacing it with diverse types of writing assignments including informational briefs (before carrying out lab work) and memos (reporting on the lab work they performed) to contextualize the experiments the students conducted and allow them to practice writing in different formats (formal, informal, reflection) and for different audiences. Such varied approaches can help students to understand how chemistry applies to their lives and appreciate the transferrable skills they develop through completing their course assignments.

Professor Black's scholarly products (published conference presentation slides and e-book chapter) provide thorough descriptions of the rationale, situation within the field, activities, and outcomes for the pedagogical activities described. Thus, they afford a solid foundation for any other instructors who wish to adopt and/or adapt the activities she has designed and implemented, and they demonstrate the alignment of her projects with NCF Chemistry's goals of "encourag(ing) and develop(ing) independence, scientific judgment, and a high level of performance."

The manuscripts related to Professor Black's scholarship of teaching and learning work are all still in preparation, rendering more traditional metrics of impact, such as citation count or article views, impossible to utilize. However, the draft of the e-book chapter suggests that it, along with the Journal of Chemical Education manuscripts describing the activities from the ACS National Meeting CHED presentations, will have significant reach within the chemical education community. That Professor Black was invited to contribute this chapter suggests clear relevance and importance of her work to the field. The chapter itself is incredibly thorough while remaining accessible to a wide audience, and the activity is firmly grounded in prior literature in the areas of scientific communication, context-based instruction and students' ability to transfer knowledge to new contexts, transparency in assignment design, and the importance of problem-solving and other professional skills for career development. The project addresses an area (sustainability) that the American Chemical Society has recently identified as a priority in its strategic planning, suggesting the potential for wide interest from and adoption among the community of chemistry educators once the e-book is published. The level of detail provided in the CHED presentation slides suggest that the manuscripts in preparation describing those projects will be of high interest and use to

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Dr. Mary Beth Anzovino manzovino@ggc.edu Phone: 470-389-1356 chemical educators once they are published as well, particularly if they end up, as intended, in the *Journal of Chemical Education*, one of the most prominent journals today in the field of chemical education.

Professor Black has engaged in a program of scholarship of teaching and learning in chemistry that addresses needs and can help promote student buy-in and engagement in their chemistry courses. Her scholarly products describing the various pedagogical activities include background information to situate her work within the field and make a strong case for the utility of the activities, including detailed discussions of positive student outcomes. Additionally, her works conclude with or include in some way suggestions and future directions for the projects (e.g. "Wiki Molecule Project: Future Modifications" from the 2020 CHED presentation slides), suggesting a trajectory of continual improvement and expansion.

In closing, I would like to reiterate my support for Professor Black's application for promotion and tenure at New College of Florida. Her work in the area of chemistry scholarship of teaching and learning is poised to be widely disseminated to and useful in a variety of chemical education contexts, and I look forward to reading and learning more from her manuscripts once they are published. Please let me know if you have any questions or would like to further discuss any aspect of my review and recommendation.

Sincerely,

Mary Beth anyovino

Mary E. (Mary Beth) Anzovino, Ph.D. Associate Professor of Chemistry Georgia Gwinnett College RECEIVED



101 Vera King Farris Drive | Galloway NJ 08205-9441 stockton.edu

August 15, 2022

Dear tenure file evaluators,

I am writing this letter as an external reviewer for the scholarship portion of Dr. Rebecca Black's file for tenure and promotion. I am a tenured associate professor of chemistry at Stockton University in New Jersey. Stockton University is a medium-sized public, predominantly undergraduate university, where there is an emphasis in the importance of faculty-mentored undergraduate research. I currently have an active undergraduate research program in organometallic chemistry. While there are obvious dissimilarities between our two institutions, as an organometallic chemist at a public PUI, I am well-equipped to judge the quality of the scholarship portion of Dr. Black's file. Dr. Black and I also share very similar research interests.

I have had the opportunity to thoroughly review Dr. Black's scholarship materials. First, it is clear that she is committed to a high-impact undergraduate research program given the active involvement of her students in the research process. She has developed an active and externally funded research program in synthetic and catalytic organometallic chemistry, focusing on the application of diphosphine ligands in ruthenium-catalyzed dehydrogenation reactions. In my view, the topic of her scholarship strikes an excellent balance of building upon an established field within organometallic chemistry and introducing novel approaches/ideas. I find that this balance is important in undergraduate research programs so that vital progress can be made despite limitations in the experience of the personnel performing the research and the limited time available to focus on scholarship for the professor. Dr. Black has also been highly engaged in chemical education research, integrating her teaching and scholarship.

Dr. Black and her students have made five presentations at national and regional American Chemical Society meetings. These conferences are the premier scientific meetings within our field and provide opportunity for national visibility among other researchers in the discipline. Therefore, her focus on submitting abstracts for these conferences and presenting with her students is highly commendable. Dr. Black has also had a proposal funded from the American Chemical Society Petroleum Research Fund (Undergraduate New Investigator). These grants, specifically the Undergraduate New Investigator Awards, are designed to provide seed money for early career faculty at PUIs. The proposal is peer-reviewed by experts in the field. Therefore, its successful funding further corroborates the quality of Dr. Black's research topic and research plan.

Dr. Black has had one accepted manuscript so far at her current appointment, which appears to be largely based on her graduate work. Despite that, it seems that she has certainly been involved with finishing that study and preparing the manuscript while at NCF. At the time of my review of her materials, she has multiple manuscripts in progress with timelines for when these manuscripts will be submitted. Given my knowledge of the topic, I am most

qualified to discuss her in-progress manuscript from the organometallic chemistry portion of her scholarship. Before doing so, however, I do want to comment briefly on her chemical education research.

Dr. Black's emphasis on developing real-world applications for the Organic Chemistry I course and focus on improving writing and research skills are laudable. Having also taught Organic Chemistry I, I have found that many students view the course as a barrier they must overcome rather than an area of chemistry that has substantial importance. Therefore, the inclusion of these various projects will improve student engagement and interest and ultimately help students better learn the material. I think Dr. Black has leveraged the benefits of a small, liberal arts college (e.g., small class sizes, closer relationships between students and instructor) to make important changes to the organic chemistry curriculum. The type of chemical education research that Dr. Black is pursuing is well inline with what I would expect from a faculty member at an institution such as yours. From her tenure file materials, Dr. Black clearly has expertise in this area, and it demonstrates a commitment to applying her scholarship to her teaching.

Regarding her progress on the organometallic chemistry research project, a few general comments are in order. First, I will note that synthetic chemistry projects such as hers that involve undergraduate students have many barriers to progress. Once a viable synthetic route is determined, the first step is being able to actually make the target compound, even in low purity. A synthetic chemist will generally need to optimize the synthesis to improve the yield and purity of the target compound. This involves making changes to the reaction conditions. Then the compound must be purified, which involves its own set of optimizations. Finally, the pure compound is fully characterized using a range of analytical techniques. I mention all this because Dr. Black's target ruthenium complexes are the result of several intermediate syntheses along the way. Once these target ruthenium complexes are made, one may discover that the complexes are not active catalysts, which would result in developing new target complexes and essentially starting the process over. At the pace of research at a PUI and the fact that research was halted during the early stages of the pandemic, it is highly commendable that Dr. Black and her students have made sufficient progress to be at the stage of preparing a manuscript for Organometallics. This journal is one of the leading journals for organometallic chemistry internationally.

Having read a draft of the manuscript, I believe that submission in fall 2022 seems reasonable with Dr. Black's upcoming sabbatical. From what I can judge of the manuscript so far, Organometallics as a target journal is an appropriate choice. The quality of the research described is very high, and the manuscript is very well written. The choice, execution, and analysis of the experiments are very good and support that Dr. Black is a very knowledgeable researcher and that she is overseeing first-rate research by her students. My only suggestion/comment from what I have read of the manuscript so far is that it would be interesting to see the results of the acceptorless dehydrogenation reactions in open vessels since this would facilitate the release of the hydrogen by-product.

Based on my evaluation of the scholarship portion of her tenure file, I believe that Dr. Black is meeting or exceeding the standards for tenure and promotion in scholarly and professional activities (4.6.2).

If you have any questions, please do not hesitate to contact me.

Sincerely,

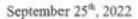
Steven E. Kalman, Ph.D.

Associate Professor of Chemistry

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Dear Tenure Committee,

I am writing provide my evaluation of Dr. Rebecca Black's research and scholarship. In review of her summary and documentation, she has made great strides in her scholarship with undergraduates, which includes on major publication and some publications in the works. Due to the nature of her field and that she is only working with undergraduates, I would say that the level of work is in line with others in our field. The quality of the article entitled "Olefin Insertion Reactivity of a (Phosphinearenesulfonate) Palladium(II) Fluoride Complex" is excellent and is in an excellent journal - Organometallics. The article is though and Additionally, Dr. Black's presentation record is good, noting that I would expect a slight decrease in presentations in 2020-2021 due to COVID-19. The work with students especially with those translating to thesis work is commendable. A faculty being able to obtain internal funding three times is great, but the external funding is excellent and her acquisition of those funds for "Ruthenium(II) Complexes Bearing Base-Functionalized Bis(diphenylphosphino)biphenyl Ligands for Alcohol Acceptorless Dehydrogenation." from ACS (Petroleum Fund) is at the level of similar peers.

Dr. Black has made some development in the field of Chemical Education. One of the aspect of our role as faculty is to provide quality and relevant education for our students. Her work on laboratory report reform and using the UN SDGs for projects in Organic Chemistry are hot topics in our field now, and so her work in those efforts are timely. To be asked to write an ACS book chapter is an honor not everyone gets – it is typically by invitation only. This is often based on external observation of your work in an area.

I cannot judge whether the number of publications and grants is acceptable for your institution. I also can say for I do not know whether publications with a faculty's doctoral advisors or at the start of their academic career is acceptable. However, she should have a book chapter and another publication out soon, which would account for those if that were an issue. I can attest that the timing of Chemical research both in Organometallic and Chemical Education is slower than some fields due to the way that data is often collected and analyzed, so this pace when only working with undergraduates is normal.

Based on my review of Dr. Black's documentation her scholarly work is on pace with others in her field working with undergraduates. Thank you for asking me to review this documentation.

Respectfully,

Deborah Bromfield Lee, Ph.D.

Associate Professor of Chemistry

FL-ACS Chair

Florida Undergraduate Research Association Board Member

Pre-Pharmacy Coordinator

Phi Lambda Upsilon National Secretary

Dept. of Chemistry, Biochemistry and Physics

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August 30, 2022

#### To Whom It May Concern:

I have been charged with reviewing the scholarship of Dr. Rebecca Black of the Natural Sciences Division at the New College of Florida (NCF). This letter will be used as part of her tenure review during the 2022-2023 academic year. The letter we be one part of a package considered by the institution in this process. I am an inorganic chemist with a specialization in organometallic chemistry at a liberal arts PUI institution with a focus on undergraduate research. While Professor Black is hired as an organic chemist, her scholarship is in organometallic chemistry, and therefore I am qualified to review her laboratory scholarship. I am also part of a group (IONiC – the Interactive Online Network of Inorganic Chemists) dedicated to improving the teaching and learning of inorganic chemistry. While I may not be best qualified to review the specific content of the materials in Professor Black's educational research, I am well-aware of best practices and can review the quality of her educational scholarship. To the best of my recollection, I have met Dr. Black and we have had minimal interactions, but nothing near substantive enough to recluse me from performing this review.

Dr. Black concludes her overview of laboratory scholarship with a COVID impact statement. I assume that is recently adopted institutional policy to include such a statement in this document. But I feel it must be addressed first. Obviously, the pandemic has been an incredibly horrible event for the entire world. But this review is focused on college faculty, and while it has certainly been difficult for all of us, I can only imagine just how trying it has been on pre-tenure colleagues that have had to endure this period in history. While there is no good time for a pandemic, hitting during the second year of the start of a new position is especially challenging. Losing that summer of research and having to adapt to remote instruction are unexpected additional complications that certainly hampered overall research productivity for anyone in this position. All of this makes tenure reviews for the colleagues that have had to deal with this even more complicated than the normal process. I completely agree with Professor Black that working alone would not have been safe. She essentially had to start her lab, shut it down for a prolonged period of time and then start her lab back up again. Given what by my standards is a very short period of time between starting a position and applying for tenure, the impact of COVID is even more substantial.

By my count, Professor Black has one publication based on laboratory work during her time at the institution. This publication is based on work done during her Ph.D. at the University of Chicago. I will admit to some trepidation when I first saw this as I would typically hold such a publication in low regard with respect to evaluating a candidate. However, I greatly appreciate that Professor Black took the time to clearly describe the work she did with regard to this paper while at NCF. While it still not her own independent work, Professor Jordan is the corresponding author, it is a high-quality publication in an excellent journal. That she was able to write the paper, participate in the computational aspects of the work, and deal with revisions is certainly commendable.



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In addition to that publication, there was also a manuscript in preparation. This work is clearly work done by Professor Black and her students at NCF and as such serves as a better indication of her own abilities as an independent scientist. There is still a little bit of work that needs to be done (at least as of the time it was uploaded) for this manuscript to be submitted. Professor Black mentions her intentions to submit it to *Organometallics*. From personal experience and conversations with others I would say that journal is not particularly friendly to chemists at PUIs. That is in no way a judgement of the quality of the work, but more of a word of encouragement should it be rejected by that journal.

This manuscript describes the synthesis, characterization and coordination of a new bidentate phosphine ligand. Were I reviewing this manuscript for publication, I would certainly comment that the introduction is far too long for the amount of original work and that the introduction could use a figure or two to help the reader visualize some of these other ligands. The results and discussion states that "similar routes for 1 and 2 have been reported previously". How similar are the routes and are they better or worse than what is outlined in this manuscript? The thoroughness of the NMR characterization is excellent and appreciated, but the discussion of it was a bit excessive, especially for compound 5. I also liked that Professor Black detailed the failed reaction with Fe(acac)3. Reporting negative results used to be considered somewhat taboo, but with modern machine learning, there is an increased emphasis on reporting negative results. 'No matter how good the idea, some things just do not work in practice' is a burden borne by all synthetic chemists. It is great that they were able to get two crystal structures to include, it is just unfortunate neither of them was of 5. It is also unfortunate that the compound does not appear to be effective as an AAD catalyst. Professor Black has tried a number of different experiments with compound 5 and suggested some interesting and appropriate ligand modifications that are ongoing. I certainly wish her and her students the best of luck in making and testing these new ligands. Overall, this manuscript is an unfinished symphony. There is some really creative and interesting work that has been done. From that work new questions have been generated and the foundation for trying to answer those new questions is forming. The work shows great potential to be interesting, publishable and engaging. It has just been severely hampered by the pandemic.

Professor Black has actively been presenting her scholarship at American Chemical Society (ACS) meetings. While students are listed as co-authors, it is not clear if the students presented any of these or not. There are certainly avenues to do so, however the pandemic has certainly made conference travel more complicated for faculty, let alone undergraduate students. By my count there are three posters and one talk from ACS national meetings and one poster from a regional ACS meeting that have been presented in the INOR division. This is certainly a commendable level of engagement with these meetings. Personally, I would say that her posters are a bit 'wordy' but overall, they do a nice job of conveying her research.



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The remaining materials for review are publications more related to educational research. This included an e-book chapter for an ACS Symposium. In this chapter, Professor Black describes a new project that was implemented in the Organic Chemistry I course at NCF. Although also incomplete, additional data analysis is implied at the end, it describes a very interesting and well-conceived learning experience for students. The overall project from conceptualization to implementation is thoroughly described. It really is an excellent activity for students getting them to actively engage with the material and present what they have learned. This type of project is not being done at schools I am familiar with, but it should be. I think the manuscript is missing two things. First, a little more data analysis which Professor Black has already recognized. Second, reflective section on lessons learned and possible modifications for the future would certainly be appreciated. While student feedback is certainly valuable, the faculty perspective is equally valuable. I look forward to reading the finalized version of this chapter in the future.

In addition to the previously mentioned posters and oral presentations on laboratory research, Professor Black has also actively engaged at ACS meetings if the Division of Chemical Education (CHED). At the time of this review, she will have given four talks within this division all focused on changes she has made to the Organic Chemistry curriculum at NCF. I especially found the talk on replacing laboratory reports to be quite excellent, and that is just from reading the slides. Grading regular old lab reports is certainly the bane of most chemistry faculty. Professor Black outlined a very creative solution that helps students develop transferable skills and gets them more engaged with the material.

The final items for consideration in this package are likely the most significant. In particular, the ACS-Petroleum Research Fund grant. While the internal grants are certainly nice, the external grant is extremely significant. To be awarded this grant, Professor Black's proposal was reviewed by fellow chemists. Those reviewers are then discussed by a committee of chemists who choose which proposals to recommend for funding. The Board of Directors then has final say in that process. To receive this funding, Professor Black need significant enough preliminary results and a wellconceived research plan that her peers deemed worthy and achievable. I agree with that assessment. In Figure 4 of the proposal, Professor Black outlines the new ligands that she intends to make. These ligands have substituents that will potentially eliminate some of the problems she found with ligand 1 in this figure. Just making the new ligands and coordinating them to a metal will be interesting enough and could serve as a paper. Ideally, they will find the ruthenium complexes she proposes to prepare have applications as AAD catalysts. However, even if they do not work in that system, she will have prepared new bidentate phosphine ligands. There are numerous other possible metal complexes she could prepare with these ligands, meaning the possible applications are nearly endless. There is high-quality science to be done here for certain and it is nice to see that it was recognized by a funding agency.

From the materials I have reviewed, I gather that Professor Black is a dedicated member of the faculty with a goal to give her students the best learning experience possible. Be that in the



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classroom or laboratory. She has had to deal with unprecedented circumstances during the most stressful and vulnerable part of any faculty career. But she has admirably found ways to keep her laboratory scholarship moving forward while also making a lasting impact on the organic curriculum at NCF (and likely other institutions). She has actively engaged students in her scholarship, has presented it at ACS meetings, is on the cusp of her first independent publication and has secured external funding to support her work. All of this strikes me as hallmarks of a person that NCF would want as a member of their faculty.

Sincerely,

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Chip Nataro

Marshall R. Metzgar Professor of Chemistry

Head of the Department of Chemistry Lafayette College

> Easton, PA 18042 nataroc@lafayette.edu



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Dear Dr. Gilchrist,

I am pleased to write this letter of evaluation, reviewing the scholarship of Assistant Professor of Organic Chemistry, Rebecca Black. I have known Dr. Black for approximately four years, mostly through interactions regarding a peer-reviewed book chapter she published in an American Chemistry Society symposium series book for which I was the editor. While I am not an organic chemist, as a chemistry department chair at a small liberal arts honors college similar in size to New College, I feel qualified to evaluate Dr. Black's work. After reviewing Dr. Black's portfolio of work, I believe she has clearly met or exceeded the criteria for professional development as listed in the New College faculty handbook provided with this evaluation request.

Scholarship in chemistry and biochemistry at an undergraduate institution has unique challenges that may not be widely understood outside the field. The most common model for scholarship at chemistry departments of all types (graduate, PUI, etc.) nationwide, is one in which a faculty member designs projects that have components which one or more students can explore via directed research. Due to the nature of chemical and biochemical research, completion of these projects may require multiple years. This model is favored at the undergraduate level because mentored research experience is cited as one of the highest impact practices for student success. Dr. Black's CV describes an active scholarly research agenda as described in the "Scholarly and Professional Activities" of the New College handbook. She has one publication in a refereed journal (Organometallics), a number of pedagogical publications well on their way towards publication, a great number of conference presentations, many of which include undergraduate students, and a prestigious grant award. Through these activities, Dr. Black has proven herself a substantive member of both her local and national chemistry communities.

Dr. Black's work, "Olefin Insertion Reactivity of a (Phospine-arenesulfonate) Palladium (II) Fluoride Complex", published in Organometallics, is an impressive accomplishment and represents a high-quality paper in a respected peer-reviewed journal. This paper required a great deal of meticulous and challenging synthetic work, as well as subsequent analyses via Electrospray mass spectra (ESI-MS). The paper highlights her interest in basic research, and represents interesting and valuable advances in our fundamental understanding of reaction mechanisms.

The scientific merit of Dr. Black's research is further validated by the awarding of significant external funding for her own research program. Most notable, is the award from the American Chemical Society Petroleum Research Fund (ACS-PRF). The ACS-PRF grant is an incredibly prestigious grant that has played a major role in the early stages of many careers. Nobel Prize winner, Robert H. Grubbs, attributes his prize winning line of research to its early beginnings in the ACS-PRF award. Many new faculty at all levels of institutions apply for these grants and success in funding provides a first indication of the future of a young faculty's success. The fact

that Dr. Black has been able to earn such a grant is a clear indication of the quality and importance of her research.

It is abundantly clear that Dr. Black is engaging undergraduates in meaningful research and scholarship, and has ongoing research projects at the frontier of organic/inorganic synthesis and homogeneous catalysis chemistry. She, and her students, have regularly been attending and presenting meaningful results at national, regional, and local meetings. Additionally, Dr. Black is deeply involved in the science of pedagogy through her work on the scholarship of teaching and learning. I read with interest the in-progress ACS Symposium series book chapter "Problem-solving our way to a sustainable future: An Organic Chemistry I student-driven research project." This chapter describes a three-part, scaffolded literature-based project, in which students explored the United Nations Sustainable Developmental Goals. Through this project, students have the opportunity to develop professional skills such as problem solving, information literacy, and oral/written communication. Based on the comprehensive nature of this project, the students involved received top-notch training in interdisciplinary scientific research and I have no doubt that they have developed the professional skills used by chemists in the "real world." Students with such comprehensive training in these skills are at a great advantage when they graduate and move on to pursue a graduate degree or a job in industry.

In summary, Dr. Black has formulated a research program that is of scientific interest, she has pursued and won external funding for her research from highly competitive funding agencies, and has had admirable success in the publication of her work in respected journals within her pre-tenure period. Importantly, her research program has been used as a vehicle to teach the New College undergraduates the art of research and inducted them as members of the wider scientific research community. Research done without the involvement of students misses the larger goal: to graduate students well-versed in modern scientific research whom are ready to launch their careers after college. I feel that Dr. Black's scholarly activity embodies the ideals of the teacher/scholar model of faculty at undergraduate institutions, and that evidence for sustained scholarly work in the future is strong. In terms of scholarship, she has exceeded expectations and I am happy to strongly recommend her for tenure and promotion.

SEP 3 0 2022

If you have any questions please feel free to contact me.

Sincerely,

Kelly Y. Neiles

Chair and Associate Professor

Department of Chemistry and Biochemistry

St. Mary's College of Maryland



Professor Sandra Gilchrist, Chair Division of Natural Sciences New College of Florida Sarasota, FL 34243

#### Dear Professor Gilchrist:

Per your request, I am providing here an external evaluation of the scholarship portfolio of Assistant Professor Rebecca Black as she stands for promotion and tenure. I will start by confirming that I have no prior professional or personal relationships with Professor Black. I myself am an Associate Professor of Chemistry at Albright College in Reading, PA. Albright is small liberal arts college of approximately 1300 undergraduates and I reside in the Department of Chemistry & Biochemistry, an American Chemical Society certified department with seven tenured or tenure-track faculty. Like Professor Black, I work with undergraduate students to make rationally designed molecules that contain transition metal ions at their cores, and to examine their function in reactions. I therefore feel I can relate well to Prof. Black's research and scholarship program and am happy to offer my perspective in aid of your processes.

Professor Black has accomplished a significant amount of work with undergraduate students in the short, and pandemic-affected, time she has been at New College. By my accounting of her CV, she has been an Assistant Professor at New College for only four years, at least one summer of which was significantly disrupted by COVID-19. (Summers are often the most productive time for chemists to work with undergraduates, so this was likely a substantial disturbance, though it looks she made the best of it by writing a grant proposal that was eventually funded.) This puts her in a somewhat unusual position relative to candidates standing for tenure at other comparable institutions, where at least five years of work is often considered and many of which offered tenure clock extensions in light of the pandemic hardships. Nevertheless, in this time Professor Black has established herself as a productive researcher who engages her students and contributes to the broader knowledge in the field of homogenous catalysis and in the teaching of science and chemistry. I will explain the features of Professor Black's program that lead me to these conclusions.

First, Professor Black has demonstrated that both halves of her research program (catalysis and pedagogy) are of interest to the broader scientific community. Her homogenous catalysis program was recognized by her successful application for an American Chemical Society (ACS) Petroleum Research Fund award. These grants are awarded to roughly the top 20% of applicants following peer review and evaluation by discipline specific panels. Securing one of these awards is a sign that the community values your potential contributions to the field, finds your ideas creative and innovative, and believes that you have the expertise and resources to carry out the work. From my review of her grant application, I would have to agree.

Professor Black's contributions to the scholarship of teaching and learning have also been well received by the field. This is evidenced by her invitation to participate in the ACS Symposium Book Series with an invited chapter on developing problem solving and information literacy in Organic Chemistry I through exploration of the United Nations Sustainability Development Goals. Moreover, Professor Black had a poster on this topic selected by the Division of Chemical Education for a Sci-Mix presentation at the Spring 2020 National ACS Meeting. Sci-Mix is an interdisciplinary, invited poster session where the top 10% or 20 posters, whichever is greater, from each Division of the Society are invited to participate. To have one's work selected for this forum is a sign that it will be of broad interest to the chemical disciplines and represents the best of the field. Her other scholarly work on incorporating Wikis, infographics, and professional writing into the Organic Chemistry curriculum goes well outside the normal boxy curriculum of traditional Organic Chemistry courses and provides innovative ideas that could be incorporated into a variety of science courses and that I look forward to reading about when these works are published.

A key feature of developing a research program in chemistry at an undergraduate college is the ability to train and engage students in the practice of chemical research. From what I have read about NCF, this is indeed seems an expectation of your college. In this regard Professor Black has been demonstrably successful. One thing that stands out to me is that she has had undergraduate students give presentations at National ACS Meetings every spring for the past three years. These are important opportunities for undergraduates to engage with the broader field and put their communication skills to the test. The National Meetings are bustling affairs with many opportunities for students in networking, professional development, and to put the communication skills Professor Black so values into practice. It is also noteworthy that of Professor Black's student poster was chosen as a finalist for the *Inorganic Chemistry Poster Competition*. This is a yet another sign that the work she is doing with undergraduates is valued original research in the field.

I would also like to add that working with 11 unique students likely requires Professor Black to engage in a lot of hands-on training of these students to teach them the fundamentals of research in synthetic chemistry, which likely goes beyond most course-based lab experiences. The safety protocols and Schlenk techniques required for her research program are advanced and valuable skills for students to learn. The student outcomes described in footnote 5 of her documents supports that her students are well-trained and ready for a variety of careers, including in excellent Chemistry graduate programs.

If there is one aspect of Professor Black's portfolio that is thin, it is that many of the projects are sitting just short of being published. Several manuscripts are listed in her documents as being "in preparation" or "to be submitted in the Fall 2022 semester." For this reason, there is little completed work that has been subjected to a rigorous peer review process. The one peer reviewed manuscript published during Professor Black's appointment at NCF originated mostly from work completed during her PhD program. As alluded to earlier, it would be my presumption that the primary reason for having much work in the not-quite published stage is the shortened, and pandemic affected, time-frame associated with this application. The advanced stage manuscripts that are included in the portfolio, as well as Professor Black's continual contributions to the field via many national conference presentations from her and her students, capped off by a successful ACS-PRF application, leave little doubt in my mind that she has successfully established a meaningful program of research that is contributing the body of knowledge in the field.

Best regards,

Nicholas A. Piro, Ph.D.

napr

Associate Professor of Chemistry

Department of Chemistry & Biochemistry

Albright College

Reading, PA 19604

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September 29, 2022

From: Diana B Butsch

1163 Old Fort Dr.

Tallahassee, FL 32301

To: Dr. Sandra Gilchrist

Professor of Biology and Marine Science

Chair, Division of Natural Sciences

Division of Natural Sciences, HNS E171

New College of Florida

5800 Bay Shore Rd.

Sarasota, FL 34243-2109

Dear Dr. Gilchrist.

I am one of Dr. Rebecca Black's former students. I took Organic Chemistry I and II and organic chemistry II lab with her as well as worked as her TA and research assistant for an ISP.

Organic chemistry is a very challenging subject to learn, but I found that Dr. Black's teaching methods helped me get a grasp on the subject. Dr. Black had a lot of real-world examples and fun activities relating to the topic of the lesson. She also used a lot of comics to illustrate the reaction mechanisms we were learning about. To this day I remember the difference between a Sn1 and Sn2 reaction because of a cat comic. I also really enjoyed our recitations. We would be broken up into groups to tackle a short quiz. I found it especially helpful to discuss the material with my peers because explaining it to another person helped me remember it better. We also would go over the answers and any question the class struggled on we would go over in more detail. I thought it was a good way to go over topics that we weren't grasping yep. Whenever I was struggling with a topic in class, I found Dr. Black's office hours to be extremely helpful. She is good at one on one tutoring and finding ways to explain a topic so that it makes sense to you. There were also snacks and tea, which was much appreciated.

One of my biggest pieces of advice I would give to students when I was a TA for General Chemistry I, was make use of Dr. Black's office hours. If I couldn't help them with the material they were confused on, I was sure that Dr. Black could. I had a really good experience working as a TA, the work was split up between 3 TAs, so I never was overwhelmed with work on top of

school. I also worked with Dr. Black during ISP in 2019 as a lab assistant. Even though my AOC was Marine Biology, the experience I gained from working in the lab has helped me greatly in recent years. The ISP required me to learn a lot of new techniques in a short period of time and Dr. Black was patient with me as I learned how to do them properly. My current job as a lab technician at the Florida State University Coastal Marine Lab requires me to adapt to a lot of new skills in a short period of time. Working in Dr. Black's lab for ISP gave me the experience I need stay on top of all the new material being thrown my way.

Outside of class and work, Dr. Black also ran some extra events that I really enjoyed. She set up a tie-dye event, a science Saturday, and made us ice cream with liquid nitrogen. It's easy to get bogged down with the class material and forget why we even wanted to study science in the first place but having fun little events like that reminds me why I wanted to peruse a science degree. After events that had food, Dr. Black would go around and offer the extra food to students studying in Heiser. She is a very kind person that really wants everyone to succeed in what they are doing and is willing to help in what ever way she can. Dr. Black is still one of my favorite teachers, her lesson plans and teaching style really resonated with me and she provided quality offices hours and advice. For these reasons, I recommend Dr. Black for tenure so she can continue to give a quality education to students like me in the future.

Sincerely,

Diana B Butsch

Lab Technician; Florida State University Coastal Marine Lab

New College Graduate 2022

hiam & Kutsel

Imran Alam 5528 Palmer Circle, Unit 205 Bradenton, FL, 34211 (512)-576-7910 imran.alam19@ncf.edu

To the Office of the Provost, PAC members, & whom else it may concern,

I am writing to strongly recommend Dr. Rebecca Black for tenure and promotion to the rank of Associate Professor of Organic Chemistry in the Division of Natural Sciences at New College of Florida. As her current student, advisee, and research assistant, Dr. Black exemplifies every characteristic of a remarkable professor and person.

In short, Dr. Black has been my mentor and role model. I have had Dr. Black as a professor in General Chemistry I, Organic Chemistry I & II, and Organometallics & Catalysis. In addition, I conducted my first ISP with her, worked in her laboratory since February 2021, and she is my thesis sponsor.

As a student, her classes are more challenging and require more work than most New College classes. I say this only to reveal that Dr. Black understands the perfect balance between overworking her students and stimulating their growth. She has the ability to transform challenging, complex information into fun, interactive activities. Similarly to my professional tennis career, Dr. Black has continued to push me, positioning me to succeed and learn from my failures. I never thought I was very intelligent or "good" at learning. However, through the support of Dr. Black, I have overcome this mindset.

She always shows the utmost professionalism and willingness to make her students' success a priority. I have experienced and seen her selflessly adjust her busy schedule to accommodate students. She genuinely values each student's perspective and feedback, as seen by her willingness to modify her teaching style and plans to meet the needs of every student. Dr. Black, without a doubt, has been the most incredible professor I have had throughout my academics.

In addition to Dr. Black's interactions with New College's community, she is focused on the school's success and development. For example, she regularly engages with the community by creating a study snack and tea cart, baking delicious desserts for her class, or hosting weekly board game nights in the library. At the Spring 2022 American Chemical Society Conference, many respected professors praised her for being able to teach undergraduate students advanced organometallics and catalysis chemistry. Lastly, this past summer she assisted a New College alumni by instructing young female teenagers in chemistry laboratory experiments and encouraging them to pursue a career in science.

As a mentor, Dr. Black has always gone above and beyond to help me outside class. Whenever I needed assistance, she would always help or find someone. For example, after presenting my orthopedic spine research at Eurospine, the conference's affiliated journal requested that I write a paper by the end of the week for publication in their journal. Dr. Black helped me write my first paper quickly, even though she had to finish our laboratory research poster. In addition, she introduced me to her partner, Austin, who helped me with the statistical analysis and allow me to better show the impactfulness of my research. I could only complete this task because of Dr. Black.

Whether it be: giving me her cat's old toys when I first got a kitten, baking my favorite ginger snaps for my birthday, taking her research students out for dim sum to celebrate successfully synthesizing a new compound, or advising me on personal matters, she always puts others first. I understand these examples may not portray Dr. Black as a professor, but being a professor entails more than just being able to teach a class. The most promising professors are most passionate about connecting with their students and helping them achieve their potential. I believe Dr. Black's innate selflessness and ability to connect with others best illustrate why she has been nothing less than an extraordinary professor and person.

As stated prior, I strongly recommend Dr. Rebecca Black for tenure and promotion. She has earned and deserves this promotion, and New College of Florida is lucky to have her. Please do not hesitate to contact me for more information or questions. Thank you all for your time.

Sincerely,

SA

Imran Alam

Sandra Gilchrist
Professor of Biology and Marine Science
Chair, Division of Natural Sciences
Division of Natural Sciences, HNS E171
New College of Florida
5800 Bay Shore Rd.
Sarasota, FL 34243-2109

I am writing this letter to express full support for Dr. Black for tenure and promotion to Associate Professor of Organic Chemistry in the Division of Natural Sciences at New College of Florida. I had the pleasure of meeting Dr. Black at her teaching demonstration when she was first applying to work at New College. Her teaching style immediately struck me as clear and engaging. In addition to her outstanding teaching demo, the lunch with students afterwards made her really stand out from everyone else. Dr. Black made a huge impression on me and the other students that attended from the very beginning. It was clear that she was not just looking to teach chemistry to a room full of students, but that she was prepared to collaborate with students in a way that would truly impact them. While her credentials demonstrated that she could do well in any teaching position, her engagement and excitement showed that she would really excel in the unique environment at New College. I was thrilled when I learned she had accepted the position to join the New College Community. When she began teaching at New College, it became clear right away that she was a great fit.

Dr. Black began working at New College in Fall of 2018, which was the start of my fourth and final year at New College. Although our time at New College only overlapped for one year, she had a profound impact on me in that short time. I took Dr. Black's class Transition Metal Catalysis for Organic and Polymer Synthesis in Fall 2018. I also worked as Dr. Black's teaching assistant for Organic Chemistry Lecture 1 and 2 in Fall of 2018 and Spring of 2019. Additionally, she was a prominent member of my thesis committee, and instrumental in advising me throughout my thesis year and graduate school applications, and continues to be a major source of support for me today.

I can say with full confidence and complete sincerity that Dr. Black's Transition Metal Catalysis for Organic and Polymer Synthesis class prepared me for graduate school better than any other class, project, or even research program that I completed in undergrad. From the very first day, it was clear that she was extremely devoted to her students and went above and beyond with the effort that she put in to helping us succeed. She provided detailed information for the entire semester. She prepared clear, well thought out notes, which she provided at the beginning of each class. Then, she would structure her class as an interactive workshop where she would work through the notes while asking relevant and engaging questions to develop our understanding of the material. Our weekly problem sets would ask questions that were challenging, but fair. The class projects focused on primary literature and helped tremendously on improving our ability to select, read, and understand primary literature in the field. The structure and methods of the class was very effective.

In addition to the structure of the class, the material she taught was more applicable than a lot of the other courses I took. All of the material was related to real-world example or pertinent to graduate level work. When I was in my chemistry graduate program, I regularly thought "I know this from Dr. Black's class" both in my graduate classes, and in my graduate research. Additionally, her devotion to her students was unparalleled. She made us feel very comfortable asking for help by

encouraging us to come to her office hours and reminding us of the days and times she was available every single class. She also offered extra help every week with an optional evening workshop that the entire class chose to attend. I believe this alone speaks to her ability to achieve student engagement and desire to learn as I have rarely ever seen a full class of students regularly attend an optional evening workshop. But most notable of all was her level of providing and receiving feedback. Every assignment completed from weekly problem sets, to exams and projects were returned with meticulously detailed feedback, and she regularly asked for feedback from the class and adjusted her methods for our greatest benefit. Not only was it the best class I took in terms of preparation for graduate school, it was also easily my favorite class that I took during my time at New College due to how enjoyable Dr. Black made it for us.

While working as Dr. Black's teaching assistant for Organic Lecture 1 and 2, I sat in on all of the classes, held weekly TA sessions, and helped grade assignments. Her organic class was structured very similarly to her Transition Metal Catalysis class. It was very impressive to me that she was able to maintain her teaching style regardless of the difference in size of the two classes. She maintained her workshop style classes by giving them time to work through problems and encouraging them to ask questions while walking around the room to offer help. Regardless of the larger class size, she achieved all of the same things as in her small Transition Metal Catalysis class. There was regular student engagement from the majority of the students and she maintained a high level of detailed feedback on all of the assignments and exams throughout the semester.

Dr. Black also supports her students with thesis help and other mentoring. Even though it was her first year at New College, Dr. Black agreed to be on my thesis committee. She regularly checked in to ask how things were going and make sure I was on track. Along with my thesis, she also helped with my graduate school applications. Although she was not technically my advisor since it was her first year at New College, she was my main source of support with each step of the application process. After graduating, Dr. Black has continued to be a mentor to me. She has consistently been there for me with advice and support since I have met her, through my time at New College and after. In fact, at one point when I was really struggling, I drove back to Sarasota from Atlanta and went straight to her office. Even though she was busy and had no warning of my arrival, she could tell I was struggling and made time to help me. She has made a profound impact on me as a teacher, mentor, and person, and I know she has made a similar impact on many other students as well. In addition to her commitment to students in teaching and mentorship, she also makes a strong effort to connect with her students in their hobbies, supporting a healthy work-life balance. She has been involved in New College's baking club and basketball club, and she hosts board game nights in the library every week. She consistently makes herself available for her students whether it is for help with chemistry, support through an issue, or just winding down from a hard week.

I think that we are incredibly fortunate to have such an impressive candidate up for tenure and promotion at New College and I give her my highest recommendation. Along with her impressive scholarly contributions, her dedication to teaching, mentorship, and service to her students and the community make her an excellent fit for the unique environment at New College.

Sincerely,

Anna Blood

Anna Rose Blood

RECEIVED
SEP 2 8 2022

From: Alex Bottorff (2016 Cohort)

To: Dr. Sandra Gilchrist

July 27th, 2022

Promotion of Dr. R. Black to Associate Professorship of Organic Chemistry

Since Dr. Black (hereupon referred to as Rebecca) is up for promotion to Associate Professor, I would like to share my words of support. As both her first advisee and first thesis student, I hope the New College community will find value in my statement. Please accept this letter as my official support of her promotion.

At the end of my second year at New College, the Division of Chemistry was running a search to hire new faculty to replace Dr. Scudder (my first advisor, since he was retiring) and teach Organic Chemistry, which was when I was introduced to Rebecca and her teaching techniques. Along with several other students, I had lunch with her and other students following her talk on her teaching methods and mini-lecture of a common organic concept. I left the lunch feeling impressed, and other students I spoke to felt the same way, that Rebecca would be an excellent addition to the NCF community. When she was hired, she immediately took to the campus well and it became clear she was the right choice. So much so that I asked to be her first advisee when she was allowed that after her first year of teaching at New College. This presented a unique opportunity for both of us, but also confronted Rebecca with an additional challenge of learning the thesis procedure at NCF at the same time as advising it – a sort of trial by fire situation, as we described it. Even though we encountered a few bumps and disagreements about procedure along the road, I ultimately could not have been happier that I had Rebecca on my side for the process. She helped me draw up outlines for the thesis at large, as well as the individual sections; she went through countless rounds of edits and practice sessions with me to make sure my material and presentation of the material were spot on; and she insisted on certain deadlines and held to them, which helped give me structure and goals. Additionally, I made the process even more challenging for her by doing my experimental part of the thesis project with a professor at FSU, rather than with Rebecca. She handled this very well and did everything she could to understand my project, even though it was somewhat outside her specific area of expertise. Not only did she become familiar with the concepts I was using, but she also aided me in deepening my own understanding of my own project material.

Moreover, COVID-19 hit in the middle of the Spring semester of 2020. Her support was unwavering amid that trouble: we consistently had Zoom meetings to go over material, were in constant communication over email, and she even sent me a care package at one point to show her support in a more tangible matter. While my idea of her support and criticisms at the time did not entirely fit with her style, I am now able to look back and see the value of her guidance during my thesis term.

I personally only registered for one course with Rebecca, which was her Organometallics and Transition Metals in Catalysis class in my third year. This course was nothing less than instrumental in my personal studies and academic direction, but it was also impressive in the sense that it was a very accessible course. I was one of four students in the course and I hold it was one of the most valuable courses I took while at NCF. Prior to taking this course, I had not taken Inorganic Chemistry which is typically a student's first formal introduction to Transition Metal chemistry. However, even though I had not been introduced to those topics before, Rebecca's teaching methods made sure I was not left behind in the course and

ensured I not only excelled in her course, but also that I was over-prepared to take Inorganic Chemistry later. Overall, taking a course with Rebecca was both intellectually engaging and markedly fun; it should be noted this was during Rebecca's first semester at NCF.

Since graduating, I have followed Rebecca's lab closely on social media and am impressed to see the lab practices she is introducing to her research students. From what I can see, these students become proficient in experimental techniques and thought processes that is usually gained in graduate school. For example, I know she has made several students comfortable with Schlenk techniques, which is not a practice most undergraduates have the opportunity to be exposed to. Because Rebecca has taken so well to New College's principle of proactively integrating students' academic interests into their regular studies, she has given these students a great advantage when they enter graduate school or another profession. Obviously, Rebecca is excellently contributing to the type of students New College is graduating into the professional world.

I attest that Dr. Rebecca Black is an extremely important cog in the Division of Chemistry and Department of Natural Sciences machine. She, in her short time with NCF, has contributed greatly to its academic value in a rather small – but nonetheless important – division. It is exciting to hear that she is up for this promotion and I look forward to hearing she is confirmed for this position. I have no doubt her contributions will only increase and her value to the campus community will only become more apparent. Thank you for your time and consideration.

W. Alex Bottorff (2016 Cohort of NCF)

University of Florida

Searles Group

alexbottorff8898@gmail.com

RECEIVED

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Piper Cole October 26, 2022 Biology AOC with secondary in Chemistry New College of Florida

To whom this may concern,

My name is Piper Cole. I am a fourth year undergraduate student at New College of Florida, and I have known Dr. Rebecca Black since my first year. She has greatly impacted my experience here. I originally started on the Biology track, and took the general chemistry sequence as a requirement for my AOC. Dr. Black taught the class so exceptionally that I ended up taking the organic chemistry sequence taught by her as well. From here I fell in love with chemistry, and decided to merge it with my other interests in biology, forming the ISP 'Chemical Ecology' with another student under Dr. Black's support as a sponsor. Dr. Black was extremely helpful during the ISP, and taught me various techniques used in organic chemistry lab before I had even taken the course. I enjoyed this ISP so much that I decided to create a tutorial with the other student, continuing the research that Dr. Black continued to support as a tutorial sponsor. After myself and a few other students showed interest in acquiring a secondary AOC in chemistry, she took the initiative to hold meetings with chemistry faculty to design a set of coursework that would satisfy this. Dr. Black has served as an incredible teacher and a supportive, responsive mentor, and I feel she is highly deserving of tenure.

Dr. Black as a professor is highly responsive and helpful. She replies swiftly to emails, will provide incredibly detailed feedback on all assignments, and plans out each semester extensively. She is sympathetic to students' needs as well, and provided fun rewards such as baked goods to make class much more enjoyable. As a mentor, she is highly helpful, and will meet to perform live demonstrations of lab techniques unfamiliar to me. Even as I pursue my thesis and am not currently enrolled in one of her courses, she has met with me multiple times to help. She also consistently sends helpful articles she finds that relate to my thesis. Even though she is not my advisor, Dr. Black has aided my endeavors outside of chemistry; recommending job events, classes, and writing a letter of recommendation for my graduate school application. She is the reason I applied for an on-campus job that I still hold today. She makes an effort to connect to students on a greater level, holding weekly game nights in the library and meeting for tea. I know I am not the only student that she helps in a multitude of ways, and I find it very impressive that she should be this consistently present in so many students' lives, all while conducting her own research.

Dr. Black has helped me and so many others pursue success. I admire her work ethic and the care she has for her students, and I believe she is absolutely deserving of tenure and promotion to the rank of Associate Professor.

Pipor Cle

Office of Provost, New College of Florida 5800 Bay Shore Road, Sarasota, FL, 34243

Dear Provost.

I am writing this letter in hopes of contributing to the decision of tenure and promotion for Dr. Black. During my time at New College of Florida, Dr. Black has been a great professor and mentor to me. I am sure that myself and many other students have benefited greatly from the contribution of Dr. Black and I believe that she is well deserving of tenure and promotion.

I met Dr. Black during my second year at NCF, during my organic chemistry course. This course was quite a challenge, as it mostly introduced very new concepts. Understanding this, Dr. Black often made conscious efforts to create an environment that fostered conducive learning. Sometimes, this meant slowing down the pace of the lesson to go over a topic that the class may have been struggling with. Other times, this might have been achieved through the facilitation of additional organized hours outside of lecture time and office hours, where we would recap the week's lessons. During office hours and these sessions, Dr Black would often go far beyond her regular responsibilities. By providing refreshing breaks, as well as home-baked goodies, she would aid in easing the stress and tension associated with the day to day of being a college student, while providing helpful tips and advice.

I have also served as a teaching assistant and subject tutor under Dr. Black. In these roles, I was able to build my relationship with Dr. Black and gain invaluable knowledge and skills from her. I was also able to see first hand the dedication and devotion she has for her students, through providing endless resources intended for their betterment and success. I also want to note the kindness she showed to me, by sending a care package all the way to my home in Barbados during the pandemic, while I was serving as her TA.

In my final year at NCF, I participated in Dr. Black's Chemical Research and Career Course and she also served as a member of my thesis committee. During this time, she was a great motivator and mentor, offering encouragement and contributions to my success in my thesis and baccalaureate presentation. Additionally, Dr. Blacks has well equipped me with the skills necessary to prove strong candidacy in obtaining

professional positions, through her teachings, as well as detailed letters of recommendations.

I hope that my words have been insightful and have portrayed Dr Black in a manner that proves her dedication to the academic success of her students, as well as their overall well-being and professional development. I would like to take this time to thank Dr. Black for her contributions to my development and success, and once again, to reiterate my belief that Dr. Black is extremely deserving of tenure and promotion.

Thank you Dr. Black and I wish you good luck!

Nicholas Hall

Nicholas Hall

New College of Florida, Class of 2021

Dear Dr. Sandra Gilchrist,

I am writing to recommend Dr. Rebecca Black for a tenure position at the New College of Florida and a promotion to Associate Professor of Organic Chemistry.

Dr. Black began her teaching career at New College as an Organic Chemistry professors during my third year. From the start, she showed an incredible passion for her work and her students. She held all of us to strict standards, but gave us the necessary tools to meet her expectations. She made herself available for anyone who needed her and gladly explained concepts in more detail or in different ways until we understood the material. Dr. Black's classes were difficult, but since she provided us with all of the knowledge and assistance necessary to perform, it was easy to pass with enough practice and dedication. We were even tasked with writing a scientific paper in the style of a JOC article. I did not think I would be able to correctly complete the assignment, but Dr. Black met with everyone multiple times to ensure we were all on the right track and had minimal errors. In the end, I impressed myself and was able to write a worthy article with her guidance.

In speaking with a more recent student, David Poncé, it is clear that her dedication to teaching has not wavered in the years since she taught me.

I was lucky enough to be Dr. Black's lab assistant in the summer of 2019 and she made it a very informative and helpful experience. Unlike many undergraduate students, I was given a good deal of responsibility and opportunities to learn new skills. I ran NMR spectroscopy, performed reactions, maintained a detailed laboratory notebook, and provided input on how best to achieve her goals for the project at hand. This experience awarded me a great deal of confidence in a lab setting which helped me to get a TA position in Inorganic Chemistry Laboratory the following year and eventually land my current role as a staff chemist at Mote Marine Lab.

Dr. Black is always ready to help with life goals as well as academic goals. She puts an extraordinary amount of work into each and every letter of recommendation she writes for her students. For each application, students are tasked with giving her a summary of the job, a list of skills they want stressed, their resume, and their cover letter for the application. She takes all of this information into account as well as her memories of the student's work and performance to write beautiful, detailed, and honest letters tailored to each specific job.

Years after graduating, Dr. Black remains in contact with me and even got lunch with my coworker and I to discuss her student's performance in my laboratory.

I cannot stress her dedication to New College and all of her students enough. She is an exemplary teacher and mentor and entirely deserving of a promotion and tenure position.

Sincerely, Jaci Martinez

Jaci R Martinez

RECEIVED
SEP 2 8 2022

## To The Office of The Provost,

I am writing this letter to endorse Dr. Rebecca Black for tenure. I was an undergraduate student at New College of Florida from 2014 to 2019, the last year of which I had the privilege of taking one of Dr. Black's courses and collaborating with her as a member of my thesis committee. As long as I have known Dr. Black, she has demonstrated a vast expertise of her field, a high level of skill and care for the craft of teaching, and a desire to be collaborate with students in a wide array of research topics.

Dr. Black's course on organometallic catalysts in polymerization was full of fascinating information which was organized such that the course content was easily digestible, built on fundamental principles of inorganic chemistry and molecular orbital theory that were explained indepth in the first few weeks. This organization made it possible for second-, third, and fourth-year students alike to gain chemical knowledge meaningful to them. Mechanistic work was at the heart of this course. Catalytic processes were discussed from multiple perspectives and with different industrial applications so such that an organic, physical, or materials chemist could understand them in a way that was valuable to their later coursework and research.

Additionally, Dr. Black was an invaluable resource to have as a thesis committee member and mentor. What began as a simple request to use her lab space evolved into a partnership where she continually found new suggestions to optimize my synthetic process and my thesis writing, as well as training in the use of a Schlenk line, which is now one of my most commonly used pieces of equipment in my doctoral studies. Dr. Black has been even more involved with other students in her short time at New College of Florida, taking on undergraduate research assistants every summer, and sponsoring a variety of Independent Study Projects and tutorials, ranging from rigorous organometallic synthetic projects to studies of scientific poetry. I find that the intense rigor in her research combined with her broad curiosity aligns closely with the values of New College of Florida, and I would be honored as an alumnus and colleague for her to continue her work with students as a tenured professor.

SEP 1 Z 2022

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Tyler Parke

Ph. D. Candidate, University of Delaware

Tryler Parke

Cara Ruhnke 4906 Palm Aire Dr. Sarasota, Fl, 34243

Dear Dr. Sandra Gilchrist,

I am writing to recommend Dr. Rebecca Black for tenure and promotion to Associate Professor of Organic Chemistry in the Division of Natural Sciences at New College of Florida. As her former student and advisee, my experience with Dr. Black at New College of Florida was nothing short of excellent.

As her student, I appreciated the high level of organization and care that went into her courses. When the pandemic occurred and all classes went online, Dr. Black's Organic Chemistry I & II were, without a doubt, the best online classes I attended at New College. Dr. Black had no trouble converting the coursework and lectures to exclusively online, and not only did I learn Organic Chemistry, but I also retained it and excelled in it.

I enjoyed Dr. Black's organic chemistry classes so much that I continued to her advanced Organometallic Chemistry course, which was in person. I had a great time learning about organometallics and we even had a catalytic cycle sidewalk chalk drawing day. Dr. Black is truly passionate about her organometallic work and her passion is contagious, which makes even the most advanced chemistry topics easier to digest.

Dr. Black was on my thesis committee, and she helped me with the organic chemistry parts of my thesis project. She always had time for me and wanted to see me succeed. I learned research applications of organic chemistry lab techniques from Dr. Black during my thesis project, and she helped keep me focused on what I could accomplish in the amount of time I had.

I believe my success as a chemistry student was a direct reflection of Dr. Black's exceptional ability as an instructor and course designer. Dr. Black's courses are structured similarly, and it is this structure that I believe is what sets students up for success. All the tools required for the successful completion of the coursework are provided in an organized and concise manner. Collaboration with other students on coursework is encouraged and individual feedback on problem sets every week allows for a deeper understanding of the course content.

It is my opinion that Dr. Black is most deserving of a promotion, and I highly recommend her for the position based on my experience as her student. Please don't hesitate to reach out to me if you would like further information.

Sincerely,

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AUG 0 1 2022

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Dear Sandra Gilchrist,

I had the pleasure of working with Dr. Rebecca Black throughout my final three years at New College of Florida in varying academic contexts. Dr. Black was my professor in Organic Chemistry, as well as a Chemistry Research, Communication, and Careers. I also assisted her in teaching General Chemistry, and she was on my thesis committee. Through these experiences with Dr. Black, I am confident she will make a great candidate for tenure.

One of the things that makes Dr. Black's teaching techniques shine is her emphasis on academic communication through writing. She knows not only the importance of communication in the field of chemistry, but also how crucial this skill is in all aspects of life. Due to her background in English, she is more than capable of integrating this into her curriculum without diverting focus from the subject matter.

As her teaching assistant, I found that she is highly organized and cares deeply about pedagogy. In teaching General Chemistry, she implemented a teaching method known as POGIL (Process-Oriented Guided Inquiry Learning) that focused on structured group work in order to work through problems, which emphasized problem-solving, teamwork, and leadership. In structuring her class according to POGIL guidelines, Dr. Black proved to be a versatile and adaptable professor, able to teach both traditional lecture-style classes as well as more pedagogically cutting-edge methods.

Dr. Black was also a remarkably involved member of my thesis committee. She assisted me greatly throughout the writing process, and being able to go to her for help in both the writing and the content aspects of my thesis was immeasurably helpful. Her feedback was essential in the quality and finalization of my thesis, which is something I'm extremely proud of creating.

Dr. Black has a deep, clear passion for chemistry, but that's not all that makes her such a valuable professor. Her passions for writing, pedagogy, and soft skills—and her ability to integrate these into her curriculum—make her an asset to the New College chemistry department, and a wonderful candidate for tenure.

Sincerely,

Hunter Sullivan

Chemistry and Environmental Studies AOC

New College of Florida 2017-2021

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SEP 2 9 2022



21 October 2022

### To the Members of the PAC:

I am pleased to have this opportunity to write in support of my colleague Rebecca Black, who is standing for tenure and promotion this term. Those better qualified than I will speak to Rebecca's research; here I wish to attest to certain aspects of her teaching, her service to the college, and her collegiality. I already discussed some of this in my letter for her 4th-year review, so this letter will in some cases summarize and in others expand upon that previous letter; the points I made there all still pertain.

While I have no firsthand experience of Rebecca's teaching in the classroom, her careful and generous mentorship of students is obvious to any colleagues who interact with her regularly. She has organized a snack-and-drink cart outside her lab in the Heiser building for any students who need a pick-me-up, and she's conscientious about working in her office (even when she doesn't strictly need to) so that any students doing independent work in her lab have questions. She has also done amazing work encouraging her students to present at conferences, and taking them with her for the experience.

I have also served with Rebecca on several committees, most extensively on the CYC Implementation Committee and (now) on the CYC Steering Committee. I have been consistently impressed by Rebecca's engagement, helpfulness, and productive contributions to the committee's deliberations, especially on subjects that are sensitive and occasionally contentious in the context of College operations. Rebecca has been particularly effective at representing the concerns and perspectives of the members of the Division of Natural Sciences on that committee, since it is most often in the disciplines of Natural Sciences that the College's more holistic desires to produce well-rounded students conflict with the heavy requirements of graduate schools in those disciplines. Rebecca has been respectful of her colleagues' concerns as well as an effective advocate for the college-wide applicability of the CYC program. She even (with Liz Leininger) designed and ran the first iteration of CYC training—developing a framework and materials that I am still using—which was a LOT of work.

Rebecca has also done a lot to foster community on campus; in the interests of space I will merely mention how she has established a regular board-games night in Cook Library that attracts students, faculty, and staff. From my perspective Rebecca is a wonderful colleague who has contributed an enormous amount to the New College community, and I hope she continues to do so for many years to come. I endorse her tenure and promotion to Associate Professor with great enthusiasm!

Sincerely,

Carrie E. Beneš

Professor of Medieval & Renaissance History



October 27, 2022

# Dear Members of the PAC,

I am pleased to provide what I hope will be helpful information to the committee for the promotion and tenure review of my Natural Sciences colleague, Dr. Rebecca Black. Rebecca is a wonderful contributor to our college and division in so many ways, as I attempt to enumerate below. She also teaches courses that serve our biology students (e.g., Organic Chemistry) and I am very appreciative of the fact that her instruction encourages students to gain mastery far beyond just content knowledge, extending into the areas of critical thinking and writing.

Rebecca has been active in research, both in her subfield of chemistry and in chemistry pedagogy. Since her arrival at NCF, she published an article in the peer-review journal, Organometallics. Notably, she has also produced a full manuscript close to submission to the same journal that has six (!) NCF student coauthors. Co-authorship will be of great benefit to her students as they move forward in their careers. She has another fully drafted invited book chapter about a course-based and student-driven project with practical applications, and two manuscripts in preparation about building student information literacy and writing skills in organic chemistry courses. Her research students have been able to present their research at national and regional conferences, again to their great benefit. Working so closely with students and taking the time to ensure that their skills are developed holistically (vs. just producing "lab hands") takes time, but is so much more meaningful for them. Her work in this area has garnered the attention of her peers nationwide, as evidenced by the fact that she's been invited to serve on several career-focused panels as part of various conferences and seminar series. Finally, she has garnered a good amount of funding from the ACS Petroleum Research Fund.

I very much value Dr. Black's efforts to maintain our sense of community, even during Covid, and the fact that she has helped provide numerous opportunities for Natural Sciences students to share their research. She was a primary organizer of our Natural Sciences seminar series for quite some time. She also helped organize poster sessions and panel discussions for students to present and reflect upon their research experiences. Additionally, she has organized college-wide gatherings as well (Happy Hours, complete with treats and board/card games!). She has shared pedagogical tools and strategies at Teaching Tuesday. She has served on search committees, the Writing Advisory Committee and the CYC Steering Committee (and Implementation Committee prior). Finally, I would

also like to express my appreciation for her very efficient work as NCUFF secretary from Fall, 2019-Spring, 2022.

In short, I very much value Rebecca as a colleague. Organizing events to maintain community and providing students with a plethora of opportunities is time-consuming yet rewarding. As I stated in a previous letter, it makes us a better and happier whole. It also puts our students in excellent positions to tackle their future education and careers.

Sincerely,

Amy Clore, Ph.D.

Professor of Biology, VP NCUFF

clore@ncf.edu



Division of Natural Sciences

27 October 2022

PAC 1 c/o Office of the Provost, COH 214 provost@ncf.edu.

re: Tenure and promotion of Rebecca Black

To whom it may concern:

I am writing to you to express my support for Rebecca Black, as she undergoes the tenure and promotion review process. My letter is based on my observations of her interactions with students. While this letter is brief, it is not to be taken as commensurate with my support for her success at NCF. This letter is slightly modified version of the one I wrote for her fourth year review; the content remains relevant.

I cannot attest to Rebecca's teaching content. But, I have had students who mentioned that Rebecca is an excellent teacher of organic chemistry, and that they feel she cares about their progress and is fair in assessing their progress.

From an observational viewpoint, I believe her commitment to students is extraordinary. This is evident not only in her teaching, but in her respectful interaction with students. For example, in fall 2021, I wandered down the hallway of her office, and she had a "snack cart" for students who were preparing for an examination, and were stressed. It was a welcoming gesture. Another example is when I borrowed a lab coat from her. Rebecca kindly offered me a clean and new lab coat from a stack. When I commented on the stack, she said that she keeps them for students who may not have lab coats or could not afford them.

Lastly, my favourite example of Rebecca's teaching is when I came across her and a few students sitting on the sidewalk with a tub of chalk, and Rebecca was guizzing them on chemical structures and reaction pathways, where the sidewalk was the chalkboard. The students were utterly engaged.

Rebecca is collaborative and helpful. She will help fellow faculty and the division when needed. She serves on committees, and is a primary organizer of the natural science seminar series. She appears to enjoy her position, shows concern and awareness of students, and is an active member of the natural sciences faculty. I believe she makes an excellent contribution to NCF, and fully support her application for tenure and promotion. She is a wonderful colleague.

Cordially

Kristopher Fennie, PhD MPH MSc

Associate Professor



5800 Bay Shore Road Sarasota, FL 34243-2109 Phone: (941) 487-4328 Fax: (941) 487-4475

October 28, 2022

Provost's Advisory Council New College of Florida Sarasota, FL 34234

RE: Professor Rebecca Black, tenure and promotion candidate

Dear members of the PAC:

I am writing in reference to Professor Rebecca Black. Although Professor Black has many strengths, I am writing today to recognize her contributions to advising and collegial research. Becca is an excellent advisor - always checking in on the status of her advisees and stepping in to help whenever she can. I've been continuously impressed with her persistence in tracking and helping students facing difficult moments. I also want to say that Becca's been quite supportive of me since she's arrived, in that we've been in a couple research writing courses together in the last few years, and Becca is funny, specific (good tips!), human, and generous in her feedback on our assignments and the joy, trials, and challenges of maintaining scholarship in general and at a liberal arts college. I've heard she does similar things for her students, and I can attest she offers helpful strategies for which I am grateful.

Thanks also to you on the PAC for all your work.

Yours,

Heidi E. Harley

Director of Environmental Studies

Peg Scripps Buzzelli Endowed Chair in Psychology



Division of Natural Sciences

Oct 19th, 2022

## To the members of the PAC,

It is my pleasure to write this letter on behalf of my chemistry colleague, Rebecca Black, for her tenure and promotion review. Rebecca has been making excellent work and positive impacts in teaching, research, and service at New College.

#### Teaching

Since Rebecca's arrival at New College, she has taught 7 different courses that covered our core chemistry curriculum as well as supporting other areas such as biology, biochemistry, and environmental studies areas. Rebecca and I are switching off on teaching Organic Chemistry I & II and Organic Chemistry Laboratory courses every other year which are required for Chemistry, Biology, and pre-med students. I'm so glad to have Rebecca as an in-discipline colleague since we have the same goal to make chemistry "visualized" by the students and help the students improve their scientific writing skills. Her Organometallic Chemistry and Catalysis for Organic and Polymer Synthesis course have drawn many upper-level students' interest and I've heard many positive feedbacks from the students. It is also worth noting that the Chemical Research, Communication, and Careers course she developed is a perfect course to attract upper-level chemistry, biology, and marine biology students for their funding applications, thesis writings, and manuscripts writings.

#### Research

Rebecca has made excellent progress in research at New College. Her organometallics synthesis and catalysis project has been very active and has drawn large numbers of students' interest. She has mentored a lot of students in the air/moisture-sensitive organic and inorganic synthesis lab. As an in-discipline colleague of Rebecca, I'd like to comment that it requires large amounts of effect, skills, and patience to train the students how to deal with air-sensitive labs. Rebecca is surprisingly great at training the students and attracting their focus and interest in the organometallics area.

Rebecca also earned the very competitive American Chemical Society Petroleum Research Fund Undergraduate New Investigator Grant last year, which is another sign of her excellence in research. Besides this, Rebecca has one first-author paper published, at least 14 oral presentations/posters presentations to various local and national conferences with many undergraduate students' co-authors. All of these are indicating her excellent contributions to the research.

#### Service

Rebecca has been super active in service to the chemistry discipline, division, and the whole campus. She is currently serving on CYC and WAC committees. She is also the natural science seminar series co-organizer and secretary for NCUFF. She is always willing to participate in various service roles in the chemistry program and the division or college as a whole. She has organized the chemistry meetings to discuss and finalize our disciplinary curriculum planning and being on the search committee for the Chemistry Associate position. She was on the Ad hoc HHMI proposal planning committee in 2019 and attended the AAC&U conference. She is also on the Ad hoc S-STEM proposal planning committee since spring 2021. Besides these, she has been actively involved in faculty searches in computer science, data science, and epidemiology positions.

Overall, Rebecca has been a fantastic colleague and I am looking forward to working with her for many years.

Sincerely,

Lin Jiang, Ph.D.

Assistant Professor of Bioorganic Chemistry

New College of Florida



# Division of Natural Sciences

Dr. Tania Roy, Assistant Professor

Tania Roy Department of Computer Science 5800 Bayshore Road Sarasota FL 34243

October 28, 2022

Phone: (864) 280-1687 E-mail: troy@ncf.edu

To Whom It May Concern,

It is a pleasure to write this letter of support for Dr. Rebecca Black's tenure and promotion case. I have known Dr.Black since Fall 2018 as her colleague in the Natural Sciences Division at NCF.

Dr.Black and I have different areas of expertise and I cannot comment on her core scholarly research however we have had several discussions on pedagogical research and applications of that research in the classroom which leads me to conclude that not only is she an outstanding researcher but someone with a unique ability to bring research into her classroom. Dr.Black regularly participates in American Chemical Society meetings and has presented in symposia sponsored by the Division of Chemical Education and by the Division of Inorganic Chemistry-education research. She has also mentored students who have submitted and presented posters at regional and national level venues. This is an outstanding feat and an example of her strong mentorship skills. The ability to break down large research problems into suitable ones for undergraduate students, supervise them during laboratory experiment sessions and mentor them through graduate school applications is an outstanding feat that Dr. Black has accomplished during her time at NCF.

Dr.Black as an educator is committed to not only ensuring students learn the core concepts in great depth but she engages with them through several hands-on activities. Her ability to incorporate information literacy and writing skills into her class offerings seamlessly has been a great learning template for me as an educator. She has always been generous in sharing her knowledge with colleagues in other disciplines. My discussions with her on POGIL or Process Oriented Guided Inquiry Learning led me to change my approach to how I teach introductory computer science course and convert it to a group-learning instructional setting.

This approach was well-received by the students and I am grateful for picking up these instructional tools from her that makes me grow as an educator.

As a new faculty member with limited teaching experience Narrative Evaluations was a challenging aspect of NCF for me. Although several colleagues and mentors helped me through the process Dr. Black's support over the years has been invaluable. Having a colleague with whom I can have an in-depth discussion about the impact of these narratives, framing, and ultimate purpose has been a learning journey for me. Her patience and insights are astounding and I have no hesitations in saying she is an outstanding educator and colleague.

Dr.Black's contribution to NCF is not solely limited to scholarship and teaching, she is a community builder. She tirelessly works on organizing community events such as board-game nights, Natural Science Seminars, NCUFF meetings, and outreach activities. Her ginger snap cookies and tea cart are a welcome refuge for colleagues and students alike. Dr. Black is a true asset to NCF and I strongly support her tenure and promotion case.

Sincerely,

Taria Rey

Tania Roy, Assistant Professor



Division of Natural Sciences

October 25, 2022

To: the PAC

Re: Support letter for Dr. Black's review for tenure and promotion

I write in support of Dr. Black for the award of tenure and promotion. Dr. Black is an exemplary colleague and accomplished educator.

Dr. Black's teaching methods are driven by pedagogy and ever-improving. She strives to develop the most effective teaching tools and is responsive to the needs of each cohort of students. This commitment to teaching extends to conducting research on education methods to further grow as an educator. Beyond course design, I have repeatedly heard from my advisees about her exceptional support of students. She is generous with her time and clearly cares about helping students succeed. This care extends to community building through weekly Table Top Board Game Nights and adding a food cart outside her office for socialization and to address the lack of food resources available for students on the West side of campus.

Her support of students extends beyond the classroom. She sought and was awarded a grant specifically to support undergraduate researchers from the American Chemical Society Petroleum Research Fund. As a result, Dr. Black has weaved students into her research and supported student research projects. The quality of the research has merited several presentations at professional conferences including student first authors and co-authors. Creating opportunities for students to conduct research and engage in the scientific community at a professional level is challenging, but highly valuable for students!

Dr. Black's service contributions are plentiful. In addition to covering a wide span of areas, she is diligent in her contributions. We both served on the search committee for the Visiting Assistant Professor in Biochemistry and she was thorough and considerate in her evaluation of candidates and thoughtful in deliberations.

I strongly recommend promoting and awarding tenure to Dr. Black!

Sincerely.

Athena Rycyk, PhD

Others Ryege

New College of Florida

Assistant Professor of Biology & Marine Science



Division of Natural Sciences

October 28, 2022

To the members of the PAC:

I'm pleased to write a letter on behalf of my colleague in Chemistry, Rebecca Black, as she stands for tenure and promotion, as an update to the letter that I previously wrote for her 4th year review. Since then, Rebecca has continued to do excellent work in teaching, research, and service.

As mentioned before, Rebecca's teaching in the organic chemistry sequence (split with Lin Jiang) support the core of the chemistry program, and she uses the remainder of her teaching assignment to both offer advanced chemistry electives and also to provide writing and career support for our thesising students. I've had the pleasure of co-teaching one such course with Rebecca in Spring 2021 ("Chemical Research, Communication, and Careers"). As I indicated previously, Rebecca is adept at facilitating student discussion and drawing out students who may be a bit nervous or insecure about their work. This was important in the course we co-taught, but is also important in the Organic Chemistry sequence, which is traditionally the source of stress and anxiety for students by reputation.

Moving to research, Rebecca describes her work in her statement, but in short, she is pursuing projects in both organometallic catalysis and in chemical education. This latter work of course blends her teaching and research and takes advantage of our unique academic setting that allows for quick iteration and development of educational practices. Rebecca's catalysis work has been supported by external funding from an ACS-PRF Undergraduate New Investigator award, and her file and CV documents how these projects are moving towards completion and publication. Further, her file also documents her progress on the chemical education work, which has already garnered wide interest from the broader chemistry community at National ACS meetings. Finally, to reiterate from her 4th year letter, I want to note that Rebecca's catalysis research was particularly hampered by COVID social distancing regulations, specifically that the college did not allow any summer student researchers to work on campus during the summer of 2020.

In the area of service, there's not much to add since I wrote for her 4th year review last spring, particularly as she is on research leave this semester with no expected committee obligations. In short, she has participated in several search committees, has been part of the NCUFF Executive Committee, and has worked on both the campus-wide Writing Committee and the committees associated with the rollout of the CYC program. She's done solid work in all of these tasks and is clearly deeply committed to improving the educational experiences of our students.

In summary, Rebecca has been an excellent colleague and I look forward to working with her for many years to come.

Sincerely,

Steven Shipman

Professor of Physical Chemistry



October 27, 2022

Members of PAC1

Office of the Provost

RE: Support letter for Tenure and Promotion - Professor Rebecca Black

Dear PAC members and Provost Office,

It is my pleasure to write to support Professor Black in her application for Tenure and Promotion. Even though we are in different fields, I have had the opportunity to interact with students taking her classes and tutorials, and to see how productive and vibrant her research is.

Professor Black teaches courses that are fundamental not only for chemistry-related AOC students, but also for our Biology and Marine Biology students, among other AOCs. I always recommend to my advisees that are considering graduate schools in biology, marine biology, or environmental fields to take Professor's Black Organic Chemistry classes. Additionally, I encourage them to take advantage of Professor's Black advice and opportunities to improve fundamental knowledge, writing, and general communication skills.

Professor Black is also very active in offering students opportunities for research and encouraging them to present results at important conferences. Some of the presented work has also been featured and recognized for its excellence and relevance. Further, Professor Black has presented her work in several in-person and online meetings and seminars, some of them as guest speaker.

In addition to her academic and research accomplishments, Professor Black has maintained a very active extracurricular presence at New College, and has participated in several activities related to professional development, and institutional and community service. She has been an active member of important committees and programs, always providing timely reports and supporting materials.

From what I know about Professor's Black scholarship, academic performance, and service, she fully deserves her Tenure and Promotion at New College. Please do not hesitate to contact me if you have any questions.

Sincerely,

Gerardo Toro-Farmer

Assistant Professor

Division of Natural Sciences & Environmental Studies Program

New College of Florida

Email: gtoro-farmer@ncf.edu



## Office of the Provost and Vice President for Academic Affairs

#### Dear Promotion Committee,

It is my pleasure to write this letter on behalf of Dr. Rebecca Black for her promotion to Associate Professor. Many of us on campus have benefited from Dr. Black's care and attention, be it as a collaborator, or as a faculty member who shares students alongside her. Since Dr. Black has been at New College, I have been continually impressed by her collegiality, leadership skills, and student-centered approach to teaching.

In 2018, Dr. Black asked me about possibly sponsoring a science and poetry group ISP. We met to discuss our interests and goals for such a collaboration, and through the course of an engaging discussion, we realized how fruitful a writing-based ISP could be for students in the sciences seeking to deepen their writing and communication skills. Dr. Black shared resources and time as we developed the frame for a collaboration. Students were able to benefit from faculty whose expertise interacted across inquiry-driven forms. Additionally, students engaged with research, poetry, and information at the intersection of our disciplines.

Dr. Black's support of writing across the disciplines not only offers places for the Writing Program to offer its resources, but her students are able to see writing as a thinking practice, an invaluable tool for their future in their chosen fields. Her invaluable contributions as a WEC attendee helped me understand how her students practice and learn using language as a medium to explore chemistry.

Often, Dr. Black will share her support of her students on her own social media page, where she celebrates their creativity and hard work. In only this small gesture, it is clear her pedagogy is one of shared resources, growth mindset, and accessibility. Her courses invite students to make connections across her classes and current events. Her students write, revise, and present their work to each other, and, incredibly, at conferences. Dr. Black offers opportunity after opportunity for her students to practice, develop, and refine their skills as observers, scientists, and citizens in the scientific community.

Her devotion to campus life does not stop there. Dr. Black embraced the challenge of leading a CYC workshop in summer 2020 with Dr. Leininger. Such an undertaking required learning CYC requirements, adapting that material into digestible sessions for her colleagues, as well as offering ongoing support for faculty who were adapting their courses to meet CYC criteria. Her

Dr. Black reminds me that all educators should offer as much enthusiasm and support to their own classes, though many of us struggle to maintain Dr. Black's stamina and productivity. Her work ethic is at once ambitious and inspiring. I hope to grow into the kind of colleague Dr. Black already is so early in her academic career, already performing at Associate Professor capacity. Please feel free to contact me if I can share any additional information in support of Dr. Black.

Sincerely,

Dr. Avni Vyas

Instructor of Writing

Writing Program



October 28, 2022

## Dear PAC members.

This is a letter for Prof. Rebecca Black's tenure and promotion file. I have worked with Rebecca since she arrived at New College in 2018.

Rebecca has contributed to much of the chemistry curriculum. She has taught General Chemistry, Organic Chemistry, Organic Lab, upper-level courses, and a career-development course for thesis students. Because of her training in inorganic chemistry, she will also be a great asset since we lost a visiting colleague at the end of Spring 2022. We have students who need to take Inorganic Chemistry before they graduate. Rebecca has also used many effective teaching techniques in her courses. She used POGIL (Process-Oriented Guided Inquiry Learning) during General Chemistry, which involves inclass collaboration and problem solving, and she assisted me when I started using the same technique this semester. Rebecca also introduced innovations into the Organic Chemistry curriculum, including more writing instruction and student reflection. She continues to participate in faculty development opportunities at New College and at professional conferences.

Rebecca has been very successful in her research program. She quickly set up her research laboratory and overcame the challenges of getting all the new equipment delivered and installed. She published results from her graduate research and secured a large grant from the Petroleum Research Fund to support her current research projects. She has a manuscript based on her own research ready to submit, and she has a number of manuscripts related to the science of teaching and learning. Rebecca has mentored numerous tutorial and ISP students, and she supported many of these students to attend research conferences, both in person and virtually during the pandemic. Rebecca has also given many presentations at conferences and given invited presentations about her research and her teaching innovations. She also effectively uses her connections in the chemistry research and teaching community.

Rebecca has been an active member of the college at all levels. She was a member of the Writing Committee and the CYC Steering Committee. She has represented the chemistry discipline at many Admissions events. Before the pandemic, Rebecca helped start the New College Happy Hour where students, faculty, and staff could socialize, and now she organizes a weekly game night at the library. She has given presentations during Teaching Tuesday on various topics and collaborated on CYC training for faculty. She has been an organizer of the Natural Sciences seminar series. As part of this series, she arranged for student talks, student poster sessions, and student panels, and these were all very successful. Rebecca is also helping us make our assessments of the chemistry program more effective and meaningful.

Rebecca has been active and successful in all three areas of teaching, research, and service since arriving. It is great to have such a talented and collaborative colleague.

Sincerely,

Katherine M. Walstrom, Ph.D.

Professor of Biochemistry



Necmettin Yildirim
Professor of Mathematics and Soo Bong
Chae Chair of Applied Mathematics
Division of Natural Sciences
New College of Florida
5800 Bay Shore Road, Sarasota, FL 34243

Phone: (941) 487 4214 Email: nyildirim@ncf.edu

October 27th, 2022

To the members of the Provost Advisory Committee:

It is a great pleasure for me to write this letter to express my sincere support for Professor Rebecca Black on the occasion of her tenure and promotion. I firmly believe Dr. Black is a skilled teacher, dedicated scientist, and excellent colleague.

I served as one of the hiring committee members for Dr. Black. The position was a toughto-fill-in position after Prof Scudder's retirement with 40 years of successful teaching experience at New College. The committee interviewed all short-listed candidates, and Dr. Black was one of them. At the end of the interviews, it was not too different to make final decision for the committee that Dr. Black was an excellent candidate to fill in this position. Dr. Black arrived New College with rich teaching and research experience. I just like to highlight and praise her dedication in teaching and implementation of active learning technique in her teaching, which I believe requires a lot of effort and time investment for preparation of course material. Even during the short lecture as part of her on campus interview, she successfully implemented this technique, which requires active student participation to in-class discussions and promotes small group works. I strongly believe that student engagement is key to successful teaching and learning, innovative teaching strategies could significantly improve student engagement to the course material. I hear nothing but positive from my student on her skills, enthusiasm and dedication in their trainings. As a member of the scholarship committee last year, I know Dr. Black successfully integrate students in her research, the committee reviewed several of her students' research proposals and request seeking support to present their research at the national conferences organized by American Chemical Society. This kind of opportunities provide a once-in-a-lifetime experience for our students.

I value Dr. Black as a colleague, and strongly support her tenure and promotion. She is an excellent professor making valuable contribution to New College community.

Sincerely yours,

Professor of Mathematics

Necmettin Vildirim.

# PROVOST'S ADVISORY COMMITTEE EVALUATION:

Professor Rebecca Black is a chemist with research interests in organometallic chemistry and chemical education. She joined the faculty as an Assistant Professor in Fall 2018.

#### TEACHING

Professor Black teaches core courses in chemistry, including the Organic Chemistry sequence (I and II), Organic Chemistry lab, and General Chemistry, as well as two courses focused on her specialization in organometallic synthesis and a course exploring careers in chemistry and thesis planning (Chemical Research, Communication, and Careers). She has also taught a range of tutorials and ISPs serving students in chemistry, biochemistry, biology, marine biology, and environmental studies. She contributed to the multidisciplinary course, COVID-19: An Interdisciplinary Approach to the Understanding of a Pandemic.

Professor Black develops evidence-based pedagogies through her involvement in conferences and online communities. Her willingness to learn new teaching approaches is impressive. One colleague praised her introduction of innovations to the organic chemistry curriculum, which involved writing assignments and student reflection. She uses the POGIL (Process-Oriented Guided Inquiry Learning) technique in General Chemistry, which involves in-class collaboration and problem-solving. She has also helped to develop the CYC (Chart Your Course) assessment plan and adapted Organic Chemistry I into a CYC course. She is responsive to student feedback, (e.g., shift from a fully flipped classroom to one that includes a short lecture introduction), which she incorporated into subsequent courses. The enrollments in her courses, tutorials, and ISPs are at or above the average for the chemistry AOC.

Professor Black has sponsored two theses (one in progress this year), and she worked with thesis students in chemistry and related disciplines on developing their projects and revising portions of their thesis through the Chemical Research class and individual mentoring. Several of her advanced students have participated in poster sessions, panel discussions, and remote conferences where they have presented their own work. She has served on baccalaureate committees in chemistry, biochemistry, marine biology, biology, and environmental studies. She sponsors seven to nine contracts each semester. To better meet the needs of her students, she has developed a useful Canvas page to communicate with her advisees and help them access campus resources.

Students generally find Professor Black "helpful, accommodating, and accessible." Some found the work challenging and the pace of the courses a bit fast, but many praised her organization, clear communication, and supportive approach. Course evaluations provide good descriptions of the courses and the strengths and weaknesses of each student in the areas covered. Her thoughtful contract certifications synthesize common themes from the course evaluations and discuss skill development and progress toward an AOC.

#### SCHOLARSHIP

Professor Black has two main laboratory research areas: organic synthesis and transition-metal catalysis, with several published articles on research completed at the University of Chicago. She has also worked on the topic of chemical education, with three in-progress manuscripts included in her tenure file. Professor Black actively attends ACS (American Chemical Society) Conferences, accompanied by NCF student co-presenters.

Since arriving at New College in 2018, Professor Black has published a detailed article (with coauthors) about her graduate research. This paper appeared in a top-tier ACS journal, Organometallics, in 2019. Professor Black completed the computational modeling and writing of this journal article while at New College. One of the external tenure reviewers stated that this article is "excellent and in an excellent journal," a viewpoint shared by the other reviewers.

In 2021, Professor Black received a new-investigator \$50,000 ACS-PRF-UNI grant based on her current research as an independent investigator. This award is prestigious, with only about a 20% award rate. This research has since been carried out, with several student collaborators, and an in-progress manuscript is in Professor Black's tenure file. The external reviewers were impressed by this manuscript.

The external reviewers made positive remarks about the importance and potential impact of Professor Black's three unsubmitted teaching manuscripts. Recently she was invited to write a chapter for an ACS Symposium e-book entitled Engaging Students with Real-World Context. We add that Professor Black has a record of publication and presentations on pedagogy going back to her PhD work at University of Chicago.

Professor Black worked with several NCF research students, obtaining internal support for them to attend and present at ACS conferences. One of their poster presentations was recognized as a finalist in the inorganic chemistry division poster competition. Two of her lab's ACS conference abstracts were invited to the SciMix interdisciplinary poster session and published online.

Some of the external reviewers viewed Professor Black's publication record so far as normal for a tenure candidate, but there was also the viewpoint expressed that her record might appear thin, with only one published manuscript at NCF, and on research started at the University of Chicago. Professor Black does have additional manuscripts in-process, but they have not yet received peer review and been published. Nevertheless, the ACS-PRF-UNI grant received favorable peer review.

#### SERVICE

Since her arrival, Professor Black has demonstrated her commitment to the institution by extensively serving the college, her division, and her discipline in a variety of ways. Her service work can be roughly divided into two areas: first, service to the college at large, and second, service to her division, discipline, and area of professional expertise.

To the college at large, Professor Black's most notable service has been her work helping improve curriculum design and assessment as a member of the Chart Your Course (CYC) committee. Her work for the CYC committee has been extensive, as implementing the CYC

curriculum is a broad-ranging task, which required significant time across a variety of components. Her interest in education and pedagogy at the college is well documented; she has continued service in this area related to and outside of her CYC work, as well. She has participated in and coordinated a variety of workshops and professional development opportunities at New College, including the *Teaching Tuesdays* series in which she has regularly participated and assisted, and she has been a member of the Writing Advisory Committee (WAC). She has also served as the New College United Faculty of Florida Secretary since 2019 and is a regular presence at student recruitment, admitted student, and orientation events, contributing to our efforts of increasing enrollment and improving retention.

In her division and discipline, Professor Black has been an active citizen as well. She has served on three search committees and played a supporting role in numerous other important searches for faculty and staff positions on campus. She co-organized the Natural Science Seminar Series from 2020-2022 and has been a regular participant in curriculum development and planning within the chemistry AOC. She also regularly represents the chemistry AOC at campus AOC fairs. Finally, to her profession at large, she has served as a peer reviewer for journals and grants as well as a symposium chair at two conferences, rounding out her service as a faculty member.

It is the assessment of the PAC that Professor Black's teaching is strategic and innovative in its pedagogical approach (which she has also shared with the wider community) and effective in its implementation. She has also created a solid foundation for significant progress in her research in the coming years. Finally, her service has made important contributions to New College and she is well positioned to continue these contributions in the future.

## Rebecca Black Statement on Scholarship and Professional Contributions October 2022

My scholarship is focused in two primary areas: 1) organic and inorganic synthesis and homogeneous transitionmetal catalysis and 2) chemical education/scholarship of teaching and learning. Over the past four years, I've had the opportunity to work collaboratively with many New College of Florida (NCF) student researchers with diverse backgrounds and interests. This has been an exciting and fruitful component of being a researcher at a liberal arts honors college, where my scholarship is intertwined with mentoring the next generation of scientists.

In summary, since arriving at NCF, I have published one first-author, peer-reviewed journal article (Organometallics 2019, 38, 21, 4250-4260). I have also written full drafts of an invited ACS Symposium e-Book chapter and a journal article manuscript; I will submit these for peer-review in Fall 2022 during my research sabbatical. I have had 8 National and 1 Regional ACS conference abstracts accepted; half of these involved 6 student co-authors and 2 presentations were also invited into SciMix. My student researchers also presented a poster at NCF's Fall 2021 Natural Sciences Research Seminar. My synthesis program has fueled one NCF honors thesis (M. Goldberg) in 2022 and is the focus of another in 2023 (I. Alam). In support of my lab research program, I have submitted an ACS-PRF-UNI grant (\$55,000, 2021-2023) and three internal research grants grant proposals, all of which have been successfully funded.

In the sections below, I elaborate on my research projects in each of my areas of scholarship. For each, I provide my overarching research approaches and goals, as well as include brief descriptions of my publications and presentations, publications in progress, and funded grants. I believe that the research program I have developed at NCF, my record of publications, presentations, and funding, and the integration of my research and teaching, show that I have met the Scholarship and Professional Contributions criteria for tenure at NCF.

## 1. Organic/Inorganic Synthesis & Homogeneous Catalysis Project

Research Motivation & Approach: The importance of catalysts in our history and day-to-day lives fuels multiple subfields of chemistry research. As a synthetic organic and inorganic chemist working in homogeneous transition-metal catalysis, I seek (i) to develop more active, robust, and selective transition-metal homogeneous catalysts that perform organic reactions at moderate temperatures and pressures and (ii) to understand the mechanisms by which these catalysts operate. One approach I use to develop better catalysts is through rational ligand design, which involves making intentional structural and electronic modification(s) to the ligand framework and testing the impact on catalyst performance. I propose new structural and/or electronic modifications after conducting a thorough structure-activity survey of catalytic studies for a particular reaction and consideration of proposed mechanisms. This iterative process of modifying earlier-generation catalysts based on mechanistic understand has led to many improved catalyst systems. I also utilize biomimicry when designing new transition-metal catalysts. Chemists can mimic nature by incorporating similar molecular structural features found in metalloenzymes, which are evolutionarily tuned for a specific chemical reaction, into their homogeneous catalysts. For example, many hydrogen-transfer metalloenzymes have organic functional groups proximal to the active site; these groups play a role in catalysis (metal-ligand cooperativity) either through direct bonding to the substrate or by electrostatically stabilizing intermediates. My current research, described below, seeks to probe and quantify the effect that different pendent functional groups have on catalytic rate.

Lastly, as an educator, I am dedicated to preparing the next generation of scientists to tackle global challenges. I have mentored 11 students to actively collaborate in this laboratory research. To prepare them for their future careers, I aim to model and help foster my students' ability to solve problems, perform safe laboratory techniques and practices, keep detailed records, and to ethically manage and analyze data.

Current Research: My synthesis and catalysis research program is focused on (i) synthesizing a series of new biphenyl bisphosphine (BIPHEP) ligands functionalized with and without pendent bases (i.e. amide, alcohol, amine, carboxylic acid, and alkyl), (ii) synthesizing corresponding neutral and cationic ruthenium(II) complexes, and (iii) evaluating the catalytic behavior of the resulting homogeneous complexes in alcohol acceptorless dehydrogenation (AAD) reactions. We are interested in developing more active AAD catalysts as an atom-economic and environmentally benign approach relative to traditional oxidation methods which suffer from poor atom economy (require stoichiometric or excess toxic metal-based oxidants), poor chemoselectivity, and poor sustainability (generate organic and inorganic toxic byproducts). This work has led to the development

of several new BIPHEP-type ligands with substituents on the 2-position of the PAr<sub>2</sub> rings. This project seeks to probe and quantify the effect that the proton affinity and basicity of pendent bases at these positions has on the AAD catalytic rate. Understanding the effect of pendent-base proton affinity and basicity on catalysis in this system will help provide electronic tuning requirements in future catalyst design. Along with three internally funded grants for summer research, in 2020, I secured an ACS Petroleum Research Fund – Undergraduate New Investigator grant (\$55,000) to support this research program. All funded grant proposals and award letters are available in my file.

This research program requires the use of both organic and inorganic synthesis methods, equipment, and instrumentation. While all of my BIPHEP-type ligand targets are air- and moisture-stable, many of the phosphine intermediates or reactants used are air- and moisture-sensitive. Therefore, many reactions in this project require the use of dry/degassed solvents (MBRAUN SPS) and are performed either on a Schlenk line (my lab has two) or in a nitrogen-atmosphere glovebox (MBRAUN UNIlab<sup>pro</sup> sp). This adds an extra level of training for new research students as Schlenk technique is not taught until the upper-level Inorganic Lab.<sup>1</sup> The laboratory instrumentation at NCF has been fundamental for conducting this research. I have made extensive use of NCF's 400 MHz JEOL NMR Spectrometer (new in 2018) to assay reactions and to characterize new compounds, especially through multi-nuclear (<sup>1</sup>H, <sup>13</sup>C, <sup>31</sup>P) 1D and 2D and variable-temperature experiments. NCF's IR spectrometer and GC-MS have also been useful in this work. As NCF does not have a single-crystal X-Ray Diffractometer, I have developed collaborations with The University of Chicago, Florida Gulf Coast University, and Eastern Illinois University, who have agreed to collect single crystal data for this project, free of charge.

Integration of teaching and laboratory research: Integrating my research and teaching has been fundamental for advancing my synthesis and catalysis research program, especially during the academic year, and has allowed me to offer high-impact research opportunities to my students. Over the past four years, I have mentored 11 NCF students<sup>2</sup> in this research through January-term Independent Study Projects (ISPs) and research or thesis tutorial courses. <sup>3,4</sup> I recruited 10 of these students from either my Organic Chemistry 1 lecture course or Organic Chemistry II laboratory course. As most haven't taken Inorganic Chemistry Lab, it can be quite time-intensive to train a new research student in a completely new set of lab techniques. Fortunately, a majority of student researchers (n=8) have been engaged enough in this project to continue working in my lab for more than a single research period (ISP, semester tutorial, or summer).<sup>5</sup>

The students I recruit into my lab have diverse interests and career aspirations. AOCs of students involved include: Chem (3), Chem/Bio (1), Biochem (1), Marine Bio (3), and Bio (3). Of six who have graduated, two are in Chemistry PhD programs, two are chemists/lab technicians, and two are interns at scientific organizations.<sup>6</sup>

#### Scholarship outputs:

Conference Presentations: We have presented progress on this project at four ACS Conferences (five presentations). My students also presented at NCF's Natural Sciences Research Seminar in Fall 2021. Full abstracts & SciMeeting materials are included in my file. Undergraduate co-authors are underlined.

 Black, R. E.; Goldberg, M. J. "Synthesis and characterization of biphenyl-derived bisphosphine ligands bearing pendent bases." ACS Spring 2020 National Meeting & Expo, Online, March 21-25, 2020; American Chemical Society. Published to SciMeetings Apr 29, 2020.

<sup>1</sup> Most students begin working in my lab after their first semester of Organic Chemistry I Lab.

<sup>&</sup>lt;sup>2</sup> Five more new undergraduate researchers, recruited from Organic Chemistry II Laboratory, joined my lab in Mod 2 of Fall 2022.

<sup>&</sup>lt;sup>3</sup> Before graduating, New College students complete three January-term Independent Study Projects (ISPs), complete a year-long research project, and write and defend an honors thesis in front of a committee. Many students enroll in research tutorial courses to continue ISP projects or to build research and technical skills necessary to develop and carry out their thesis project.

<sup>&</sup>lt;sup>4</sup> In addition to the 11 students involved in my synthesis and catalysis research program, I also mentored & thesis sponsored another chemistry major (W. Bottorff, 2020) who conducted radioactive materials research in Prof. Albrecht-Schmitt's (FSU) lab.

<sup>5</sup> Four students have worked in my lab for >3 research periods: continuously for 2.5 years; over one ISP, three semesters, one summer (will complete his thesis research this year); over one summer & two semesters; over one ISP & two semesters.

<sup>&</sup>lt;sup>6</sup> Two Chemistry majors are now enrolled in Inorganic Chemistry PhD programs (UChicago and UFlorida) and a third is a hospital radioisotope technician. Two Marine Biology majors are now: (i) a Staff Chemist in the Ocean Acidification Program at the Mote Marine Laboratories and (ii) a lab tech at FSU Costal Marine. One Biology major is now a Field Museum - Field Biologist intern.

This poster included an introduction of alcohol acceptorless dehydrogenation (AAD) & examples of published catalysts with pendent bases that cooperatively participate in AAD reactions. It described two proposed synthetic routes for two ligands: with pendent bases (2,2'-bis(di(2-COOH-phenyl)phosphino)biphenyl, 2-COOHBIPHEP) and without (2,2'-bis(di(2-ethylphenyl)phosphino)biphenyl, 2-BiPHEP).

 Goldberg, M. J.; Alam, I.; Black, R. E. "Pendent base-functionalized biphenyl-derived bisphosphine ligands: synthesis and characterization." ACS Spring 2021 National Meeting & Expo, Poster Presentation, April 21, 2021; American Chemical Society National Meeting. <u>Published to SciMeetings</u> May 27, 2021.

This poster provided an update for the synthesis of our two ligand targets. We described a reaction optimization for a C-C coupling, the final step toward ligand <sup>2-Et</sup>BIPHEP. We also described a revised synthetic route for ligand <sup>2-COOH</sup>BIPHEP, utilizing oxazoline protecting groups along the synthetic route.

 Goldberg, M. J.\*; Alam, I.; Stryker, J. S.\*; Markham, S.\*; Black, R. E. "Synthesis, Characterization, and Catalytic Performance of Ru(II) Complexes Bearing 2,2'-bis(diphenylphosphino)Biphenyl (BIPHEP) Derivatives." South Eastern Regional Meeting (SERMACS), Poster Presentation, November 11, 2021.
 \*presented in-person

This poster described the synthesis & NMR characterization of di(2-oxazolyl-phenyl)phosphine oxide, an intermediate on route to <sup>2-COOH</sup>BIPHEP, a ligand we believed to be <sup>2-EI</sup>BIPHEP (support by NMR data), and a Ru complex. We included initial data for this Ru(II) complex in AAD conditions.

Goldberg, M. J.\*; Alam, I.\*; Stryker, J. S.\*; Markham, S.; McKenna, N.\*; Homer, D.; Black, R. E.\*
 "Synthesis, Characterization, and Catalytic Acceptorless Dehydrogenation Performance of Ru(II)
 Complexes Bearing BIPHEP-type Ligands." ACS Spring 2022 National Meeting & Expo, In-person
 Poster Presentation, March 20, 2022. \*presented in-person

This poster was chosen as a finalist in the *Inorganic Chemistry Division Poster Competition*. It included the synthesis schemes & NMR spectra for new compounds  $P(^{2-Br}Ph)(^{2-Et}Ph)_2$ ,  $^{2-Et}BIPHEP$ , and  $[CpRu(^{2-Et}Ph)(^{2-Et}Ph)_2)_2][OTf]_2$  and  $[CpRu(^{2-Et}Ph)(^{2$ 

 Black, R. E. "Ru(II) Complexes Bearing (Non-)Base Functionalized BIPHEP-type Ligands: Synthesis, Characterization, and Catalytic Alcohol Acceptorless Dehydrogenation Performance" ACS Spring 2022 National Meeting & Expo. In-person Oral Presentation, March 20, 2022.

In this presentation, I introduced AAD catalysis & explained how pendent bases in a catalyst's second coordination sphere can enhance catalytic rate. I described the synthesis & characterization of new compounds (see list above in 4). I described NMR assays from initial tests of our new Ru(II) complex under AAD conditions. Finally, I summarized our ongoing efforts to prepare <sup>2-COOH</sup>BIPHEP via two routes.

## Article Manuscript (in-progress):

Black, R. E.; Goldberg, M. J.; Alam, I.; Stryker, J.; McKenna, N.; Markham, S.; Reiter, E. Evaluation of a Ru(II) Complex Bearing Bis(diphenylphosphino)biphenyl Ligand with 2-Substituted PAr<sub>2</sub> Groups Under Alcohol Acceptorless Dehydrogenation Conditions. A complete draft of this manuscript can be found in my file. I will submit this article to Organometallics for peer-review in Fall 2022 (sabbatical). This article describes:

an efficient synthetic route to prepare enantiomerically pure (2,2'-Bis(di(-2-ethylphenyl)phosphino)-1,1'-biphenyl), <sup>2-Et</sup>BIPHEP, which contains ethyl substituents at the 2-position of each P-Ar group, via iron-catalyzed C-C coupling of (2-bromophenyl)bis(2-ethylphenyl)phosphine. We expect this to be a general route to prepare other BIPHEP ligands containing 2-substituted PAr<sub>2</sub> groups. This is significant as the development of new BIPHEP-type ligands has largely focused on making modifications or adding substituents to the biphenyl ring (e.g., BIPHEMP and MeO-BIPHEP); the preparation of BIPHEPs bearing

- substituted diarylphosphine (PAr<sub>2</sub>) groups which require alternate synthetic routes is a largely underexplored ligand design space.
- the synthesis and characterization of new Ru(II) complexes, [CpRu(PP)(MeCN)]PF<sub>6</sub> (PP = <sup>2-El</sup>BIPHEP and BIPHEP), [CpRu(P(η²-σ-BrC<sub>6</sub>H<sub>4</sub>)(σ-EtC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>)(MeCN)]PF<sub>6</sub>, and [CpRu(PPh(σ-EtC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>)(MeCN)]PF<sub>6</sub>. Initial tests of the latter complex under alcohol acceptorless dehydrogenation conditions and thermal stability studies of this complex under various conditions are described.
- crystal structures of three new ruthenium complexes are described: two complexes bearing monophosphines, [CpRu(P(η²-o-BrC<sub>6</sub>H<sub>4</sub>)(o-EtC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>)(MeCN)]PF<sub>6</sub> and [CpRu(PPh(o-EtC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>)(MeCN)<sub>2</sub>]PF<sub>6</sub>, and two complexes bearing diphosphines, [CpRu(PP)(MeCN)]PF<sub>6</sub> (PP = ²-EiBIPHEP\* and BIPHEP, \*awaiting results). The first complex is of particular interest due to its rare chelating Ru-bromoarene. To the best of our knowledge, this is the first report of a solid-state structure for a cationic Ru(II) complex bearing a bromoarene phosphine ligand. Studies are ongoing in our lab to investigate the reactivity of this Ru-bromoarene complex. Reactivity studies of other M-haloarenes suggest it may be active as a hydrogen transfer catalyst.

<u>COVID-19 impacts:</u> From March 2020 through summer 2020, the COVID-19 pandemic caused me to halt most of my laboratory work. During summer 2020, students were not able to stay on campus and very few faculty and staff were regularly on campus. Given the number of potential lab hazards, working alone was not an option. Fortunately, I was able to make progress on several writing projects (several chemical education articles and an ACS-PRF-UNI grant proposal). I resumed laboratory research with students in Fall 2020 with masking and social distancing.

# 2. Scholarship of Teaching & Learning: Chemical Education

Developing strong laboratory research and analysis skills is just one facet of preparing the next generation of scientific leaders and problem-solvers. To this end, my teaching & learning scholarship at NCF is centered around the design, implementation, and assessment of curricula aimed at building students' transferable 'soft' skills such as information literacy, problem solving, and professional writing.

Below, I elaborate on three In-Progress manuscripts (one invited ACS Symposium e-Book chapter and two journal articles) that describe three term-long, scaffolded Organic Chemistry lecture (a and b) and laboratory (c) projects. Common themes include transparent assignment design to improve skills development awareness, increase the potential for skills transfer, and improve equity by removing aspects of the 'hidden curriculum' of academia. Additionally, these projects foster student belonging in STEM by asking students to develop and transfer their knowledge and skills in real-world contexts of interest to them. Many students report that these projects are among the most impactful components of my courses as students can connect what they are learning in class to processes and phenomena in the real world. I have given presentations related to these projects at four National ACS Meetings (Spring 2020, 2021, 2022, and Fall 2022); two of these were selected for the SciMix. These accepted abstracts are included in my file.

- a. "Problem-solving our way to a sustainable future: An Organic Chemistry I student-driven research project"
  - I co-presided and presented on this work at a session of the Engaging Students with Real-World Context symposium at the Spring 2022 ACS National Meeting. I have accepted an invitation to submit a chapter to ACS Symposium e-Book: Engaging Students with Real-World Context; submission due March 31, 2022.
  - This invited e-book chapter (full draft included in my file) describes a scaffolded Organic Chemistry I
    research project I designed and implemented in Fall 2021. Students developed information literacy,
    problem-solving, and communication skills in the context of real-world problems related to the United
    Nation's Sustainability Development Goals. The chapter includes pedagogical motivations, student
    learning objectives, details on each project phase, implementation notes, and outcomes.

 The Fall 2021 curriculum described in this e-book chapter had similar features to projects in my Organic Chemistry I courses in Fall 2018 and 2020,<sup>7</sup> which I presented at the Spring 2020 ACS National Meeting. This abstract was accepted to SciMix. My presentation slides are published on <u>SciMeetings</u>.

## b. "Building information literacy and writing skills with Organic Chemistry Wikis and infographics"

• This in-progress article describes pedagogical motivations, learning objectives, implementation, and outcomes of scaffolded literature research projects in my NCF Organic Chemistry II Lecture course (Spring '19, '21, '22). In Spring 2019, students chose a molecule and developed a Wiki page on a class Wiki. I presented on this project in my Spring 2020 ACS National Meeting presentation (published on SciMeetings). After the NCF librarian who maintained this Wiki and left the college in 2020, I redesigned the project so that students developed an infographic on a molecule or set of molecules of their choice. Both the Wiki and Infographic project iterations are described in this article. This manuscript has been fully outlined and several sections have been written. I plan to submit this article to the Journal of Chemical Education during my Fall 2022 research sabbatical.

## c. "Replacing lab reports: Building professional writing instruction into Organic Chem II Lab"

- This in-progress article describes a curriculum-redesign of my Organic Chemistry II Lab in Spring 2020 into a Writing-Enhanced Course.<sup>8</sup> In this course, instead of standard lab reports, students learn to write in more professionally relevant genres: 2-page Memo reports and Journal Articles. During the first half of the semester, students are given role-playing scenarios for each experiment and write Memos to different audiences. In the second half of the semester, students write and revise all sections of a JOC-style Journal Article based on a four-step, three-week synthesis of hexaphenylbenzene. I co-taught this lab in Spring 2022 with VAP Levi Pap (now at FGCU) and will teach two sections in Spring 2022.
- I first presented this curriculum re-design at the Spring 2021 ACS National Meeting. My slides and
  presentation recording are published on <u>SciMeetings</u>. I gave an Oral presentation & Poster Sci-Mix
  presentation on both years of this curriculum at the Fall 2022 ACS National Meeting. I gave similar
  versions of this talk at the 2022 Florida Organic Faculty and 2022 Ohio PKAL Regional Meetings.
- I recently submitted an IRB proposal to collect information on whether participation in this curriculum helped students learn about writing in the sciences, improved their relationship with and attitudes about writing and their writing identity, helped in the development of their STEM (science, technology, engineering, and mathematics) identity, whether they perceive any gains in their development of transferable skills, and whether they believe the knowledge and skills they developed through this writing curriculum has helped them or will help them in their future endeavors. The results of this study will help to improve future student outcomes from participation in this curriculum at New College and at other institutions who may adopt/adapt this curriculum in response to publication of this work.
- This manuscript has been outlined and several sections have been written. I will include all three years of teaching this curriculum as well as the results from these surveys (pending IRB approval) into the manuscript. I plan to submit this work to the Journal of Chemical Education, after completion of this IRBapproved study, in Summer 2023.

#### Peer-Review Publication submitted while at NCF

Black, R. E.; Kilyanek, S. M.; Reinhard, E. D.; Jordan, R. F. Olefin Insertion Reactivity of a (Phosphine-arenesulfonate)Palladium(II) Fluoride Complex. Organometallics 2019, 38, 4250–4260. https://doi.org/10.1021/acs.organomet.9b00545

This article describes the synthesis of the phosphine-arenesulfonate Pd(II) fluoride complex (PO-OMe)PdF(lut) (2, PO-OMe = P(2-OMe-Ph)<sub>2</sub>(2-SO<sub>3</sub>-5-Me-Ph), lut = 2,6-lutidine) directly from Pd-Br complex 1 as an 82:18 mixture of cis-P,F and trans-P,F isomers, which isomerizes to a 1:2 cis-P,F:trans-P,F equilibrium mixture in

<sup>&</sup>lt;sup>7</sup> The independent research conducted for this project by two Fall 2020 students inspired them to develop a cross-disciplinary Chemical Ecology research project, carried out during ISP & Spring 2021. These students are now engaged in data processing and writing a manuscript for publication. I co-advised this project with Prof. Brad Oberle (NCF).

As part of the NCF general education program, all students must complete a Writing-Enhanced Course.

CD<sub>2</sub>Cl<sub>2</sub> solution at rt in ca. 3 days. This article also describes the reactivity of 2 with electron-deficient olefins, such as vinyl bromide (VBr), vinyl acetate, and vinyl benzoate. Several 1,2-insertion products were either isolated and crystallized or identified in solution by NMR studies. DFT analysis of the reaction of model complexes (cis-P,F- and trans-P,F-(PH<sub>2</sub>O)PdF(py), PH<sub>2</sub>O<sup>-</sup> = o-PH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>SO<sub>3</sub><sup>-</sup>) with VF supports a mechanism involving substitution of lutidine by VF followed by migratory insertion into the Pd–F bond. An alternative mechanism involving an exo attack of F<sup>-</sup> on bound olefin was found to be energetically prohibitive. DFT analysis of the reaction of the model complexes cis-P,F- and trans-P,F-(PH<sub>2</sub>O)PdF(VBr) supports an insertion/β-Br elimination mechanism.

I designed the experiment and conducted all lab experiments during my graduate program. While at NCF, I collaborated with Stephan Kilyanek to perform DFT calculations which allowed us to propose (and eliminate) some reaction mechanisms of my experimental work. While at New College, I co-wrote this manuscript with my graduate advisor, submitted it for publication, and made final revisions.

## Funding

## **External Grant Proposal:**

"Ruthenium(II) Complexes Bearing Base-Functionalized Bis(diphenylphosphino)biphenyl Ligands for Alcohol Acceptorless Dehydrogenation" R. Black (PI). American Chemical Society Petroleum Research Fund Undergraduate New Investigator (ACS PRF UNI) Grant. Fully Funded \$55,000 (Fall 2021–2023).

The goals of this proposal are to synthesize new ruthenium(II) complexes supported by amide-, alcohol-, amine-, carboxylic acid-, and non-functionalized 2,2'-bis(diphenylphosphino)biphenyl (BIPHEP) ligands and to evaluate their efficacy as alcohol acceptorless dehydrogenation (AAD) catalysts. The proposed functionalized complexes are expected to catalyze AAD reactions via metal-ligand cooperative activation of the substrate. The proposed research will also expand the set of known synthetic routes to BIPHEP derivatives, organometallic compounds, and catalysts. Undergraduate collaborators involved in the proposed research will learn and develop valuable research and scientific reasoning skills.

I developed and wrote this proposal and trained and supervised all student researchers on the project. This grant includes support for research supplies, conference travel, summer salary for the PI, and student researcher stipends (40% of the budget) during the academic year and summers during the funding period. During the 2021-2022 academic year, this grant supported 5 student researchers.

## Internal Grant Proposals:

- 2021 Faculty Development Funds. \$5,000. This proposal requested funds to support summer research and
  professional development activities. I worked with two student researchers (one new) for ten weeks (40
  h/wk), continued work on two manuscripts (b and c above in CHED research section), and participated in
  several NCF writing and teaching-focused workshops.
- 2020 Faculty Development Funds. \$5,000. This proposal requested funds to support summer research and
  professional development activities. I worked remotely with one student researcher, wrote an ACS-PRFUNI grant proposal, outlined two manuscripts (a and c above in CHED research section), developed a new
  course (Chemical Research, Communication, and Careers), converted Organic Chemistry I to an online
  course, and participated in several NCF and external workshops and courses.
- 2019 Faculty Development Funds. \$5,000. This proposal requested funds to support summer research and professional development activities. I trained and worked with one new student researcher for six weeks (30 h/wk), wrote, revised, and submitted a journal article (Organometallics 2019, 38, 21, 4250-4260), developed a new Fall course (General Chemistry 1), and participated in several NCF workshops.

## Rebecca Black Statement of Teaching October 2022

I aim for my students to leave each of my classes with an improved ability to (i) to describe and rationalize chemical properties and reactions and (ii) to ultimately propose solutions to real-world problems. I tell my students that learning general and organic chemistry is akin to learning a foreign language. To become fluent, both require us to first learn a shared vocabulary and then require a significant amount of practice, application, and immersion. I emphasize that students shouldn't simply memorize and reproduce textbook information. Instead, I want them to enter their next science course and the world with a toolbox of chemical conventions and models that they can apply to predict and explain the chemistry underlying so much of what they see around them. I want them to continually ask: How do I know? What is physically going on? How do I approach solving this problem? To answer these questions, I focus on helping my students develop key transferrable skills such as the ability to find, analyze, and utilize information and resources to solve problems and the ability to communicate effectively, both orally and in writing. Overall, my role is to offer transparent and intellectually-stimulating instruction, enthusiastic encouragement, and personalized support so that each student can achieve their academic goals and prepare for their future.

I work hard to make learning chemistry accessible and engaging for beginner learners: content-wise, skills-wise, and emotionally. As an introductory survey course, General Chemistry can feel like a smorgasbord of conceptually and computationally challenging topics. Some novice learners also struggle to see real-world value in what they are learning and to make connections between course units. Then, after learning a year of foundational chemistry 'topics' and completing many computation-heavy assignments, students enter Organic Chemistry which requires that they learn different discipline-specific conventions and to draw and interconvert between symbolic representations of molecules. The latter necessitates spatial reasoning skills which some students have not yet developed. Furthermore, many topics and skills in Organic Chemistry stack on prior ones; students must quickly learn certain concepts and skills before they can apply them in different contexts throughout the term/year. To help ease their transition into Organic Chemistry, I clearly outline the content and skillsets they will use most throughout the term/year. Each time I teach the Organic Chemistry sequence, I continue to fine-tune the pacing of topics to give students more time to practice certain skills before moving on. I also tell my students which topics and skills have been historically challenging for students (including myself!) to learn. When they realize they are not alone, this often leads to conversations about 'productive struggle' as part of the learning process and helps to normalize and destigmatize help-seeking.

I have found it incredibly rewarding to help students overcome negative preconceptions and attitudes about learning chemistry. Unfortunately, some students enter Organic Chemistry I fearing they will not be up to the challenge. As attitude and interest are intrinsically linked with learning gains, I start each mini-class explaining that learning chemistry is a *journey* and that each one of them is capable of succeeding in my course. I repeat this mantra regularly throughout the term and follow up this claim with wrap-around layers of support, resources, and clear and consistent course organization. These are key to my ability to keep my expectations high for all students in my academically-rigorous classes. I typically hold three office hours per week in a hybrid format to give students flexibility in attending. I reply quickly to questions by email and Canvas discussion boards and hold optional evening review sessions before exams. In each of my lecture courses, my students complete weekly problem sets so that I can give regular, individualized feedback to each student. I typically return these to students by the following class session. Many students over the years have commented that this timely feedback on assignments has been a critical component in their learning. After exams, I also seek to meet individually with every student who struggled so that we can discuss success strategies and behaviors they can try moving forward.

Course Development. When (re)designing my courses, I use Backward Design and Transparent Instruction approaches to scaffold assignments and projects through a course to help my students develop the content and skills required to achieve the course learning objectives. I also adapt my courses in response to student feedback throughout the term and use course evaluation feedback to improve future course iterations.

Student-centered pedagogies and high-impact practices. 'Doing science' is an active endeavor and an exercise in collaboration. Similarly, metacognition and science-of-learning research tells us that both active learning and collaborative activities, when implemented correctly, can enhance student learning and class equity. One benefit of teaching in a liberal arts context with small class sizes is that I can engage my students in a variety of student-centered pedagogies and high-impact practices. For example, in Fall 2019, I taught General Chemistry I in a Process-Oriented Guided Inquiry Learning (POGIL) format where students worked regularly during class sessions in small groups. In POGIL activities, students work together to develop core principles and concepts by analyzing data and answering a series of critical thinking questions. I have also progressively incorporated more POGIL-style activities into my Organic Chemistry lecture courses. Since Spring 2020, the shift to teaching online has caused me to broaden the ways I foster active learning and collaborative work in my classes, such as teaching Organic I and II online/hy-flex in 2020-2021 using a Flipped class model. As we moved back to in-person classes, I have continued to incorporate these approaches into my classes.

Course-embedded professional skills development. An important facet of a liberal arts education is the ability to learn academic content and skills while simultaneously developing transferrable, professionallyrelevant 'soft skills.' I have worked hard to intentionally weave skills-development into all of my courses. One way I do this is by scaffolding independent, term-long research projects into my high-enrollment General and Organic Chemistry courses. The main objectives for these projects are for students to develop information literacy, problem-solving, and communication skills and to learn in real-world contexts. In these projects, I ask students to research a topic of their choice related to course content and to communicate their findings to the class in different modes. I have been fortunate to collaborate with NCF librarians Helene Gold and Cal Murgu on several iterations of projects to introduce students to library resources, research strategies, chemistry literature databases, and issues of ethics and inclusion in the scholarly conversation. Most recently in my Fall 2021 Organic Chemistry I course, which I newly redesigned as a CYC course, my students investigated approaches that Organic Chemists are taking to solve problems related to the United Nation's Sustainable Development Goals. Final products of these research projects over the years have included reflections on news articles, Wiki entries, short oral presentations, and infographics. Many students report that these projects are among the most impactful components of my courses because it allows them to connect what they are learning to real processes and phenomena. Two Organic Chemistry I students in Fall 2020 were so engaged in their research project that it sparked the development of a Spring 2021 cross-disciplinary Chemical Ecology ISP (co-sponsored with Dr. Oberle). Other students have chosen to showcase their work on these independent study projects in their personal statements for summer REUs & internships or graduate applications.

Training Scientists to Write. It hurts when students say they want to study science because they don't like writing. They are unaware of how essential writing is to any career in science! Since arriving at NCF, I have repelled this misconception by incorporating intentional writing instruction into my courses. For example, in order for my students to practice "writing as learning" and metacognitive skills, I include low-stakes informal and reflective writing assignments in all of my classes. In Spring 2020, I redesigned my Organic Chemistry II Lab to become a Writing-Enhanced Course (WEC). In this course, my students learn to write in professionally-relevant genres such as Decision Memos and a full Journal Article based on a four-step organic synthesis. In my advanced elective course Organometallic Chemistry and Catalysis for Organic and Polymer Synthesis, students write several annotated bibliographies, hold journal-club style discussions of primary literature, and ask students to present on journal articles of their choice. Lastly, I created a WEC course called Chemical Research, Communication, and Careers, for (pre)thesis students to help them build community while writing their thesis (prospectus), develop healthy writing habits (e.g., writing incrementally, in community, and with frequent revising), and prepare application materials like a CV/Resume and statements for scholarships, post-college jobs, and graduate programs that interest them.

Scholarship of Teaching and Learning. In addition to my organometallic synthesis and catalysis research, I have been engaged in discipline-based education research. Reading discipline-based education research articles and books on teaching and learning has taught me many "best teaching practices." I have been engaged in the chemical education research community by presenting posters and talks at regional and national ACS conferences. I am excited to contribute back to this community through an invited ACS Symposium e-book chapter and two Journal of Chemical Education articles. More details on my Scholarship of Teaching and Learning can be found in my Statement of Research.

In my file, I have included a **Teaching Portfolio** which summarizes information about each of my <u>Courses</u>, <u>ISP</u>, and <u>Tutorials</u>, as well as <u>Senior Thesis Supervision</u>, <u>Service on Baccalaureate Committees</u>, and Other Teaching Activities.

## Summary of student enrollments and other teaching data

	2018-2019	2019-2020	2020-2021	2021-2022	Total
Course enrollments (initial)	81	64	47	48	240
Course enrollments (final)	74	61	39	43	217
Tutorial enrollment	0	3	6	11	20
ISP enrollment	10	2	4	2	18
Primary thesis sponsor	0	1	0	1	2
Service on Bacc Committees	1	4	4	7	16
Contracts Supervised	0	16	16	16	48

<sup>11, 4, 2,</sup> and 3 Chem or Chem/Bio AOCs conducted thesis work in 2019, 2020, 2021, and 2022, respectively.

Candidate:	Rebecca	Black	
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## DIVISION CHAIR EVALUATION:

Dr. Black is a strong candidate for tenure and promotion. She has excelled in teaching, research, and community service.

Teaching: Dr. Black has merged teaching and research education. She has infused new teaching techniques into the organic classes and labs to make them more student-centered. In addition, she has incorporated significant writing elements into the classes. Dr. Black has transformed the organic lecture into a CYC course organic lecture to be a CYC course, choosing to focus on information literacy, teamwork and problem-solving skills. She offered reflection assignments that gave students the chance to think about their own growth relative to teamwork and problem solving. This is a very different approach to teaching the class than in the past. To facilitate communication with students, Dr. Black designed a CANVAS page to assemble useful information and guidance in one place.

She has mentored a variety of thesis students who are directly involved in her research area. Often, students work with Dr. Black during ISP to learn techniques that might be useful for a more extended project. The collaborations are clearly successful as Dr. Black publishes the work with her students. In addition, Dr. Black has guided students working with others on thesis projects to complete chemistry work in her lab. Students appreciate the efforts that she has made to engage them more broadly in the study of chemistry. This is evidenced by the very strong teaching evaluations that she has received.

Research: Dr. Black has become a leader in chemistry education for how to teach undergraduates. She has participated in workshops online and have been invited to contribute an ebook chapter, "Problem-solving our way to a sustainable future: An Organic Chemistry I student-driven research project centered on the UN Sustainable Development Goals". Dr. Black has also submitted multiple articles to Journal of Chemical Education. These include information gleaned from organic lecture and lab courses at the college. The working titles are, "Organic Chemistry Infographics for building information literacy and writing skills", and "Replacing lab reports: Building professional writing instruction into Organic Chemistry II lab". As a member of VIPEr (Virtual Inorganic Pedagogical Electronic Resource),

Dr. Black participates in a learning community for inorganic teachers and students. Dr. Black has also engaged in a learning community where teaching materials for instruction in organic chemistry at college level are disseminated along with evidence-based, active-learning pedagogies.

In addition to her research education activities, Dr. Black has carried out a significant research project based on her Pertroleum Research Fund grant, entitled "Ruthenium(II) Complexes Bearing Base-Functionalized Bis(diphenylphosphino)biphenyl Ligands for Alcohol Acceptorless Dehydrogenation". This grant includes funding for engaging undergraduates in the work. She is also continuing to build partnerships with others in her field.

Service: Dr. Black has been selfless in her service. She has participated in Divisional work, including co-organizing the Natural Sciences Seminars. She also participated in the Associate in Chemistry search committee.

In the broader community she has been an integral part of establishing the new CYC curriculum, including doing training for other faculty. She served as NCUFF secretary for a year. Her Baking for a Cause program was very successful in helping students build community. Her community efforts are further evidenced by her tea cart for students to gather and enjoy a cup.

## PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS EVALUATION:

Submitted 2/17/2023

Professor Rebecca Black joined the New College faculty as Assistant Professor of Chemistry in August 2018, soon after earning her Ph.D. in Inorganic Chemistry from the University of Chicago. During her interview at NCF, she impressed the search committee with her interest in developing new pedagogical approaches, as well as her clarity in communicating difficult concepts during her research presentation. In the subsequent 4+ years, she has proven to be a highly valued member of our faculty.

Professor Black regularly teaches lecture and laboratory courses for the second-year chemistry sequence in organic chemistry, along with advanced courses in organometallic chemistry and catalysis. She taught the first-year course, General Chemistry I, in Fall 2019. She also offered the novel course, Chemical Research, Communication and Careers twice. Professor Black designed the latter to provide writing and career support for thesising students. One component of Professor Black's scholarship is research on teaching and learning, and her file includes two "in-progress" manuscripts on novel approaches for enhancing student learning in organic chemistry lecture and laboratory courses. A third manuscript, describing a course-based project with practical applications, is an invited book chapter for an American Chemical Society publication, demonstrating the visibility of her scholarship in this area. It is no surprise, then, that Professor Black continuously brings new approaches for building transferable skills to her work with students. She has supplemented this work by participating in a workshop offered at New College on Writing Enhanced Courses, as well as a Quality Matters course offered by the College. Professor Black is very responsive to student feedback and needs. For example, when students were feeling overwhelmed by content, she set up extra hours for them to meet with her, and when she found that her advisees needed one resource for finding important advising and support service information, she set up a Canvas page for them that included these resources. Students recognize and appreciate her deep care for them, including her detailed and constructive feedback on their work. Several letters in support of Dr. Black's tenure and promotion describe the "snack cart" that she has set up outside her lab for any students who need a quick pick-me-up. Others praise her attention to student needs, her "ability to transform challenging, complex information into fun, interactive activities," and her skill at mentoring students so that they learn from their failures, develop a growth mindset, and succeed.

In addition to her scholarship on teaching and learning, Professor Black has developed a research program in synthetic organometallic chemistry, with the goal of using diphosphine ligands to influence ruthenium-catalyzed dehydrogenation of organic substrates. Through this research program, Professor Black has mentored 11 students (chemistry, biology, and marine biology majors) in air and moisture-sensitive organic and inorganic synthetic techniques. Importantly, Professor Black has succeeded in funding this research through a prestigious American Chemical Society Petroleum Research Fund Undergraduate New Investigator Award (\$55,000). This award indicates strong confidence in Professor Black's research plan, as the funding rate for this competitive program is quite low. Since her arrival at New College, Professor Black has published one paper with her graduate research advisor in the top journal, *Organometallics*. Based on her graduate research, Professor Black conducted substantial work to complete the manuscript while at New College. Professor Black also has a manuscript near completion with six student coauthors, based on her funded research program at NCF. Last spring she took four of her students to present their work at the National American Chemical Society meeting, where one student's poster was chosen as a finalist for the Inorganic Chemistry Poster Competition.

Professor Black's combined scholarly efforts in pedagogical research, and synthetic chemistry and catalysis research conducted with students, prompted one external reviewer to write, "I feel that Dr. Black's scholarly activity embodies the ideals of the teacher/scholar model at undergraduate institutions, and that evidence for sustained scholarly work in the future is strong."

Professor Black has been extraordinarily active in both service efforts and community-building efforts. For the past two years she has served on both the Writing Advisory Committee, and the Chart Your Course (CYC) Implementation/Steering Committee. The latter committee has been instrumental in shaping our new liberal arts curriculum, and Professor Black's involvement has been strong. She co-developed and facilitated two versions of faculty training programs for CYC. She also facilitated a "Canvas Basics" course in July 2020 for New College faculty, and she served on the Spring 2020 search committee for a visiting assistant professor of biochemistry. She served as a co-organizer of the Natural Sciences Seminar Series for the last two years. Professor Black's community-building efforts have enhanced interactions between students, faculty, and staff. These include a successful "Chemistry Fun Day" in Spring 2019, sponsoring two student clubs – Baking for a Cause in AY 20-21, and New College Hoop Troop in AY 21-22- and organizing a weekly "Tabletop Game Night" at Cook Library for faculty, staff, and students since Spring 2022.

Professor Black excels in both teaching and service, and in a short time she has built a strong foundation in scholarship. The latter is impressive, considering the necessity to devote substantial time to setting up her laboratory space with equipment and supplies purchased with her start-up funds prior to beginning her research. Further, Professor Black makes important contributions to college-wide priorities. Her participation in Admissions events and her calls to admitted students have contributed to the College's enrollment efforts, while her engaged work in teaching and mentoring our students, along with her community-building efforts, contribute to improvements in retention, four-year graduation rates, and development of transferable skills for future success in jobs or graduate school.

Having read Professor Black's tenure file, I concur with the recommendations from the Division of Natural Sciences, Chair Sandra Gilchrist, and the Provost Advisory Committee that Professor Black has presented a very strong case, and is highly deserving of tenure at New College of Florida.



Office of the President

February 24, 2023

Assistant Professor Rebecca Black Division of Natural Sciences New College of Florida

#### Dear Rebecca:

I write to inform you that both Provost Suzanne Sherman and I have taken positive action on the recommendation from Natural Sciences and the PAC that you be granted tenure at New College of Florida. The recommendation from the Provost and President will be considered by the Board of Trustees, in accordance with the Collective Bargaining Agreement.

Congratulations on this milestone moment. Ever since New College was founded, our success has depended on the excellence of our faculty, and I am honored to recognize your accomplishments as a teacher and scholar.

y R.

In the meantime, warm congratulations once again, as well as thanks for your commitment to the mission of New College.

Sincerely,

Bradley Thiessen Interim President



## Office of the President

#### **MEMORANDUM**

TO: Bradley Thiessen, Interim Provost

FROM: Richard Corcoran, Interim President

DATE: April 14, 2023

SUBJECT: Tenure Recommendation Rebecca Black

Pursuant to Section 4.5 of the Faculty Handbook and Section 15.5 of the NCBOT-NCUFF Collective Bargaining Agreement (the "CBA"), I am submitting this memorandum as my statement detailing the extraordinary circumstances warranting my decision that is contrary to the Provost's recommendation regarding awarding tenure related to the candidate identified in the above-referenced subject line (the "Candidate"). In accordance with the Sections referenced herein, please supply copies of this Memorandum to the Candidate and the Provost's Advisory Committee (PAC).

I recommend the Board of Trustees defer its decision on awarding tenure to the Candidate. If that is not possible, I recommend denying tenure at this time. This recommendation is based on extraordinary circumstances including but not limited to: (1) changes in administration including new President and new Provost – whereby many of these positions are currently held in Interim status; (2) turnover of a majority of the Board of Trustees; (3) a renewed focus on ensuring the College is moving towards a more traditional liberal arts institution; and (4) the related current uncertainty of the needs of the divisions/units and College. These are all factors that I have appropriately taken into consideration in making decisions regarding tenure pursuant to Section 15.3(a) of the CBA.

## **NEW COLLEGE OF FLORIDA BOARD OF TRUSTEES**

Meeting Date: April 17, 2023

SUBJECT: Dr. Gerardo Toro-Farmer Tenure Package for Consideration

## PROPOSED ACTION

Consideration of tenure for New College faculty member Dr. Gerardo Toro-Farmer.

Sections 4.5 - 4.6 of the *New College Faculty Handbook* describe the College's policies and procedures for granting New College faculty tenure. Briefly these are:

- In August, candidates assemble their evaluation file for review; letters are requested from New College and outside references. The evaluation file is made available for review by faculty within the candidate's Division.
- The Divisional vote on tenure is conducted in November; a majority of three-fourths is required for a positive tenure vote.
- The Provost's Advisory Committee (comprised of two faculty representatives from each Division) independently reviews the application and forwards a positive or negative recommendation to the Provost.
- Based on a review of the file, the Divisional vote, and the PAC's recommendation, the Provost makes a recommendation to the President, who subsequently forwards a recommendation to the Board of Trustees.
- The final decision rests with the Board of Trustees.
- If tenure is not awarded, the candidate may stand again in the mandatory year without penalty.

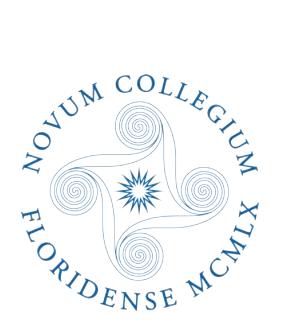
**Supporting Documentation Included:** Trustees have received relevant portions of the candidate's Tenure packet. Included are:

Candidate's Curriculum Vitae
External Review Letters
Support Letters from Students/Alumni/Colleagues
Provost's Advisory Committee Evaluation
Statements on Research/Teaching
Division Chair Evaluation
Provost's Evaluation
Interim President's Recommendation

Facilitators/Presenters: Brad Thiessen

Interim Provost and Vice President for Academic Affairs

**Other Support Documents Available:** The *New College Faculty Handbook;* in addition, the complete Tenure Packet is available in the Office of the Provost.



# NEW COLLEGE OF FLORIDA

# GERARDO TORO-FARMER

Division of Natural Sciences

Candidate for Tenure

2022 - 2023

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## GERARDO TORO-FARMER

Division of Natural Sciences & Environmental Studies Program New College of Florida 5800 Bay Shore Rd. Sarasota, FL 34243

Website: https://sites.google.com/ncf.edu/torofarmerlab

## EDUCATION

2011 Ph.D. in Ocean Sciences. University of Southern California - Los Angeles, CA. USA Dissertation: Underwater hyperspectral optical measurements as a tool for characterizing the spatial-temporal distribution of water column constituents contributing to ocean color.

1998 B.S. in Marine Biology. Universidad del Valle - Cali, COLOMBIA

Thesis: Assessment of biocrosion intensity by sea urchins (Echinodermata) in a coral reef from the Gorgona Island – Colombian Pacific coast.

#### ACADEMIC APPOINTMENTS

<ul> <li>Assistant Professor – New College of Florida</li> </ul>	2018 - Present
• Director of the GIS Certificate Program - New College of Florida	2019 - Present
<ul> <li>Postdoctoral Research Associate – University of South Florida</li> </ul>	2011 - 2018

## RESEARCH INTERESTS AND SKILLS

- Coastal zones ecology and biogeochemical processes.
- In situ marine optics, remote sensing, and geospatial analysis (GIS techniques) to answer ecologically relevant questions regarding organism distribution, ecosystem productivity, and habitat connectivity.
- Human perturbations on marine ecosystems.

## Technical knowledge

- Fieldwork and Laboratory experience: Methodologies for benthic studies (habitats and species distribution and dynamics), and biological and geochemical oceanography (chlorophyll concentration measurements, phytoplankton taxonomy, quantification of suspended materials, and POC). Optical packages and CTD data acquisition and data management. Underwater gliders, aerial drone deployments, mooring and buoys installation, and optical instrument implementation in remote vehicles. Proficient in equipment general maintenance and calibrations.
- Computer programming and visualization skills: ArcGIS, Matlab, JMP, Microsoft Access, SeaDAS, ENVI/IDL, ODV, HydroLight.

## Personal Skills

- Master Scuba Diver NAUI, Scientific diver AAUS (Nitrox, rescue diver, first aid, oxygen, CPR).
- Safety training: OSHA 24 hour HAZWOPER

## RESEARCH EXPERIENCE

- 2021-present Time-series Monitoring of Water Quality around the Seagrass Beds of Sarasota Bay New College of Florida / Cross College Alliance. Duties: Remote sensing and GIS analysis; water quality monitoring; summer interns' supervision.
- 2020 Effects of light quality on seagrass beds of Sarasota Bay: applications to in-situ and remotely sensed monitoring efforts New College of Florida / Cross College Alliance. Duties: Remote sensing and GIS analysis; water quality monitoring; summer interns' supervision.
- 2019-22 Seagrass SCAR Mapping in Sarasota Bay New College of Florida / Sarasota Bay Estuary Program / Cross College Alliance. Duties: GIS spatial analysis of seagrass scars.
- 2016 2018 Postdoctoral research associate. Population and Marine Ecosystem Dynamics Laboratory College of Marine Science, University of South Florida. Duties: Advanced geospatial analysis and modeling for the integration of biological and environmental data (Continental Shelf Characterization, Assessment, and Mapping Project "C-SCAMP"). Ocean optics, satellite oceanography, and water quality. Help mentoring graduate students.
- 2014 2018 "Center for Integrated Modeling and Analysis of Gulf Ecosystems (C-IMAGE)". BP/Gulf of Mexico Research Initiative (GOMRI) – University of South Florida. Duties: GIS spatial analysis of hydrocarbons distribution.
- 2012 2017 Hyperspectral signatures of phytoplankton functional types in preparation for GEO-CAPE algorithm and product development. Duties: Co-PI in three grants. Data collection, processing, analysis, and publication of results.
- 2011 2016 Postdoctoral research associate. Institute for Marine Remote Sensing College of Marine Science, University of South Florida. Duties: Proposals writing. Participation in various projects related to biodiversity, ocean optics, satellite oceanography, and water quality. Laboratory safety. Help mentoring graduate students.
- 2011 2016 "High-Resolution Assessment of Carbon Dynamics in Seagrass and Coral Reef Biomes".
  UAV Collaborative NASA University of South Florida. Duties: Cruise preparation and support.
  Data collection, processing, analysis, and publication of results.
- 2009 2011 "Philippine Straits Dynamic Experiment (PHILEX)". ONR. Duties: Cruise preparation and support. Data collection, processing, analysis, and publication of results.
- 2006 2011 "Monitoring Sediment Resuspension in Coral Reefs and Seagrass Beds with MODIS and ASTER Sensors". NASA, University of Southern California, The Bermuda Zoological Society. Duties: PI. Fieldwork preparation, data collection, and processing, data analysis, publication of results.

## TEACHING EXPERIENCE

## Courses taught (New College of Florida):

- 2022 (Fall) 1. Introduction to GIS; 2. Marine Ecology.
- 2022 (Summer) Coral Reef Issues (co-taught with Prof. Gilchrist)
- 2021 (Fall) 1. Introduction to GIS; 2. Introduction to Oceanography.
- 2021 (Spring) 1. GIS-II; 2. Coral Reef Ecology.
- 2020 (Fall) 1. Introduction to GIS; 2. Introduction to Oceanography.
- 2020 (Spring) 1. GIS-II; 2. GIS and Remote Sensing applications to Coastal and Marine Studies.

- 2019 (Fall) 1. Introduction to GIS; 2. Marine Ecology.
- 2019 (Spring) 1. Coral Reef Ecology; 2. Introduction to Oceanography.
- 2018 (Fall) 1. Introduction to GIS; 2. GIS and Remote Sensing applications to Coastal and Marine Studies.

## Teaching Prior to NCF:

- 2015 (August/September) Training personnel from the University of Fiji on: 1) Basic field and laboratory methods in coral reefs studies and oceanography. 2) Acquisition and analysis of satellite imagery to generate ocean color products and maps of reef habitats. Project: "Developing Base Maps of Tropical Aquatic Resources in the Pacific", University of Fiji, University of South Florida, USAID.
- 2014 (Fall) Invited lecturer, Satellite Oceanography: Underwater and above-water optical observations: equipment and approaches. College of Marine Science, University of South Florida.
- 2011 (Fall) Invited lecturer, Satellite Oceanography: Introduction to ENVI, Supervised and Unsupervised Classification. College of Marine Science, University of South Florida.
- 2008 (Spring/Fall) Head Teaching Assistant "Humans and their environment" University of Southern California.
- 2007 (Fall) Teaching Assistant "Introduction to Ecology" University of Southern California.
- 2007 (Spring) Head Teaching Assistant "Catalina Island Semester Independent Study" University of Southern California.
- 2006 (Fall) Teaching Assistant "Marine Biology" University of Southern California.
- 2006 (Spring) Head Teaching Assistant "Humans and their environment" University of Southern California.
- 2005 (Fall) Teaching Assistant "Introduction to Ecology" University of Southern California.
- 2003 (Fall) to 2005 (Spring) Head Teaching Assistant "Humans and their environment" University of Southern California.
- 1999-2000 Professor "Introduction to Biology" ICESI University, Colombia.

## ADVISING AND MENTORING EXPERIENCE

## Thesis Sponsor (New College of Florida): 2021-present Isabella Chandler

2021-present	21-present Isabella Chandler	
2021-2022	Bella Shuler	
2021-2022	Jessica Franks	
2019-2022	Maria Guardado	
2019-2022	Eliot Greene	
2019-present	Megan Delehanty	
2019-2020	Justin Williams	

## Student Committees (Graduation or expected Graduation date) (New College of Florida):

Simon Bustetter (2021), Liah Continentino (2022), Lydia Dykema (2022), Daniel Duprez (2021), Thomas Finnan (2021), Lexi Fox (2022), Telle Fugett (2022), Victoria Goldner (2022), Thomas Kane (2020), Kaitlyn Leonard (2022), Marena Long (2021), Tyler Menendez (2022), Kera Pasquerilla (2021), Marcela Prado-Zapata (2021), Adam Reinschmidt (2021), Lauren Rodriguez (2020), Elliott Schenker (2021), Raquel Valdes (2020),

## Advising and Mentoring Prior to NCF:

- 2015 Help mentoring graduate and undergraduate students studying the effects of changes in light and temperature in corals, with field and laboratory experiments. College of Marine Sciences, USF.
- 2014-2015 Help USF graduate students interested in water quality issues by training them during fieldwork in Clam Bayou (Pinellas County). College of Marine Sciences, USF.

#### OCEANOGRAPHIC CRUISE EXPERIENCE

2022	(ongoing, monthly) New College Observatory. R/V Limbatus
2017	(15 days) C-BASS Cruise. R/V Weatherbird II
2016	(6 days) C-BASS Cruise. R/V Weatherbird II
2014	(4 days) USF Mississippi Plume Cruise. R/V Pelican
2013	(16 days) GEO-CAPE Gulf of Mexico Field Campaign. R/V Pelican
2011/2012	(14 Days each) Florida Keys, South Florida Program. R/V Walton Smith
2011	(3 days) CARICO Time Series. R/V Hermano Gines
2009	(16 days) Philippine Islands. R/V Melville
2002	(25 days) Hawaii. R/V Kilo Moana
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#### FUNDING

- 2021-22 PI: Time-series Monitoring of Water Quality around the Seagrass Beds of Sarasota Bay. Cross College Alliance (~\$30K to support research and summer interns)
- 2021: Baseline Study of the Distribution and Health Indices of Key Tree Groups in the Myakka River Area Near the Flatford Swamp. Conservation Foundation of the Gulf Coast (\$4.8K).
- 2020 PI: Effects of light quality on seagrass beds of Sarasota Bay: applications to in-situ and remotely sensed monitoring efforts. Cross College Alliance (~\$4.5K to support a Summer intern)
- 2019 Co-PI: Seagrass SCAR Mapping in Sarasota Bay. Cross College Alliance (~\$4.5K to support a Summer intern)
- 2015 2017 Co-PI: Enhancing Marine Biodiversity Observation Networks with GEO-CAPE: short-term dynamics of phytoplankton groups in the context of regional ecosystem processes (\$63K).
- 2015 Co-PI: Optical characterization of oil slicks related to oil type and thickness. NOAA (\$45K)
- 2014 2016 Co-PI: Effects of GEO-CAPE viewing geometry and solar zenith angle on pigment concentration retrievals: calibration with international time-series programs and analyses of uncertainty at different latitudes, times of day, and season. NASA (\$45K).
- 2013 Co-PI: Major phytoplankton functional types in the Gulf of Mexico: A hyperspectral assessment in preparation of GEO-CAPE algorithm and product development. NASA (\$66K).
- 2012 Co-I: Phytoplankton hyperspectral signatures from aerial and underwater high temporal and spectral resolution measurements: new insights to support the GEO-CAPE science program requirements. NASA (\$39K).

## PROFESSIONAL SERVICES

## New College of Florida

2020-21 - 2022-23 Member, Natural Sciences Budget Committee.

2019-21 – 2022-23 Member, International Studies Committee.

2018 Reviewer - Fulbright Faculty Review Committee.

#### National and International

- 2022 present Member, Technical Advisory Committee, Sarasota Bay Estuary Program
- 2018 present Member Executive Committee, Aquatic Studies Group. Surface Biology and Geology (SBG) missions, NASA.
- 2019 2022 Reviewer of submissions, Colombian seminar of ocean sciences and technologies (Seminario Nacional de Ciencias y Tecnologías del Mar - SENALMAR)
- 2013 2015 Assessor for buoys design and deployment, and bio-optical data collection and analysis. CONABIO-Mexico.
- 2013 Evaluation of Ph.D. candidates. Marine Biology, Universidad del Valle.
- 2011 2017 Member Science Working Group (Ocean Group) GEO-CAPE mission, NASA.
- 2011 2017 Member Spectral Libraries Group Aquatic data products, HyspIRI mission, NASA.
- Ad hoc reviewer and panelist of proposals submitted to NASA (multiple Programs).
- Ad hoc reviewer for manuscripts submitted to:

Aquatic Ecosystem Health and Management Society, Estuaries and Coasts, International Journal of Tropical Biology and Conservation, Limnology and Oceanography, Marine Ecology Progress Series, Optics Express, Remote Sensing, Remote Sensing of Environment, Sensors, Sustainability.

#### SYNERGISTIC ACTIVITIES

- 2011 present Advisor, Mendeley Reference Manager software.
- 2006 2008 Summer Outreach Education (Saturdays at the Lab, lab tours, snorkeling with middle school groups), Catalina Island-Wrigley Institute, University of Southern California.
- 2003 2004 Volunteer, Echinoderms Collection (samples processing and maintenance). Natural History Museum of Los Angeles County.
- 2003 2004 Volunteer, Husbandry section (general duties). Aquarium of the Pacific, Long Beach California.

## PROFESSIONAL MEETINGS AND PROFESSIONAL DEVELOPMENT

- 2022 (October 17-21) NASA's Science Mission Directorate (SMD) Bridge Program Workshop. Online.
- 2022 (August 17-19) "Florida Coastal Challenges" program Research Summit. Florida Research Development Alliance (FloRDA). Ft. Lauderdale-Davie, FL USA.
- 2020 (October 14-29) Drones in the Coastal Zone Workshop US Southeast and Caribbean Regional Workshop. SECOORA. Online.
- 2020 (February 21) Drone Technologies, Education, Training, Research, and Applications. University of South Florida. Sarasota-Manatee FL USA.

- 2019 (June 12-14) Surface Biology and Geology (SBG) mission Community Workshop. NASA. Washington DC USA
- 2019 (June 10) Gulf of Mexico Monitoring Community of Practice: Water Quality and Habitat Workshop. Gulf of Mexico Alliance. Gulf Shores, AL USA
- 2015 (Sep. 15-17) A practical introduction to marine monitoring hardware and procedures. FixO3 -Istituto Nazionale di Oceanografia e Geofisica Sperimentale. Trieste, ITALY
- 2007 (Summer) Application of Remote and In-situ Ocean Optical Measurements to Ocean Biogeochemistry. University of Maine and NASA. Walpole, ME USA
- 2006 (Fall) Advanced Seminar in Remote Sensing and Modeling. University of Southern California. Los Angeles, CA USA.
- 2004 (Summer) Spatial Analysis and Modeling using ArcGIS. University of Southern California. Los Angeles, CA USA.
- 1998 (Summer) "Coastal tropical oceanography" and "Coral reef ecology". University of South Carolina. Isla Providencia, COLOMBIA.

## PUBLICATIONS

- 2020 Pulster E.L., Gracia A., Armenteros M., Toro-Farmer G., Snyder S.M., Carr B.E., Schwaab M.R., Nicholson T.J., Mrowicki J., Murawski S.A. A First Comprehensive Baseline of Hydrocarbon Pollution in Gulf of Mexico Fishes. Sci Rep 10, 6437 (2020). https://doi.org/10.1038/s41598-020-62944-6
- 2020 Pulster E.L., Gracia A., Snyder S.M., Romero I.C., Carr B., Toro-Farmer G., Murawski S.A. Polycyclic Aromatic Hydrocarbon Baselines in Gulf of Mexico Fishes BT Scenarios and Responses to Future Deep Oil Spills: Fighting the Next War (S. A. Murawski, C. H. Ainsworth, S. Gilbert, D. J. Hollander, C. B. Paris, M. Schlüter, & D. L. Wetzel, eds.). https://doi.org/10.1007/978-3-030-12963-7 15
- 2017 Romero I., Toro-Farmer G., Diercks A.R., Schwing P., Muller-Karger F., Murawski S., Hollander D. Large-scale deposition of weathered oil in the Gulf of Mexico following a deep-water oil spill. Environmental Pollution, 228: 179-189.
- 2017 McCarthy M.J., Colna K.E., El-Mezayen m.m., Laureano-Rosario A.E., Méndez-Lázaro P., Otis D.B., Toro-Farmer G., Vega-Rodriguez M., Muller-Karger F.E. Satellite remote sensing for coastal management: a review of successful applications. Environmental Management. doi:10.1007/s00267-017-0880-x
- 2016 Toro-Farmer G., Muller-Karger F., Vega-Rodríguez M., Melo N., Yates K., Cerdeira-Estrada S., Herwitz S. Characterization of Available Light for Seagrass and Patch Reef Productivity in Sugarloaf Key, Lower Florida Keys. Remote Sens. 8, 86. doi:10.3390/rs8020086.
- 2016 Murawski, S.A., Fleeger J.W., Patterson III W.F., Hu C., Daly K., Romero I., Toro-Farmer G.A.. How Did the Deepwater Horizon Oil Spill Affect Coastal and Continental Shelf Ecosystems of the Gulf of Mexico? Oceanography 29(3):160–173.
- 2016 Zhang M., English D., Hu C., Carlson P., Muller-Karger F.E., Toro-Farmer G., Herwitz S.R. Short-term changes of remote sensing reflectance in a shallow-water environment: observations from repeated airborne hyperspectral measurements. Int. J. Remote Sens. 37, 1620–1638.

- 2015 Turk D., Yates K., Vega-Rodriguez M., Toro-Farmer G., L'Esperance C., Melo N., Ramsewak D., Dowd M., Cerdeira-Estrada S., Muller-Karger F., Herwitz S., WR M. Community metabolism in shallow coral reef and seagrass ecosystems, lower Florida Keys. Mar. Ecol. Prog. Ser. 538, 35–52.
- 2015 Zhang M., Hu C., English D., Carlson P., Muller-Karger F.E., Toro-Farmer G., Herwitz S.R. Atmospheric Correction of AISA Measurements Over the Florida Keys Optically Shallow Waters: Challenges in Radiometric Calibration and Aerosol Selection. Sel. Top. Appl. Earth Obs. Remote Sensing, IEEE J., 8, 4189–4196.
- 2015 Lorenzoni L., Toro-Farmer G., Varela R., Guzman L., Rojas J., Montes E., Muller-Karger F. Characterization of phytoplankton variability in the Cariaco Basin using spectral absorption, taxonomic and pigment data. Remote Sens. Environ, 167:259–268.
- 2014 Colella M., Glasspool A., Jones R., McKenna S., Murdoch J.M.H, Murdoch T., Nagelkerken I., Noyes T., Pitt J., Smith S.R., Sterrer W., Toro-Farmer G., Ward J., Weil E., CARICOMP. Country Reports: Bermuda. In: Jackson JBC, Donovan MK, Cramer KL, Lam VV (editors). Status and Trends of Caribbean Coral Reefs: 1970-2012. Global Coral Reef Monitoring Network, IUCN, Gland, Switzerland. (Authors in alphabetical order)
- 2014 Abelev A., Babin M., Bachmann C., Bell, T., Brando V., Byrd K., Dekker A., Devred E., Forget M-H., Goodman J., Guild L., Hochberg E., Hu C., Jo, Y-H., Kelly M., Klemas V., Lee Z., Moisan T., Moses W., Muller-Karger F., Palacios S., Philpot B., Turpie K., Toro-Farmer G., Yu Q. Coastal and Inland Aquatic Data Products for the Hyperspectral Infrared Imager (HyspIRI) A Preliminary Report by the HyspIRI Aquatic Studies Group (HASG). Presented to NASA. (Authors in alphabetical order)
- 2013 Devred E., Turpie K.R., Moses W., Klemas V.V., Moisan T., Babin M., Toro-Farmer G., Forget M-H. & Jo Y-H. Future Retrievals of Water Column Bio-Optical Properties using the Hyperspectral Infrared Imager (HyspIRI). Remote Sens 5:6812–6837
- 2011 Jones B.H., Lee C.M., Toro-Farmer G., Boss E.S., Gregg M.C., Villanoy C.L. Tidally Driven Exchange in an Archipelago Strait: Biological and Optical Responses. Oceanography 24:142-155.
- 2010 Smith R.N. et al. USC CINAPS Builds Bridges: Observing and Monitoring the Southern California Bight. Robotics & Automation Magazine, IEEE, 17(1), 20-30.
- 2009 Cetinic I., Toro-Farmer G., Ragan M., Oberg C., Jones B.H. Calibration procedure for Slocum glider deployed optical instruments. Opt. Express 17 (18):15420-15430.
- 2008 Jones B.H., Cetinic I., Toro-Farmer G., Herzog K., Bianculli A., De Leon R., Ragan M.A., Reynolds W.T. The Light and Motion Sensor Program: Low cost coral reef monitoring. Proceedings of the 11th International Coral Reef Symposium, Ft. Lauderdale, Florida, 7-11 July 2008. Vol. 1: 589-593 (Session number 16).
- 2004 Toro-Farmer G., Cantera J.R., Londoño E., Orozco C.A., Neira R.. Distribution patterns and bioerosion of the sea urchin Centrostephanus coronatus (Diadematoida: Diadematidae), at the reef of Playa Blanca, Colombian Pacific. Revista de Biologia Tropical 52(1): 67-76, 2004.
- 2003 Londoño E., Cantera J.R., Toro-Farmer G., Orozco C.A. Internal bioerosion by macroborers in Pocillopora spp. in the tropical eastern Pacific. Marine Ecology Progress Series, Vol. 265: 289–295, 2003
- 2003 Cantera J.R., Orozco C.A., Londoño E., Toro-Farmer G. Abundance and distribution patterns of infaunal associates and macroborers of the branched coral (*Pocillopora damicornis*) in Gorgona Island (eastern tropical Pacific). Bulletin of Marine Science, 72(1): 207–219, 2003.

2001 Cantera J.R., Zapata F.A., Forero P., Francisco V., Jiménez J.M., Londoño E., Narváez K., Neira R., Orozco C.A. & Toro-Farmer G.. Organismos bioerosionadores en arrecifes de Isla Gorgona: 51-64. In: Barrios, L.M. & M. Lopez-Victoria (Eds.). Gorgona Marina: contribución al conocimiento de una isla única. INVEMAR, Serie Publicaciones Especiales No.7, Santa Marta, 160p.

#### MANUSCRIPTS IN PREPARATION

Toro-Farmer G., Franks J. An Exploration of GIS Interpolation Methods for Determining Trends in Environmental Factors Along the Elbow ridge, West Florida Shelf.

Toro-Farmer G., Shuler B. Spatial Analysis of Seagrass Bed Propeller Scarring in Sarasota County.

Chandler I., Toro-Farmer G. Harmful Algal Bloom Contributors in Sarasota Bay

## SELECTED PRESENTATIONS, EVENTS, AND PUBLISHED ABSTRACTS

2022 Ocean Science Meeting (Online).

<u>Poster</u>: Chandler I., Toro-Farmer G., & Guardado M. - Phytoplankton groups beyond Karenia spp.: who is contributing to Sarasota Bay's red tide events.

2019 American Fisheries Society & The Wildlife Society 2019 Joint Annual Conference. AFS. Reno, NV. Oral Presentation: Grasty S., Lembke C., Brizzolara J., Ilich A., Silverman A., Butcher S., Hughes E., Hommeyer M., Broadbent H., Gray J., Vivlamore A., Locker S., Toro-Farmer G., S. Murawski. - Combining Multibeam Sonar and Towed Camera Technologies for Habitat Mapping and Reef Fish Assessments in the Eastern Gulf of Mexico.

2016 Gulf of Mexico Oil Spill & Ecosystem Science Conference. Tampa, FL.

Oral Presentation: Romero I.C., Toro-Farmer G.A., Diercks A.R., Muller-Karger F., Brooks G.R., Larson R.A., Schwing P., Murawski S., Hollander D.J. - Deposition and redistribution of petroleum hydrocarbons following the Deepwater Horizon oil spill: Where is going and how long will it remain?

2014 Ocean Science Meeting. Honolulu, HI.

<u>Poster</u>: Romero I.C., Toro-Farmer G.A., Larson R.A., Schwing P., Hollander D. J. - Hydrocarbon deposition in deep-sediments following the Deepwater Horizon blowout: spatial analysis of organic geochemical signatures.

2014 Gulf of Mexico Oil Spill & Ecosystem Science Conference. Mobile, AL.

Oral Presentation: Romero I. C., Toro-Farmer G.A., Watson K., Brooks G.R., Larson R.A., Schwing P., Hastings D., Muller-Karger F., Hollander D.J. - Large-scale tracking of oil-derived hydrocarbons in deep-sediments of the Gulf of Mexico after the Deepwater Horizon oil spill.

2014 Ocean Science Meeting. Honolulu, HI.

Oral Presentation: Hollander D.J., Romero I.C., Schwing P., Toro-Farmer G., Brooks G., Kosta J. -Disentangling the roles of river discharge, productivity, oil burning & dispersant on the marine oil-snow deposition (MOSSFA) event following the DWH blowout.

2013 MOSSFA working group meeting, Tallahassee, Florida, October 22-23 2013.

- Oral presentation: Romero, I. C., Toro-Farmer G.A., Watson K., Brooks G.R., Larson R.A., Schwing P., Hastings D., Muller-Karger F., Hollander D.J. - Levels, sources and transport pathways of hydrocarbons in deep-sea sediments after the DWH blowout in the Gulf of Mexico.
- 2013 Exchange of Experiences on LME-related data and information issues. GEF, UNDP, Caribbean LME Project, UNESCO, IOC, IW:LEARN. Buenos Aires, ARGENTINA.
- Oral Presentation: Toro-Farmer G., D. Rueda, & F. Muller-Karger. Satellite Observations in Support of LME Governance: A Case Study for Data Exchange in the Wider Caribbean LME.
- 2012 Workshop for Remote Sensing of Coastal and Inland Waters. University of Wisconsin. Madison, WI USA.
- Oral Presentation: Toro-Farmer G., F. Muller-Karger & C. Hu. Remote Sensing Applications to Monitor Coral Reefs in Coastal Shallow Waters.
- 2012 Oral Presentation (Invited): Toro-Farmer G. "Una mirada a la salud de nuestros océanos desde el Espacio" (A glance to our oceans' health from the space). Universidad del Valle, Cali, COLOMBIA.
- 2011 2nd Reef Resilience Conference "Planning for Resilience". Florida Reef Resilience Program (FRRP). Fort Lauderdale, FL USA.
- Oral Presentation: Toro-Farmer G., F. Muller-Karger, M. Eakin, L. Guild, R. Nemani, J. Li, M. Vega-Rodriguez, T. Christensen, L. Wood, C. Ravillious, C. Hu, C. Nim, C. Fitzgerald, J. Hendee, L. Gramer, & S. Lynds. High-Resolution Satellite Tools for Florida: Warm Water Bleaching and Cold Stress Indices.
- 2010 Ocean Optics XX. The Oceanography Society. Anchorage, AK USA
- <u>Poster</u>: Toro-Farmer G., E. Boss, C. Lee, I. Cetinic, & B. Jones. Use of hyperspectral IOP measurements on a towed vehicle to resolve phytoplankton and particle variability in a tidally driven archipelago strait.
- 2010 Ocean Sciences Meeting. Portland, OR USA.
- Oral Presentation: Toro-Farmer G., B. Arnone, R. Gould, M. Ragan, S. Ladner, E. Boss, C. Lee, & B. Jones. Validation of Ocean Color Products for a Complex Archipelago Strait with In-Situ Quasi-Synoptic Optical Measurements.
- <u>Poster</u>: Jones B.H., E. Boss, C.M. Lee, G. Toro-Farmer, and M. Ragan. Generation and variability of optical signatures in the tidally driven San Bernardino Strait.
- <u>Poster</u>: Cabrera O.C., E. Boss, C.L. Villanoy, L.T. David, B.H. Jones, and G. Toro-Farmer. Variability in the Optical Signature of the Archipelagic Waters of the Philippines.
- 2008 Ocean Optics XIX. The Oceanography Society. Barga, ITALIA.
- <u>Poster</u>: Toro-Farmer G., B. Jones, D. Kiefer, and T. Murdoch. Sediment Resuspension in Coral Reefs Measured with in-Situ Optical Measurements and Satellite Sensors.
- <u>Poster</u>: B. H. Jones, G. Toro-Farmer, I. Cetinic, N. Nezlin, and M. Ragan. Validation of MODIS algorithms for remotely sensed coastal ocean color using autonomous vehicles.
- 2008 11th International Coral Reef Symposium. Fort Lauderdale, FL USA.
- Oral Presentation (Invited): Toro-Farmer G., and B. Jones. Light attenuation measurements in Bermuda reefs.
- 2008 Joint Workshop on NASA Biodiversity, Terrestrial Ecology, and Related Applied Sciences. University of Maryland, Adelphi, MD USA.
- <u>Poster</u>: Toro-Farmer G., D. Kiefer, and B. Jones. Remote sensing and in-situ optical measurements of resuspended sediments in coral reefs and seagrass beds.

- 2008 Ocean Sciences Meeting. Orlando, Florida USA.
- <u>Poster</u>: Toro-Farmer G., B. Jones. Monitoring sediment resuspension in coral reefs and seagrass beds with in-situ optical measurements.
- 2008 Fall Graduate Student Seminars. Marine Environmental Biology.
- Oral Presentation: Toro-Farmer G. Characterizing optical properties in coral reefs under natural and disturbed conditions with in situ and remote sensing measurements.
- 2008 Summer Seminar Series. Wrigley Institute for Environmental Studies. Catalina Island, CA USA.
- Oral Presentation: Toro-Farmer G. Water column optical properties around a kelp forest.
- 2008 Spring Graduate Student Seminars. Marine Environmental Biology.
- Oral Presentation: Toro-Farmer G. Sediment resuspension in coral reefs and seagrass beds: in-situ optical instruments and satellite sensors.

#### DISTINCTIONS

- 2013 Group/Team Award. NASA Ames Honor award for research. Seagrass/coral reef UAV team.
- 2009 Travel grant. Diversity Enhancement Placement Assistance Awards, Office of Graduate Programs, University of Southern California: Summer research at the Naval Research Laboratory - Stennis.
- 2009 Scholarship. Eonfusion Program, Myriax Software Pty. Ltd.: Awarded access to Eonfusion GIS 4D spatial software.
- 2006 2010 Fellowship. Earth and Space Science Fellowship program NASA: Monitoring Sediment Resuspension in Coral Reefs and Seagrass Beds with MODIS and ASTER Sensors.
- 2006 2007 Summer Fellowship. Wrigley Institute for Environmental Studies. Catalina Island, CA USA: Spatial-temporal variations of water column optical properties in the kelp forest ecosystem.
- 2005 Summer Internship. Bermuda Reef Ecosystem Assessment and Mapping (BREAM) project. The Bermuda Zoological Society and Bermuda Aquarium, Museum and Zoo. BERMUDA.
- 1995 Fellowship. Spatial variability in coral reef communities since 125.000 years ago. Dr. John M. Pandolfi Smithsonian Tropical Research Institute. Panama City, PANAMA.



September 27, 2022

To whom it may concern,

This letter contains my independent evaluation of Dr. Gerardo Toro-Farmer's overall record as he is considered for promotion to Associate Professor of Coastal and Marine Sciences in the Division of Natural Sciences at New College of Florida.

I first met Dr. Toro-Farmer in 2007 when we participated at an optical oceanography course at the University of Maine. Later in 2011, Dr. Toro-Farmer joined Dr. Frank Muller-Karger's team at the University of South Florida as a post-doctoral fellow while I was pursuing my PhD within the same group. After that, Dr. Toro-Farmer and I have occasionally met during NASA Proposal Review Panels.

Dr. Toro-Farmer is a well-known optical oceanographer with extensive experience in the field of ocean optics, optical instrumentation and field work, and ocean color remote sensing of coastal environments such as coral reefs and seagrass beds. Dr. Toro-Farmer's experience and successful career is supported by a significant number of peer-review publication in well-known oceanography journals. He has worked in a broad spectrum of topics including coral reefs, satellite remote sensing and atmospheric correction, oil spills, fisheries, and phytoplankton. Which demonstrate his ability to extend and apply his knowledge to a wide variety of oceanography topics, including major environmental disasters such as the Deep-water horizon oil spill. Most of Dr. Toro-Farmer's work happens as large collaboration with investigators from all over the world and top experts in the field, which speaks to his collaborative nature. Toro-Farmer hits over 650 citations which undeniably indicate the impact of his scientific work.

It is important to emphasized that Dr. Toro-Farmer is an expert with field instrumentation and field work. He has participated in over 8 major oceanographic field campaigns and has spent nearly 90 days at sea. He has also planned and lead field work that includes the use of high-end technology such as gliders and unmanned aerial vehicles. Dr. Toro-Farmer has also dedicated a good amount of effort seeking funding, which is a difficult task and very time consuming. He was a PI and co-PI on several proposals, many successful, during his time at the University of South Florida. He has continued to seek funding for his research and summer interns while at NCF, with 4 standing awards since 2019.

In addition to his academic achievements, Dr. Toro-Farmer has always found time to share his knowledge beyond scientific publications and presentations. He is an excellent and dedicated educator. I can personally attest of his exceptional teaching skills and his dedication to students. Dr. Toro-Farmer doors were always open to graduate students at USF and he was with no doubt very influential in the dissertation and career paths of several USF marine science students. In the years that Dr. Toro-Farmers has been at NCF, he has been the thesis sponsor for 7 students



and is a committee member for 16 students. He has also been teaching two courses per semester. Dr. Toro-Farmer has even trained personnel at the University of Fiji.

Dr. Toro-Farmer also participates as an ad hoc reviewer and panelist of proposals submitted to NASA, as well as a reviewer for manuscripts submitted to several prestigious journals. He is a member of 3 committees and the GIS Certificate Program Coordinator at New College of Florida. He has also participated in several NASA working groups and is currently a member of the Executive Committee for Aquatic Studies Group as part of the Surface Biology and Geology (SBG) missions at NASA.

I would like to emphasize that Dr. Toro-Farmer is not just any oceanographer teaching undergraduate courses. Dr. Toro-Farmer is bringing to the table an expertise beyond most scientists. Dr. Toro-Farmer has a solid foundation in oceanography, a deep understanding of field instrumentation and field work, an expertise in GIS and scientific programming, and expertise in satellite remote sensing, all of this coupled with an uncanny ability to translate this into outstanding educational lessons that are better preparing the next generation of scientists and engineers. The future of science is leading towards large collaboration, multidisciplinary work, integration of technology and big data. Dr. Toro-Farmer has the knowledge and the tools to guide our future scientists.

It has been my absolute pleasure to write this recommendation letter for Dr. Toro-Farmer. He is an outstanding scientist and dedicated professor not only to his students, but also the scientific community. Dr. Toro-Farmer has achieved national and international recognition for his work and has shown exceptional potential for leadership and made major contributions to science. Dr. Toro-Farmer's overall record of accomplishments speaks for itself, and I am confident his service to our scientific and academic community will be more than enough to grant him the promotion to Associate Professor of Coastal and Marine Sciences in the Division of Natural Sciences at New College of Florida.

Best regards,

Inia M. Soto Ramos, Ph.D.

Some Mc St.

Associate Research Scientist

SeaBASS and EXPORTS data manager

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RECEIVED SEP 2 8 2022

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## Digna T Rueda-Roa (PhD)

Biological Oceanographer / Marine Biologist

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- · https://oceanexpert.org/expert/dignarueda

Saint Petersburg, September 25th, 2022

Dr. Sandra Gilchrist Professor of Biology and Marine Science New College of Florida

Dear Dr. Gilchrist,

Here is my Review of the Scholarly and Professional Activities of Dr. Gerardo Toro-Farmer.

I am a Scientific Researcher at the College of Marine Science at the University of South Florida. I met Dr. Gerardo Toro-Farmer in 2011 when he started a position as a Postdoctoral Research Associate at the Remote Sensing Laboratory during my last year of doctoral research at that laboratory. After my graduation we continued collaborating on different science related topics and in 2015 I returned to work in the lab as a post doc, and Dr. Toro-Farmer was still in the lab. We worked in the lab for several more years. I have seen first-hand the work of Dr. Toro-Farmer where he skillfully guided master's and doctoral level students in various aspects of their research. I have also witnessed the high quality of his scientific research.

Below I am summarizing different metrics that testify to his scholarly and professional achievements as a marine science scientist. Dr Toro-Farmer has publications that are nationally and internationally disseminated and peer reviewed. He has conducted high quality research that is appropriate to his discipline and reflects good research standards.

#### Published Work:

- Or. Toro-Farmer, has 15 peer-reviewed publications plus 2 in preparation. He also has other types of publication including: 2 book's chapters, 2 technical reports, and 1 symposium proceeding. 14 of his publications have at least 10 citations, and Google Scholar shows 664 citations for his publications
  - (09/08/2022: <a href="https://scholar.google.com/citations?hl=en&user=Z-Qe2UUAAAAJ">https://scholar.google.com/citations?hl=en&user=Z-Qe2UUAAAAJ</a>).
- Or. Toro-Farmer has <u>published in several journals with high Impact Factor</u>, such as Remote Sensing of Environment (13.850) Environmental Pollution (9.988), Remote Sensing (5.349), and IEEW Robotics & Automation Magazine (5.229). The impact factor of the journals where he has published varies between 13.850 to 0.803 with a mean impact factor per publication of 4.571.



## Digna T Rueda-Roa (PhD)

Biological Oceanographer / Marine Biologist

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#### Presentations and Lectures:

- O Dr. Toro-Farmer is experienced in presenting research at scientific meetings, workshops, seminars, symposia, etc. He has presented 11 oral presentations and 8 posters in 16 national and international conferences, meetings, symposiums and workshops (USA, Colombia, Italy, Argentina). Two of the oral presentations were for invitation (11th International Coral Reef Symposium. Fort Lauderdale, FL USA., 2008; Universidad del Valle, Cali, Colombia, 2012).
- Dr. Toro-Farmer was an Invited Lecturer at USF-CMS during 2 semesters.

## Evidence of national recognition of the quality of work:

 Dr. Toro-Farmer, as part of the team "Seagrass/coral reef UAV team", received a Team Award from "NASA Ames Honor award for research" in 2013.

## Professional Activities Demanding Expertise:

- Grants and external support:
  - Dr. Toro-Farmer has been PI, Co-PI and Co-I, for nine research grants since 2012, being the PI for the two more recent grants.
  - Through his bachelor and doctoral studies, Dr Toro-Farmer won several fellowships, scholarships, and internships.

## Dr. Toro-Farmer is very active in different professional activities, as detailed below:

- Served as reviewer and as panelist of several scientific proposals submitted to NASA.
- Member of two science working groups (GEO-CAPE mission, NASA, and HyspIRI mission, NASA)
- Active reviewer of scientific manuscripts submitted to different peer-reviewed journals (12 Verified Peer Reviews in Web of Science: https://www.webofscience.com/wos/author/record/1194431).
- o Forms part of the Technical Advisory Committee of the Sarasota Bay Estuary Program,
- Forms part of the advisory committee for buoys design and deployment, and bio-optical data collection and analysis.
- Ample experience in oceanographic cruises, having participated directly on nine cruises ranging from 3 days to 25 days.
- Advising and mentoring of several graduate and undergraduate students during his time at USF.



## Digna T Rueda-Roa (PhD)

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Besides being an accomplished scientist, Dr. Toro-Farmer is an educator at heart. He taught undergraduate courses at the University of Colombia for 2 years (1999-2000). During his doctorate he had several appointments as a teaching assistant (2003-2008). While working at the University of South Florida, he mentored several undergraduate and graduate students and gave short internal presentations to help graduate students understand concepts around marine optics and the use of GIS. He was also an invited lecturer at USF for 2 semesters. Dr. Toro-Farmer also trained staff from the University of Fiji in field and laboratory methods for coral reefs and oceanography, and in the use of remote sensing imagery.

I sincerely believe that Dr. Gerardo Toro-Farmer would be an excellent addition to New College of Florida's faculty as Associate Professor.

Regards,

Digna T. Rueda-Roa

## BOWDOIN COLLEGE

24 September 2022

## Dear Professor Gilchrist,

It is my pleasure to submit this evaluation of the scholarship of Dr. Toro-Farmer as part of his review process for tenure and promotion. I want to say at the outset that I have known Gerardo for a number of years since he was a student in a summer course in optics that I co-instruct. I have followed his career over the years (and I do with the students that pass through this course). Thus, I feel that I can provide an unbiased assessment. Second, I would like to provide context for my evaluation as I am also a professor in a small liberal arts college that emphasizes teaching and pedagogy but also requires rigorous scholarship that take the shape of an active research program in the STEM fields, with particular emphasis on engaging undergraduate students in that research. Thus, I understand the many challenges and opportunities that come with Dr. Toro-Farmer's position. From his cv, it is apparent that he is entering into his fifth year at the New College of Florida as an assistant professor after a 7-year position as a postdoctoral research associate at the University of South Florida. With this background, I have separated my review into three parts.

Academic Responsibilities - In order to frame Dr. Toro-Farmer's scholarship, I start by evaluating his academic responsibilities, including teaching load, advising and mentoring, as well as committee work. Dr. Toro-Farmer's teaching load is 2 courses per semester. He had served as major advisor to at least one student per year as served on approximately 17 student thesis committees over the last two years. He has served on 1 college committee per year, while maintaining membership on 3 external (professional) committees.

Research Projects and Funding – To contextualize Dr. Toro-Farmer's scholarship, I examined the trajectory of his research program. In his post-doc Dr. Toro-Farmer maintained at least two research projects continuously. Since becoming a professor, he has maintained nearly the same level of research project activity. This is an impressive trajectory for a young scientist transitioning from full time research to full time academia with his academic responsibilities. Looking through the funding record it is clear that Dr. Toro-Farmer is building a strong extramurally funded independent research program.

I also note that Dr. Toro-Farmer's research is observationally based. A solid observationally based field program is expensive and takes a lot of time to build. It also takes more time to collect, analyze and interpret an observational data set because it requires adequate temporal and spatial resolution and breadth to resolve interpretable patterns. Thus, a bit more time is necessary to move this type of research program to the publication stage, compared to a laboratory-based experimental program or a modeling program.

The research programs that Dr. Toro-Farmer is developing will provide rich opportunities for undergraduate research and these collaborations, which, if well managed and structured, can be fruitful for student-professor publications. Another positive aspect of Dr. Toro-Farmer's research program is that it is not focused on one single area but is balanced across two important topics biogeography and ecology of reef and seagrass communities and oil spill impacts, the latter of which ranges from optics and remote detection to ecological impacts. This suggests that Dr. Toro-Farmer will have multiple pathways to maintain a successful funding profile, with multiple collaborators and publications.

Publication Record - Dr. Toro-Farmer's publication record reveals relatively few first author papers (2004 and 2016) over his career, prior to joining the New College. That said, he has a deep roster of collaborative publications (17 over 17 years). Since joining New College, he has published two collaborative papers, which demonstrates a somewhat slowed publication rate. However, given his increased academic responsibilities as well as the time and effort it takes to establish his own research program after his postdoctoral position, it does not appear problematic. I also note that the pandemic cannot be ignored and may represent 1-3 lost years depending upon how the New College handled students and courses, how Florida handled research programs, and how funding agencies handled dispersments.

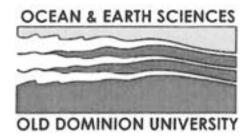
In conclusion, Dr. Toro-Farmer appears to be well on his way to solidifying a solid research profile, complete with active extramural funding and tremendous opportunities for enriching undergraduate research. I would encourage him to spend time outlining specific research questions within his work that can be targeted to students. This will move these ideas to the research phase, positioning each project to the point of a paper draft from the students. Then Dr. Toro-Farmer can focus on the last step of moving the draft to submission. He will find this approach a robust way to increase publications while not significantly increasing his already admirable efforts. I recommend that Dr. Toro-Farmer be promoted, and I look forward to seeing his good work in the coming years as well as that of his students.

Sincerely,

Collin Roesler, Ph.D.

Call Rash

William R. Keenan Professor of Earth and Oceanographic Science-----



The Department of Ocean, & Earth Sciences Old Dominion University Norfolk, Virginia 23529-0276 (757) 683-4285 Fax (757) 683-5303 https://www.odu.edu/oes

14 August 2022

Sandra Gilchrist, Ph.D.
Professor of Biology & Marine Science
Chair, Natural Science
New College of Florida
5800 Bay Shore Rd
Sarasota, FL 34243

RE: External evaluation of Dr. Gerardo Toro-Farmer

Dear Professor Gilchrist,

I have examined the tenure & promotion materials provided for Asst. Professor Gerardo Toro-Farmer. For the record, I have known Dr. Toro-Farmer since he was a graduate student at USC. I have followed his research since then and have communicated with him periodically about our common research interests. Other than loaning him some research equipment for field studies conducted for his Ph.D. dissertation, he and I have not actively collaborated on any research projects or publications and are not currently doing so. Consequently, I feel that my evaluation of his academic performance would be free of any personal conflicts that might bias my opinions.

Dr. Toro-Farmer appears to have an appropriately active, and moderately funded, program of scholarly research on the ecology and remote sensing of coastal marine ecosystems. His expertise in coastal marine ecology, aquatic optics, GIS, and remote sensing seem particularly relevant to the educational and scholarly missions of New College of Florida. The citation statistics show that his scholarly publication efforts are gaining considerable recognition. Google Scholar reports 656 total citations to his published works, with an H-index of 12. More importantly, his annual citation rate appears to be growing and now exceeds 70 per year. Dr. Toro-Farmer authored several highly regarded papers prior to joining the faculty of New College of Florida, and his tenure package provided three thought-provoking manuscripts nearly ready for submission to major academic journals. I was particularly interested in the manuscript on prop scar detection, as I have done some work on that subject recently myself. The state of Florida has more registered recreational vessels, and more total seagrass habitat, than any state in the USA and the issue of prop scar damage is becoming an increasingly important, but difficult to quantify, management concern. Consequently, I suspect there will be considerable opportunity for Dr. Toro-Farmer to apply his expertise in GIS and shallow water remote sensing to this emerging problem in ways that will continue to generate funding for his scholarly activities and research opportunities for his students.

Dr. Toro-Farmers recent publication rate would be cause for concern at a more research-focused university, but I would like to acknowledge a few important differences between New College of Florida and e.g., my institution. First Dr. Toro-Farmers teaching load has been considerably higher than that expected for our junior faculty. Although I was not provided any information allowing me to comment on the quality of his teaching, the quantity of his teaching – 2 courses per semester, including some summer teaching, with 7 different course preps over 4 years, vastly exceeds the teach loads expected of our junior faculty (1 course per semester, 2 to 3 different course preps over 6 years). Further, our tenure clock extends to 6 years, not 4, providing more time for new faculty to publish the results of their research programs. Further, the three manuscripts (in prep) appear nearly ready for publication, and I expect his productivity will continue to grow during his tenure as Associate Professor.

Consequently, I find his scholarly accomplishments to date to be compatible with promotion to Associate Professor, with tenure at New College of Florida. Please feel free to contact me if you feel I can be of further assistance in your deliberation.

Sincerely,

Date: 2022.08.14 12:29:16 -04'00' Adobe Acrobat version: 2022.002.20191

Richard C. Zimmerman, Ph.D. Professor of Ocean & Earth Sciences Graduate Program Director RECEIVED

AUG 1 5 2022



School of the Earth, Ocean & Environment

10 August 2022

Dr. Sandra Gilchrist gilchrist@ncf.edu
Professor of Biology and Marine Science
Chair, Natural Science
New College of Florida
5800 Bay Shore Road
Sarasota, FL 34243

#### Dera Professor Gilchrist:

You have requested that I provide an external evaluation of the scholarship of Dr. Gerardo Toro-Farmer, Assistant Professor of Coastal and Marine Sciences in the Division of Natural Sciences at New College of Florida, as an input to his application file for tenure and promotion to Associate Professor. I am happy to do so. I met Dr. Toro-Farmer on several occasions in Colombia around 1996-2000, while he was still an undergraduate students at Universidad del Valle, and also after he had just graduated with a BS degree in marine biology. Although, we have not met in person since he became a PhD student at USC, a very long time ago, we have stayed in touch over the years by email. Thus, most of my assessment will be based on Dr. Toro-Farmer's cv, which you sent to me.

I am quite familiar with New College as one of your students in the 1980's became a PhD student at the University of South Carolina. Although I was not her major professor, she worked for some time in my lab. Before accepting her into our graduate program, we looked closely at her background and, in the process, became quite familiar and impressed with New College of Florida.

Dr. Gerardo Toro-Farmar has a solid academic background, a BS degree in marine biology from Universidade del Valle in Cali, Colombia, a first rate Latin American institution, followed by a PhD from University of Southern California in ocean sciences in 2011, with a focus on hyperspectral measurements of ocean color. In both his undergraduate and graduate programs, Dr. Toro-Farmer has proven to be a hands-on scientist with lots of field experience and the ability to operate, program, and maintain complex oceanographic instruments, not a trivial feat. He also became a NAUI Master Scuba diver, and an AAUS Scientific diver, including diving on both air and nitrox, and specially trained in rescue and CPR. Dr. Toro-Farmer also has

significant ship-board experience, having participated in eight oceanographic cruises 2002-2017 in the Gulf of Mexico and in the Pacific. The combination of this solid expertise and rich experiences translate well to an academic teaching environment, where practical knowledge of instruments, SCUBA diving, and onboard ships can be used effectively to teach groups of students the how-to-do of field oceanography, not just the theory from books.

I obviously cannot comment on the teaching effectiveness of Dr. Toro-Farmer but note that he has already taught a series of courses at New College of Florida, which I would consider mainstream and important, especially for an undergraduate marine science program, including Introduction to oceanography, Coral reef ecology, GIS and remote sensing, and Marine ecology. The ability to work with GIS and remote sensing, in particular, are skills that readily help students get employment upon graduation. I also note that Dr. Toro-Farmer has earlier taught occasional courses at University of South Florida and University of Fiji. In addition, Dr. Toro-Farmer has served on numerous student committees at New College of Florida, having completed the supervision of one student thesis with six more in progress. It is very clear that Dr. Toro-Farmer is fully engaged in teaching and mentoring of students at New College of Florida.

Prior to joining New College of Florida in 2018, Dr. Toro-Farmer served as a post-doctoral research associate at the University of South Florida for seven years, 2011-2018. He was a co-Pl on five externally funded research projects with a focus on hyperspectral ocean measurements to develop algorithms and assessments, and to map phytoplankton, seagrasses, and oil spills. During his years as a post-doc, Dr. Toro-Farmer engaged in working groups and mission planning with NASA, which continues to date. Throughout his career, he has given many presentations at science meetings, covering his years as a PhD student, his years as a post-doc, and also while a faculty member at New College of Florida. While a post-doc at University of South Florida, he published at least eight papers as a co-author with Dr. Frank Muller-Karger, who is considered the global leader of remote sensing of marine environments, indicating that Dr. Toro-Farmer collaborates with and receives mentorship from the very best.

Publications are the best measure of scholarship and research completed. Dr. Toro-Farmer has a solid publication record with a total of 21 listed publications, four of which resulted from his undergraduate research on reef processes in coastal waters of Colombia, five as a result of his time as a PhD student at USC, some ten while a post-doc at University of South Florida, and two since becoming a faculty member at New College of Florida. Most of the journals in which he has published would be considered as the appropriate journals for dissemination of the results for a researcher in marine ecology and the application of remote sensing. I note that Dr. Toro-Farmer mostly serves as one of several co-authors, working and publishing with a team of researchers, which is quite common in the marine sciences and in remote sensing. However, Dr. Toro-Farmer was the first author on a paper published in 2016 in the prestigious *Remote Sensing* and also on an earlier paper, which reported on the results of his undergraduate thesis research. I note that Dr. Toro Farmer does have a profile on Google Scholar, with a good overall count of citations, beginning in 2003 and persisting until the present. In my judgment, he has shown solid scholarship.

In summary, Dr. Toro-Farmer "ticks all the boxes" in regard to a faculty member to be promoted to associate professor with tenure. He has a solid research record and publications indicating that he is a scholar, and will no doubt continue to attract external funding and publish the research results in national and international journals. It is my belief that he will continue to be very effective in both mentoring, teaching, and involving New College of Florida undergraduate students in his research. His extensive hands-on expertise with modern oceanographic instruments, and the fact that he is a master SCUBA diver, and has solid of oceanographic ship-board experience will serve him and his students very well. Although I cannot directly judge his teaching, noting the courses he has taught at New College of Florida, and the many students he is currently serving as thesis sponsor, I believe he is, or will be, extremely popular with his students and considered a great mentor/teacher. From my personal interactions with Gerado two decades ago, I remember him as a very positive and outgoing young man, enthusiastic about everything, and loving the coastal marine environment.

I have served in various positions from Professor to President at five different institutions in several countries, and Dr. Toro-Farmer would in my opinion have been promoted to tenure and awarded tenure at each institution. I thus see Dr. Toro-Farmer as a bright, very promising faculty member, and I strongly recommend to you, without hesitation, that he be promoted to associate professor with tenure.

Sincerely,

Björn Kjerfve, PhD <u>bkjerfve@mailbox.sc.edu</u>
Distinguished Professor Emeritus
School of the Earth, Ocean, and Environment
University of South Carolina

ORCID ID: 0000-0002-3867-3281

Actual Address: 18140 Osage Trail Drive College Station, TX 77845

Phone: 979-450-1832

### Dear Dr. Sandra Gilchrist,

In the Fall of 2022 members of the Division of Natural Sciences, the College's advisory committee on tenure and promotion, and members of the College's administration who are involved in the tenure and promotion decision, will consider the tenure and promotion of Dr. Gerardo Toro-Farmer from Assistant Professor of Coastal and Marine Science to Associate Professor of Coastal and Marine Science in the Division of Natural Sciences at New College of Florida. I have known Dr. Toro-Farmer for four years now and have interacted with him extensively in his capacity as an instructor and undergraduate thesis advisor. As one of Dr. Toro-Farmer's former students, it gives me great pleasure to provide you with my account of his work as a teacher and faculty sponsor.

In my final year at New College, I expected to continue working with Dr. Toro-Farmer as my thesis advisor and faculty sponsor. Before the academic school year had started, however, I was told that I would no longer be receiving financial aid to pay for school as a function of the Maximum Time Frame federal rule. The Maximum Time Frame rule prohibits students from going 150% over the normal graduation time frame. Even though it is called Maximum Time, it is really a measure of the number of CREDITS you have attempted, including transfer credits. As a transfer student at New College of Florida, in my final year I expected to take classes while also completing my undergraduate thesis. Because I transferred in with credits that did not count towards my area of concentration, at the time I found myself in a precarious situation: my financial aid would be cut and because I had no way of paying for it myself, I could no longer finish my degree. It was likely that I would have had to drop out if Dr. Toro-Farmer had not helped me contact and coordinate with Dr. Aron Edidin, Dean Emily Heffernan and other administrators on a solution to my problem. It was in great part due to his encouragement and persistence that I got my final thesis-only year fully paid for by the school.

Presently, I find myself enrolled in the University of California at Irvine as a fully funded Ph.D. student at the Logic and Philosophy of Science Program. I believe that I would not be in this position without the help of Dr. Toro-Farmer. Not just for practical reasons like recommendation letters necessary for acceptance into the program, but also because of the profound impact Dr. Toro-Farmer made in making me feel capable of dealing with and completing graduate-level work.

Maria Guardado

## Dear Dr. Sandra Gilchrist,

I am writing to recommend Dr. Gerardo Toro-Farmer for a tenure position at the New College of Florida and a promotion to Associate Professor of Coastal and Marine Science.

I took GIS I and II during my fourth year at New College and audited Dr. Toro-Farmer's Remote Sensing class as well. I started GIS I with no background knowledge on the subject and was able to learn concepts and complete projects with relative ease thanks to Dr. Toro-Farmer's in-depth teaching style. He explained everything thoroughly and was always eager to answer questions. He also made himself available for extra help during office hours or after class and worked with us whenever we had a valid need for an extension.

Since I took his classes in my fourth year, a time of stress due to my thesis and the appearance of COVID, I also needed help outside of the classroom. I had difficulties with my thesis sponsor and asked if he would feel comfortable taking her place. This would have been an immense amount of work for him, especially since we would have to come up with a new thesis project together. Regardless of the toll it would take on him, he comforted me and said he would become my sponsor if I talked to my current one and we could not come to an agreement. My sponsor and I were able to work out the issues I was having and I did not make the switch, but it was very reassuring to know Dr. Toro-Farmer would have stepped in if needed.

In regards to the problems I faced with the pandemic, I fell behind with my work due to family and life struggles. Dr. Toro-Farmer was incredibly understanding and reached out to ask about my drop in performance and attendance. He worked with me to raise my morale and finish the class with a passing grade.

Due to Dr. Toro-Farmer's impeccable work ethic and kind actions, I feel that he is more than deserving of a promotion and tenure status.

Sincerely, Jaci Martinez

Jaci R Martinez

56/05

SEP 3 0 2022

Isabella Chandler (207) 572-6173 isabella.chandler19@ncf.edu

### Dear Office of the Provost,

I am writing to you in regards to Professor Gerardo Toro-Farmer's tenure review. Over the two years I have had the chance to experience Professor Toro-Farmer's classes, research projects, and passion for marine biology. Professor Toro-Farmer is an extremely dedicated Professor who always puts his students first, and is willing to work with them throughout every problem.

Since meeting Professor Toro-Famer in my second year here at New College I have taken four classes with him. These were an introduction to oceanography, coral reef ecology, introduction to GIS and marine ecology. For each of these classes, he provided well-paced lectures that focused on the basics of the topics as well as more in-depth details. He also provided activities for a number of classes such as going out into the bay and working on water quality monitoring, identifying corals from specimens, preserving water samples, and guided map-making exercises. These really enhanced the courses as well as my understanding of the topics being presented. In this semester and the previous Fall semester, I worked with Professor Toro-Famer as the teaching assistant for introduction to GIS and introduction to oceanography. Through these positions, I worked with him to prepare labs and set up experiments. These opportunities have allowed me to get an even better understanding of the material covered in the class through listening to lectures with new information, as well as getting to view the activities in a new light by setting them up and taking them down. This gave me a more holistic view of the processes occurring especially when it came to setting up field sensors ang guides for GIS activities. Overall I have had positive classroom experiences with Professor Toro-Farmer and look forward to taking more classes with him.

Since January of 2021, I have been working in Toro-Farmer's lab on his water quality project. I joined this project during my Independent Study Project in my second year and have continued it as a tutorial ever since. I started working with him on monitoring Sarasota Bay's phytoplankton population. Doing this entailed collecting water samples, learning how to use a YSI-EXO or Sonde environmental sensor, learning how to preserve samples, learning how to make lugol, using a water filtration system, and using a FlowCam 8000. These are all skills I would never have gotten to work on in-depth in other classes. I was also able to apply these skills and knowledge to a poster I presented at The Ocean Sciences Meeting in 2022. Professor

Toro-Farmer encouraged me to apply to present my research on red tide contributors in Sarasota Bay and helped me through every step of the process. In completing this project he has helped me learn data processing through JMP as well as helped me a better understanding of how to make an effective poster. Getting to perform research with Professor Toro-Farmer has allowed me to get a unique and tailored education that focuses on my interests and has further helped me prepare for my Ph.D. and the workforce.

Due to these factors, I believe Professor Toro-Farmer is an excellent and unique teacher who encourages students to explore their interests and try new things. I look forward to working with him more in the future as I complete my final year at New College.

Best Regard,

Isabella Chandler

Isabella Chandler

Dear Office of Provost,

I am advocating that Dr. Gerardo Toro-Farmer receive a tenure position at NCF. I am a first year student here and I greatly appreciate all of the opportunities that have been offered to me by Dr. Toro-Farmer. As a first year, I was not expecting to be able to participate in research projects. However, he has made it possible for me to not only get hands-on research skills, but to also collect and analyze data both out in the field (Sarasota Bay) and in the lab that I will be entering into a conference. The opportunity to present my own research my first year of college would not have been possible without Dr. Toro-Farmer's support. Dr. Toro-Farmer is an excellent professor who has taught me many different research methods and skills. Thank you for your consideration.

Sincerely,

Sydney Haas

Sydney Haas

Dear PAC.

I, Noah Tyler, am writing this letter to serve as an additional source of information and evaluation of Professor Toro-Farmer's teaching, scholarship, and service.

In the fall of 2021, I took Professor Toro-Farmer's "Introduction to Oceanography" course. I found his teaching to be engaging and thorough during this course. He made his lectures interesting which allowed him to keep our attention throughout the entire class time. I learned a lot, not just about the facts of oceanography in his course, but also about real-world scientific techniques and professional oceanography work. I am currently taking Professor Toro-Farmer's "Marine Ecology" and "Introduction to GIS" courses this semester, fall of 2022. Once again, he offers insightful lectures on these topics, as well as going above and beyond to discuss real-world professional applications of these areas of knowledge. For all three courses, he has asked us to read published articles, as well as complete research projects on the topics. These assignments allow his students to gain a better understanding of what research in these areas is like, and to give us practice presenting information on these topics. Overall, I believe that Professor Toro-Farmer is a great teacher, and give him my approval in this area.

I can also speak on the topic of Professor Toro-Farmer's scholarship and service. 
Professor Toro-Farmer has acted as my academic advisor since the end of the spring 2022 semester, and he has been very helpful in planning my next steps here at New College. He has also allowed me to work closely with him since the spring 2022 semester on research he has been conducting in the Sarasota Bay in order for me to gain experiential knowledge on some research topics and techniques. During the summer of 2022, he and I went on Dr. Gilchrist's trip to Honduras for her "Coral Reef Issues" course. He was very helpful in showing me research skills and practices while we were there. Professor Toro-Farmer has also sponsored a research tutorial for me to do some research on corals. He has been very supportive and helpful in this area in terms of helping me plan the research, showing me resources that I can use, as well as helping me work with the Pritzker Marine Laboratory staff to get the laboratory set up for my research project. Overall, I believe that Professor Toro-Farmer has continually shown superb scholarship and service to the New College community.

I hope that this letter is a useful reference in the PAC assessment of Professor Toro-Farmer.

Tyler

Best.

Noah Tyler



Division of Social Sciences

5800 Bay Shore Drive (SSC-102) Sarasota, FL 34243-2109

Phone: (941) 487-4217 Fax: (941) 487-4475

October 14, 2022 To the Provost Advisory Committee,

Gerardo Toro-Farmer is a candidate for tenure and promotion to the rank of Associate Professor. This brief letter highlights two contributions that deserve visibility in the file.

In April 2020 the then Director of the Office of Research Programs & Services sent out an announcement from the National Science Foundation for a program titled Coastlines and People. I was intrigued and Professor Toro-Farmer joined a handful of faculty members interested in the possibility. Throughout the process, Gerardo has been a supportive colleague and an innovative thinker for addressing the social concerns for rising sea levels and coastal heritage for Sarasota/Manatee. The timeline for the NSF was too tight for summer 2020 so we regrouped to expand the scope of the multiscalar program. Gerardo's skill sets solidified inclusive participation for the five-faculty coalition that engaged community organizations (including Marie Selby Botanical Gardens and De Soto National Memorial) and facilitating productive discussions for our research and community needs. The group organized a January 2021 ISP, and Professor Toro-Farmer accelerated connecting the disparate contributions from microbiology, marine invertebrates, botany, and archaeology through a StoryMap, with the students relying heavily on Professor Toro-Farmer's knowledge. While NSF did not continue the Coastlines and People solicitation, Gerardo was a key contributor to the collaboratively written grant proposal to Sea Grant submitted in August 2022. Throughout this process, Professor Toro-Farmer has been supportive of a wide-range of undergraduates, offering insightful for ways to include community organizations and supportive of an interdisciplinary approach to the challenges to coastal heritage.

Beyond that program, Professor Toro-Farmer is providing significant support for the New College academic program through the GIS certification. For archaeology, GIS is a crucial tool and approach, and the training and support provided by Professor Toro-Farmer is essential for New College undergraduates wishing to pursue employment or graduate study in archaeology/Anthropology. Professor Toro-Farmer's enthusiasm for supporting students outside his discipline and division is admirable.

I trust these observations are useful for the committee for consideration in the promotion and tenure process.

Sincerely,

Uzi Baram

Uzi Baram Professor of Anthropology Director of the New College Public Archaeology Lab Baram@ncf.edu



Division of Natural Sciences

Oct. 27, 2022

To: PAC

From: Dr. Rebecca Black

Re: letter of support for Professor Gerardo Toro-Farmer's Tenure & Promotion

## Dear colleagues:

I am writing in strong support of Professor Gerardo Toro-Farmer's tenure and promotion. I have had the pleasure of being Gerardo's colleague since Fall 2018. In this letter, I will share some observations on Dr. Gerardo's teaching, research, and service.

Teaching. Gerardo built New College's GIS program from scratch when arriving in Fall 2018, and these courses have been instrumental to training Marine Biology students. As GIS is his specialty, he has offered Introduction to GIS every Fall, with his second Fall course rotating between Introduction to Oceanography and Marine Ecology. In 2020 and 2021 Springs, he has also offered a GIS-II course. I have enjoyed running into his students all over campus as they complete GIS activities in the 'field.' This is such good experience for our students to be collecting data in person!

Research. While our research areas do not overlap, we have shared several biology students (who have taken my organic chemistry class). We've also talked over the years about various aspects of his research, such as the process of obtaining permits to purchase and conduct his GIS research involving aerial drones. The various areas of his research are clearly of interest to many marine biology students, as he has attracted many ISP and summer research students to his projects. He also has obtained a number of grants to support both his research costs and to pay student researchers or interns, which is strong evidence that he will continue to fund his work in the future.

Service. Gerardo has served as a committee member on the Natural Sciences Budget committee for one year (and this year) and the International Studies Committee for two years (and this year). I have appreciated his work on the latter committee, as there is no replacement for international experience and I hope more of our students will take advantage of these opportunities.

On a personal note, Gerardo has been an excellent colleague. I always enjoy running into him in the hallway to chat about research, advising, etc. Our students are also lucky to have a GIS expert to teach them this very useful skillset and be able to engage in such a wide-range of research opportunities. I strongly support his tenure and promotion case and I look forward to working with him for many more years to come.

Sincerely,

Rolcia Ellack

Rebecca Black, Assistant Professor of Organic Chemistry



October 27, 2022

## Dear Members of the PAC,

I am writing in support of my colleague, Dr. Gerardo Toro-Farmer, and his bid for promotion and tenure. As I wrote in a previous letter, Gerardo is an integral part of the Biology, Environmental Studies, and Marine Biology programs. Gerardo's course offerings serve the above areas. He offers multiple ecology courses, which are clearly critical for Biology, Marine Biology and Environmental Studies, and his GIS courses serve students from these as well as other areas on campus.

Dr. Toro-Farmer rose to the occasion when he was rather abruptly tasked with coordinating the GIS certification program, and he still serves in this time-consuming position. He has and continues to ably serve on the Natural Sciences Budget Committee and the International Studies Committee and was a reviewer on the Fulbright Faculty Review committee. He serves his field in important ways as well. He is a member of the Technical Advisory Committee for the Sarasota Bay Estuary Program, a member of the executive committee for the Aquatic Studies Group for the SBG Missions portion of NASA, and was a reviewer for submissions to the Columbian Seminar of Ocean Sciences and Technologies from 2019-22. These appointments all speak to the high regard in which he is held by his colleagues, locally, nationally, and internationally. The amount and variety of skills, training and certifications that he has had to obtain and keep current in order to conduct his research is truly impressive.

Gerardo's research is well out of my range of expertise, but I do note that, since his arrival at NCF, he has published an article and a book chapter on the important issue of hydrocarbon pollution of fishes in the Gulf of Mexico. This work is, by its very nature, interdisciplinary, so it is unsurprising that these publications are multi-authored. He also has three additional manuscripts in preparation with student coauthors, although I cannot speak to exactly where these are in the preparation process. He has had two students present their work via a joint poster at the 2022 Ocean Science Meeting. Gerardo has garnered support from some local funding agencies since joining our faculty, and was supported by NASA and NOAA prior. A recent award by the Cross College Alliance is sizeable (around 30K) and was granted in support of his research and summer internship program for investigating water quality around Sarasota Bay seagrass beds. Other funded research projects have included indexing tree groups in the area of the Myakka river and seagrass bed health and mapping, which could have positive ramifications for the health of manatees and other organisms that rely on these beds. I frequently see Gerardo working with teams of students in his rather small space in our building, and am very pleased that they have the opportunity to work with him on such meaningful projects. The fact that he is working on publishing with students is excellent; this will benefit them as they work toward furthering their education and careers.

In conclusion, Dr. Toro-Farmer is an asset to our discipline, the college and his field. I value him as a colleague and have been pleased to write on his behalf.

Sincerely,

Amy Clore, Ph.D. Professor of Biology

clore@ncf.edu



Division of Natural Sciences

27 October 2022

PAC 2 c/o Office of the Provost, COH 214 provost@ncf.edu.

re: Tenure and promotion of Gerardo Toro-Farmer

To whom it may concern:

I am writing to you to express my support for Gerardo Toro-Farmer, as he undergoes the tenure and promotion review process. My letter is based on limited interactions with Gerardo; yet they have been so positive, that I feel compelled to write a letter of support.

Gerardo is a great colleague. He shares in biology's workload in teaching, scholarly work, and service. He continually demonstrates willingness to help biology and the Division, whether it is to help with planning, opening additional space in his courses and labs, or other needs. He is pleasant and earnest.

Gerardo's expertise in GIS is a great asset not only to biology+ but to the college. His GIS courses are in high demand; I've had several students excited about his class, hoping to be able to get into it. His GIS knowledge and experience has demand; there is potential for collaborations throughout the college, including in public health related courses. There are limits to Gerardo's time, and I am not suggesting these collaborations should come to fruition. My point is that his expertise is important, and the desire for his skills, his courses, and his work gives testimony to his being valued and appreciated at NCF.

I strongly support Gerardo's application for tenure and promotion.

Cordially

Kristopher Fennie, PhD MPH MSc

Associate Professor



5800 Bay Shore Road Sarasota, FL 34243-2109 Phone: (941) 487-4328 Fax: (941) 487-4475

October 28, 2022

Provost's Advisory Council New College of Florida Sarasota, FL 34234

RE: Professor Toro-Farmer, tenure and promotion candidate

Dear members of the PAC:

I am writing in reference to Professor Gerardo Toro-Farmer. Although Professor Toro-Farmer has many fortes (including his lovely collegiality), I am writing today to highlight a significant strength he brought to the college that is dear to my heart: his powerful contribution in making the power of GIS approaches and analyses to understand the world more salient and accessible at New College. In my experience, Dr Toro-Farmer is a very dedicated teacher and advisor on this front. He works very hard on behalf of his students, doing extra ISPs and helping thesis students who are being advised by others with their GIS work. His use of GIS techniques for his own research helps the whole campus maintain the tools that many need. The addition of the GIS certificate we now have at NCF wouldn't have happened with him, and it's important to student success in college and beyond college. Again, I know Gerardo offers many strengths to the college, but I am especially grateful for all he has done on the GIS front. He's made a big difference.

Thanks for all your work.

Yours,

Heidi E. Harley

Director of Environmental Studies

Peg Scripps Buzzelli Endowed Chair in Psychology



Division of Social Sciences

October 27, 2022

Dear Members of the Provost's Advisory Committee:

I am writing in support of Professor Toro-Farmer as he stands for tenure and promotion.

Although Professor Toro-Farmer's research and teaching are in fields beyond my expertise and I have little direct interaction with him, I wanted to take this opportunity to highlight the important collaboration and support he offered the only other Geographer we have had at the College when she was here in the Division of Social Sciences. Together they supported students who created a special AOC in Geography and they built up our regular GIS instruction.

Since Ilaria Giglioli left, Gerardo has carried GIS instruction in service to the whole College. While his home is in Natural Sciences, several Social Sciences students have taken his GIS courses and gone to him for help with their projects. The spatial angle is central to many questions in the Social Sciences, and we hope to be able to hire in that empty International Migration/Geography line when enrollment increases. For now, though, Gerardo shoulders the burden of introducing our students to GIS analysis and getting them up to the level needed for both certification and advanced research. We are most appreciative of his commitment to this work.

In sum, Gerardo's contributions to the curriculum and student skill development at the College in fields beyond his immediate specialization are highly valued in our Division, and I support awarding him tenure and promotion.

Sincerely yours,

Barbara Hicks

Professor of Political Science

Barbara & Hicks

Chair, Division of Social Sciences



Division of Natural Sciences

To: Provost Advisory Committee, c/o Office of the Provost:

Dear Colleagues,

I write in support of Gerardo Toro-Farmer on the occasion of his review for tenure and promotion. Having worked alongside Gerardo for the last several years, I remain impressed with his dedication to student-driven research and support.

Gerardo's teaching covers areas critical to our programs in Marine Biology, Biology, GIS, and other programs. His courses in Oceanography and Marine Ecology, GIS systems, and others have been a consistent draw for our increasing number of marine-focused students. He complements these with more focused tutorials to support student thesis projects, advance goals of the New College Coastal and Marine Observatory, and promote student contributions to research. He has also worked with Professor Sandra Gilchrist in the summer Coral Reef Issues international study program in Honduras.

His integration of research and teaching is equally significant, as Gerardo specializes in areas of global relevance but special relevance to Florida and the bayfront community. Downstream effects of water quality on seagrass beds, phytoplankton growth, red tide events, and fishery production are vitally important areas, and ones Professor Toro-Farmer is uniquely positioned to better understand. In recent years his projects have studied redistribution of hydrocarbons after oil spills and expanded water quality monitoring and other remote sensing efforts in Sarasota Bay.

Gerardo has also been broadly active in service, including service to the college in standing committees and as the keystone for GIS support on campus. He has served several years as an advisor for International and Area Studies, and on the Natural Sciences Budget Committee. He also helps to advance wider efforts in the field, including consistent contributions to workshops in remote sensing and spatial analysis, prior work with NASA's GEO-CAPE and HyspIRI missions, continuing into his current work on the Executive Committee of the Surface Biology and Geology group.

In short, Gerardo is a strong candidate for tenure and promotion, and a vital support for New College's recent and continued growth in marine sciences.

Typone Refra

Tyrone Ryba

Associate Professor of Bioinformatics

New College of Florida



Division of Natural Sciences

October 25, 2022

To: the PAC

Re: Support letter for Dr. Toro-Farmer's review for tenure and promotion

I write in support of Dr. Toro-Farmer for the award of tenure and promotion. Dr. Toro-Farmer is an impressive educator, researcher, and colleague.

He offers courses that are essential to the Marine Biology AOC and that attract students from Biology and Environmental Studies as well. His Geographic Information Systems (GIS) course offerings are vital courses for the GIS certificate, equip students with highly desirable/marketable skills, and support student projects. Beyond his courses, he is generous in supporting his colleague's courses. For example, he devoted significant time to developing and implementing a chlorophyll extraction exercise for students in my Marine Ecology Lab. This allowed students to deepen their analysis of local phytoplankton and develop valuable laboratory skills.

He regularly supports tutorials in areas of student interest and has developed a reoccurring group tutorial called New College Coastal and Marine Observatory. This tutorial provides students with valuable field research experience and supports individual student projects. The work contributes to monthly monitoring of the local environment, phytoplankton communities, and seagrass. This research is not only valuable from a teaching perspective, but is crucial to understanding how Sarasota Bay is changing, developing predictions for environmental change, and potentially mitigating negative possibilities.

As a thesis sponsor, Dr. Toro-Farmer supports and encourages students to create meaningful projects that are valuable to a wider community. For example, his thesis student Bella Shuler used high-resolution satellite imagery and GIS tools to map boat propellor scars in seagrass beds of Sarasota Bay. She went further to ground truth the map with hands-on measurements of boat scar placement and length in the field. Ground-truthing is a too-often overlooked step in creating maps of environmental features. This is a crucial step for ensuring accuracy, quality, and understanding how a map can be used. Because of Dr. Toro-Farmer's guidance her research is of publication quality and in the process of being written up for submission to a scientific journal.

I have seen firsthand how valuable his support of student thesis projects can be. He regularly met with a thesis student of mine, Marena Long, to consult on the GIS aspects of her project. As a result, she conducted a high-quality analysis of the distribution of Bigg's killer whales in relation to pinniped haul-out sites. She recently presented this work at the 24th Biennial Conference on the Biology of Marine Mammals in August 2022.

I enthusiastically recommend Dr. Toro-Farmer for promotion and tenure!

Sincerely,

Athena Rycyk, PhD New College of Florida

athung Ryeyl

Assistant Professor of Biology & Marine Science



Necmettin Yildirim
Professor of Mathematics and Soo Bong
Chae Chair of Applied Mathematics
Division of Natural Sciences
New College of Florida
5800 Bay Shore Road, Sarasota, FL 34243

Phone: (941) 487 4214 Email: nyildirim@ncf.edu

October 27th, 2022

To the Provost Advisory Committee:

I am happy to provide this letter in support of Professor Gerardo Toro-Farmer on the occasion of his tenure and promotion. I truly believe Professor Gerardo is an excellent teacher, dedicated scientist, and good colleague.

Professor Gerardo is a marine scientist who utilities interdisciplinary approaches to study coastal and environmental problems. He offers traditional and newly created courses for the Biology and Marine Biology programs. During his career at New College, Professor Gerardo established himself as a strong teacher and dedicated scientist. His course offerings attack good number of students, students love his GIS course. Professor Gerardo often integrates students in his research projects, which is very important for a college like New College whose institutional mission highlights promoting undergraduate research. During his research leave, Professor Gerardo was generous enough to continue supervising his thesis and research students. Professor Gerardo served in a number of college-wide and ad-hoc committees at various capacities, which involves International Studies and Fulbright Faculty Review Committees. He also took an active role in redesigning and setting up the computer lab in HNS108.

In summary, I value Professor Gerardo as a colleague, and strongly support his tenure and promotion. He has been making valuable contribution to New College community.

Sincerely yours,

Professor of Mathematics

Necmettin Vildirim

# PROVOST'S ADVISORY COMMITTEE EVALUATION:

#### Gerardo Toro-Farmer

#### TEACHING

Professor Toro-Farmer taught over six semesters from Fall 2018 to Fall 2021. He was on research leave in Spring 2022. Overall, Professor Toro-Farmer's teaching record is very strong and his workload indicates a high degree of commitment and responsibilities. Students and colleagues praise his courses, especially his introductory and advanced GIS classes that are not only crucial for his immediate field of Coastal and Marine Science, but also for Biology, Marine Biology, Environmental Studies, and the GIS certificate credential that is offered by the college. He also offers a regular LAC course, Introduction to Oceanography.

Professor Toro-Farmer's course enrollments amount to a healthy average of twelve students each. He has sponsored an impressive number of ISPs and tutorials, and a total of twelve theses, which demonstrate high student interest. Student evaluations describe him as passionate, fair, helpful, and knowledgeable; student letters praise his kindness and express gratitude for his support in developing skills necessary for graduate level work.

#### RESEARCH

Professor Toro-Farmer is an oceanographer whose research program focuses on monitoring coastal ecosystems to understand how natural and human impacts shape coastal and marine habitats and ecosystems. Much of his research is based in environments near or at New College, such as the Sarasota Bay and Gulf of Mexico. At the time of his hire Professor Toro-Farmer had established a strong track record of grant funding (totaling \$258,000), publications (nearly twenty), and presentations (more than twenty).

Since his arrival at New College in 2018, Professor Toro-Farmer has published a book chapter and an article in *Scientific Reports*. He was also an author on a presentation at the American Fisheries Society, and an author (with two New College student co-authors) on a poster presented in 2022 at the Ocean Sciences virtual conference. Currently Professor Toro-Farmer has three manuscripts drafted, all authored with New College students, which have not yet been submitted. External reviewers noted that observationally-based research programs take time to build and to collect data and thus it typically requires more time for a dataset to reach publication, especially in the context of the significant teaching and service at a small liberal arts college and the ongoing pandemic.

Professor Toro-Farmer has combined teaching and research through regular sponsorship of ISPs and Tutorials on "The New College Marine Observatory". He has garnered ~\$43,000 in grants over the past three years from the Cross-College Alliance and the Conservation Foundation of the Gulf Coast to support his research program, including paid internships for students. In addition, he was part of a team that successfully earned a grant to establish exchange programs with universities in Morocco and Taiwan. He has actively sought funding for research and educationally-focused grants, submitting seven individual or co-authored grants to local and national organizations (including NOAA) over the past two years. Professor Toro-Farmer has also kept current in his scholarly professional development through participation in several workshops and research summits related to coastal monitoring and drone technologies, among others.

Professor Toro-Farmer's research program is well underway at New College. He has been dedicated to building a program that engages our students in authentic research, and he actively pursues funding for his research.

### SERVICE

Professor Toro-Farmer's main service has been his work to maintain the program in GIS, which has significant student demand and serves a wide variety of disciplines across the divisions. He has also been active on the International Studies Committee since 2019. Professor Toro-Farmer has served as the biology representative to his divisional budget committee, and was a member of the search committee for the director of ORPS.

A highlight of Professor Toro-Farmer's professional service is his role as a member of the Aquatic Studies Group, Surface Biology and Geology satellite missions of NASA. He also serves as a reviewer for multiple scientific journals in his areas of expertise and has served as a reviewer and panelist for several funding programs for NASA. On a more local level, Professor Toro-Farmer has recently been appointed as a member of the Technical Advisory Committee serving the Sarasota Bay Estuary Program.

Keeping the essential GIS program afloat certainly takes a lot of Professor Toro-Farmer's energy, and his work on the ISC has benefited the college. His active service in local and national organizations related to his scholarly expertise supports the field and creates important connections for the college.

## Research Narrative

## Gerardo Toro-Farmer October 2022

Research is an important part of our activities at New College. During this time, I have established a research program that is heavily integrated with our academic activities, from tutorials to Thesis opportunities, as well as Summer and ISP activities.

My main research line deals with monitoring coastal and marine systems using remote sensing analysis, geographic information systems (GIS), and field observations. My research focuses on understanding how marine, near-shore, and coastal environments might change over time due to natural and human processes. I am also particularly interested in understanding how changes in the oceanic light environment affect the spatial-temporal variability of productivity, abundance, and diversity of phytoplankton groups, corals, and seagrasses. I use optical properties, from in-situ instrumentation and remote sensors, as fundamental tools to understand environmentally mediated biological processes at different spatial and temporal scales, including benthic and pelagic productivity, diversity, spatial distribution, and habitat connectivity.

## Ongoing Research Projects:

## - New College Coastal and Marine Observatory

This project started in 2019 and funded by the New College of Florida and the Cross College Alliance deals with creating and maintaining a long-term biogeochemical, biodiversity, and optical observatory system focused on the seagrass beds of Sarasota Bay (FL). This project relies on observations from underwater sensors moored nearby seagrass beds recording basic water quality measurements, as well as on high-resolution aerial images collected by the nearby Counties and satellite images from NASA and private providers.

This time-series monitoring program is helping to establish: 1) a baseline of biogeochemical observations under varying environmental conditions, 2) optical models to deconvolve relevant biogeochemical processes and their impacts and feedbacks on habitats and biodiversity, and 3) optimum ways to transfer the project results to coastal resource managers in forms that will be useful to them for future coastal applications. I am covering three fundamental topics to assess the health and status of coastal organisms and processes: 1) water quality monitoring (biogeochemical variables including water turbidity, pH, dissolved oxygen, dissolved organic matter, nutrients), 2) phytoplankton community dynamics (identification of communities inhabiting seagrass areas), and 3) spatial distribution, abundance, and health of seagrasses and other substrates.

Additionally, in Spring (2022) I started a monthly survey across the Bay (fourteen stations from New College to Longboat Key) of water quality, phytoplankton species, and water-leaving radiance. These measurements are relevant to my studies of seagrass distribution, phytoplankton functional groups, and optical properties that can be captured by remote sensors (satellites,

airplanes, and drones). I intend to use these measurements as preliminary results for a proposal to NASA aimed at studying coastal areas with upcoming hyperspectral satellite sensors.

Manuscripts presenting results from this project are in preparation and expected to be submitted for review soon. All of these papers are in collaboration with New College students, and some drafts are attached and include:

- Spatial Analysis of Seagrass Bed Propeller Scarring in Sarasota County.
- A Comparative Assessment of Mapping Validation Techniques for Evaluating Seagrass
  Abundance.
- Phytoplankton groups beyond Karenia spp.: who is contributing to Sarasota Bay's red tide events? (Poster presented in the 2022 Ocean Sciences meeting, and manuscript in progress).

## - Hyperspectral measurements of bottom light reflectance in coral reefs of Honduras

This study focuses on gaining a better understanding of the predominant coral reef benthic organisms and water column optical properties in Cayos Cochinos, a protected area in Honduras that should represent one of the last pristine coral reefs in the Caribbean not strongly affected by human activities. Specifically, the main objectives of this ongoing study are to 1) create a baseline of optical measurement for key species of corals and the water column around different locations, depths, and general environmental conditions of local reefs, 2) start developing optical models to deconvolve relevant biogeochemical processes related to these coral reef habitats, and 3) evaluate the use of commercial, high-resolution satellite sensors, to monitor the status of these remote reef environments (substrates coverage, changes in turbidity, impacts of increasing human perturbations, etc). A preliminary visit to the site was conducted in 2019 right before travel was limited by the COVID pandemic. A second trip was finished this Summer (2022), where the feasibility of continuing this research was re-assessed. Fortunately, this project will continue thanks to the support of the Honduras Government and local communities. Observations from these two limited surveys are being analyzed, and a manuscript describing the area, species present, and optical observations will be submitted this year (manuscript in progress).

# Use of remote sensing to study the distribution and overall health index of vegetation communities in the Myakka River area

I was funded by the Conservation Foundation of the Gulf Coast to generate a baseline dataset of the distribution and overall health index of vegetation communities in a key portion of the Myakka River watershed area (FL). High-resolution geolocated aerial data was collected with a drone system equipped with a color (RGB) camera and a multi-band sensor. Products derived using the multi-band sensor included a 4 cm resolution "true-color" image for the entire study site, as well as distribution maps for the targeted vegetation groups and substrates. Additionally, the Normalized Difference Vegetation Index (NDVI) was derived from the multi-band data to

better assess the health status of the vegetation in the area during the study period, as well as to be used as a baseline to inform future studies about vegetation status trends.

Currently, it is expected that the study will continue in order to cover different seasons of the year. A manuscript or technical communication is expected to be produced in collaboration with the Conservation Foundation of the Gulf Coast.

## - Distribution of hydrocarbons in the Gulf of Mexico using GIS analysis

During the last years, I have collaborated with scientists from the University of South Florida to assess the distribution and potential impacts of hydrocarbon pollution in the Gulf of Mexico. Fish samples from different regions of the Gulf of Mexico were examined to measure the concentration of key hydrocarbons that can be indicators of oil spills. Using GIS analysis, I was able to generate distribution model maps for the concentration of these hydrocarbons around the Gulf, showing higher concentrations near areas such as the Mississippi River mouth, some big ports, and the area where the Deepwater Horizon oil spill occurred. A peer-reviewed publication and a book chapter were generated from this collaboration (https://doi.org/10.1038/s41598-020-62944-6, https://doi.org/10.1007/978-3-030-12963-7\_15).

# - An Exploration of GIS Interpolation Methods for Determining Trends in Environmental Factors Along the Elbow ridge, West Florida Shelf

The main goal of this project was to analyze spatio-temporal trends of salinity, temperature, chlorophyll, and optical properties (backscattering, beam-c attenuation) along varying depths within the study area using different geostatistical interpolation methods. Briefly, results indicated that the Spline with barriers method provides the most visually comprehensive maps and multi-year visual differences, while the Empirical Bayesian kriging (EBK-3D) method provides the most accurate statistical evaluation of its methods and resulting maps. A manuscript is currently being prepared for submission.

## Submitted Research Proposals and LOIs:

During these years at New Colege, I have written individual and collaborative grant proposals with other faculty members. I have also sent several letters of intent, and applied for funds to support summer internships:

- IDEAS Grants To Build Study Abroad Capacity 2022: I collaborated on putting together
  this proposal titled "New College, New World: Creating Our First Two Exchange Programs
  in Morocco and Taiwan." The proposal was submitted two years in a row and funded in the
  second round.
- Sea Grant NOAA Translating Coastal Research into Application 2022: In collaboration
  with other faculty members, we put together a letter of intent for this call. A full proposal
  was sent later during the summer of 2022.

- Environmental Discovery Awards Funded Summer Internships Cross College Alliance 2019-22: I have been awarded significant funds since 2019 to work with summer interns studying seagrasses and water quality around seagrass beds in Sarasota Bay.
- SeaGrant Applied Science Projects 2022: I put together a letter of intent (LOI) for the 2022-2024 Seagrant Applied Science Projects in collaboration with other NC faculty (Sandra Gilchrist and Erika Diaz-Almeyda). The project is related to water quality and the distribution of biological communities in Sarasota Bay and adjacent coastal areas. Unfortunately, we were not selected to submit a full proposal this round. I am identifying other potential funding opportunities for this idea.
- Baseline Study of the Distribution and Health Indices of Key Tree Groups in the Myakka River Area Near the Flatford Swamp 2021: I was also funded by the Conservation Foundation of the Gulf Coast to generate vegetation distribution and health status maps for a new protected area north of Myakka City.
- Hughes Medical Institute (HHMI) Inclusive Excellence (IE3) competition of 2019: I had
  the opportunity to participate when putting together this proposal for the 2019 competition to
  improve the introductory STEM educational experience at New College. This proposal was
  led by Professor Steven Shipman.
- NOAA's MERHAB program call 2018: In collaboration with another NC faculty member, I submitted a letter of intent to this call, but unfortunately, the proposal was not supported. Nevertheless, since the idea was related to the call and highly relevant for red tide studies in the Sarasota Area, I am planning on revamping this proposal to continue pursuing upcoming funding opportunities.

## Teaching Narrative

## Gerardo Toro-Farmer October 2022

During my time with New College, I have had the opportunity to teach courses related to the Marine Biology AOC and most (currently all) of the courses needed by students pursuing the Geographic Information Systems (GIS) Certificate. Most of these courses are also interdisciplinary and eligible for the Environmental Studies program and the International Studies AOC. My courses are consistently offered with a pretty set rotation time to warranty their availability to students and support a smoother continuation of all these programs. Additionally, I have a running tutorial called New College Coastal and Marine Observatory, where students participate in current research initiatives learning techniques to monitor and better understand coastal systems. Students must also design their own research questions and execute a research project.

My classes have been well received by students, with excellent enrollment, attendance, and great participation. Several students have continuously taken most or all of my classes, sometimes combining the GIS with the marine biology courses. I have received good personal feedback from students about classes and some constructive comments. Below are the general descriptions of the courses I have offered at New College.

## Marine Biology Courses:

- Introduction to Oceanography: This is one of the required courses for Marine Biology AOC students, thus it has been offered every academic year since 2018-19 (except for 2022 due to my research leave and the offering of Marine Ecology). The course was reworked and adapted from a LAC course to a CYC-eligible class. This course covers interdisciplinary topics related to the marine environment, global dynamics, and human interactions. The scope of the course is of great interest to marine biology students and students from other AOCs. Enrollment has been consistently excellent (more than 14 students per semester), and the evaluations for the course have been generally positive, highlighting the content and the delivery of the class.
- Coral Reef Ecology: This is a very popular marine biology course that covers the basics of coral reef biology and ecology. This course does not currently offer a laboratory section, but it does include (limited) field and lab activities. The course is also an excellent introduction to the summer class Coral Reef Issues taught by Professor Sandra Gilchrist. I am in the process of (re)designing my course so it better links both courses for students pursuing both.
- Marine Ecology: This course offers more advanced topics related to ecological processes in marine and coastal environments. The class was designed to provide students with the most relevant content in the field, as well as to work in conjunction with the "Marine Ecology Laboratory" taught by Professor Athena Rycyk. Students have well received Marine Ecology, therefore we are planning on offering these two courses again every other year.

#### GIS Courses:

- Introduction to GIS: This course is the foundation for our GIS program and has been offered every academic year since 2018-19. Students from all Divisions and different AOCs are continuously taking this course to pursue our GIS Certificate and gain additional skills to analyze geospatial datasets or gain more experience for future academic and job opportunities. Enrollment has consistently been good (about 12 students per semester), maximizing the capacity of our Natural Sciences computer room. This enrollment limit is reasonable since it facilitates laboratory and field activities.
- GIS-II: This more advanced GIS course is offered every Spring and provides new skills and tools to students for geospatial analysis. It also adds the newest and more complex technologies and visualization tools, including web mapping and data sharing. Enrollment has also been excellent, with many students analyzing their thesis data and also looking to build an online portfolio for jobs and graduate school applications.
- GIS and Remote Sensing applications to Coastal and Marine Studies: This elective course has been offered twice in the past to a selected group of students interested in learning about the methods and technologies to analyze remotely sensed data. The skills acquired by students in this course are graduate-level equivalent, providing them with a significant advantage when applying for more advanced jobs or graduate schools. Unfortunately, due to the shortage of other GIS faculty members in the last couple of years, I have been concentrating on covering the other two GIS courses and have yet to be able to offer this elective class again.

#### Thesis students:

During this time at New College, I have had the opportunity to graduate five students as their thesis sponsor, and closely work with eighteen other students as part of their thesis committees. I am currently working with two thesis students and have around three more second and third-year students starting to develop their thesis proposals with me. Most of my graduated students are either attending graduate schools or pursuing related professional activities.

#### DIVISION CHAIR EVALUATION:

Dr. Toro-Farmer has been a strong colleague in the Natural Sciences.

Teaching: Dr. Toro-Farmer has taught a variety of classes, often exceeding the average class size for the college. He is currently the only person teaching the core GIS classes leading to the GIS certificate (most recently, 4 students received this certificate). He leads a group tutorial on marine observatory that engages students each semester in field research and analysis of local habitats. This tutorial not only builds teamwork and small group skills, but also exposes students to significant research opportunities. He has consistently had multiple thesis students work with him. Students note his accessibility and fairness. His evaluations of students give clear guidance on areas for improvement.

Research: Dr. Toro-Farmer has been sharing lab space with others because his area for research is cramped. This is especially seen in the summer where he has to rotate students into the lab for lab work. At best, the lab can safely have 4 students working. He often has more than this under his guidance. He has been forging collaborations with NASA to study coastal areas with hyperspectral satellite sensors. As a member of the Aquatic Studies Group for the "Surface Biology and Geology" NASA mission, Dr. Toro-Farmer is creating a network for future collaborations. Most recently, he has completed The Conservation Foundation of the Gulf Coast grant to generate vegetation distribution and health status maps for a new protected area north of Myakka City.

Community Service: Dr. Toro-Farmer has been an active participant in Division meetings. In the broader community, he has been a member of the international studies committee. In this capacity, he created a story board website to showcase international studies. A more subtle contribution is mentoring students of color whether he is the adviser or not. Students look to him for guidance in navigating the New College System and beyond as evidenced by thenumber of recommendation letters that he writes.

Dr. Toro-Farmer has continued to grow as a colleague over the last 4 years.

# PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS EVALUATION:

Submitted 2/19/23

Professor Gerardo Toro-Farmer joined the New College faculty as Assistant Professor of Coastal and Marine Science in August 2018, after earning his Ph.D. from the University of Southern California in 2011, followed by a 7-year postdoctoral research associate position at the University of South Florida. In his 4+ years at New College, Professor Toro-Farmer has demonstrated his skill in engaging students in coursework and research highly relevant to the College's coastal environment.

Professor Toro-Farmer's courses in marine ecology and oceanography - Coral Reef Ecology, Marine Ecology, and Introduction to Oceanography - are essential for the Marine Biology area of concentration, and also attract biology and environmental studies students. In addition, Professor Toro-Farmer offers a set of courses in Geographic Information Systems (GIS): Introduction to GIS, GIS II, and GIS and Remote Sensing. These courses are valuable to students in a wide variety of concentrations, as collecting, visualizing and analyzing geospatial data are important tools in many areas of inquiry, and in many careers. As one external reviewer of his file wrote, "The ability to work with GIS and remote sensing are skills that readily help students get employment upon graduation." In recognition of the latter, Professor Toro-Farmer proposed, and was approved, to offer a Certificate in GIS to students who complete a sequence of appropriate courses.

In addition to courses, Professor Toro-Farmer offers a variety of tutorials and ISPs. His popular Coastal and Marine Observatory group ISPs and tutorials are regularly offered to students at all levels. The students gain important field research experience to support their individual projects, and collect valuable data to monitor the health of Sarasota Bay. Student evaluations of Professor Toro-Farmer's teaching describe him as passionate, fair, and knowledgeable. One student wrote in their letter in support of Professor Toro-Farmer's tenure, "Professor Toro-Farmer is an extremely dedicated professor who always puts his students first, and is willing to work with them throughout every problem." In his first 4 years he successfully mentored 5 thesis students, and two more thesis students are expected to graduate this spring.

Professor Toro-Farmer is an oceanographer who uses optical instrumentation to monitor the biogeography and ecology of reef and seagrass communities in order to study the effects of natural and human impacts such as oil spills. In his 7-year postdoc at USF in a well-funded research group (Professor Toro-Farmer was co-PI on 5 significant grants), he accumulated 10 peer-reviewed publications. These were added to the 9 he already had from his undergraduate and graduate work. His rate of publication since arriving at New College has slowed a bit because he is conducting research in new locations. According to external reviewers, observationally-based research like that conducted by Professor Toro-Farmer requires time to collect a sufficiently large data-set for publication. Since his arrival at New College, Professor Toro-Farmer has published a book chapter and an article in the peer-reviewed Scientific Reports, which has an impact factor in the top 5% of journals. In addition, he has two manuscripts nearing completion. He gave one oral presentation at a conference, and he presented a poster with two student co-authors at another conference. Professor Toro-Farmer has also raised nearly \$44,000 in funding from the Cross College Alliance and the Conservation Foundation of the Gulf Coast to support his research at New College, including paid internships for students. External reviews of Professor Toro-Farmer's scholarship are uniformly positive. One reviewer noted that his "expertise in coastal marine ecology, aquatic optics, GIS, and remote sensing seem particularly

relevant to the educational and scholarly mission of New College." Another reviewer (from Bowdoin College, a liberal arts and sciences college) wrote that "the research programs [Professor Toro-Farmer] is developing will provide rich opportunities for undergraduate research."

Professor Toro-Farmer is very active in service to the College and to the scientific community. He has served for three years on the Natural Sciences Budget Committee, and for three years on the International Studies Committee. For the latter committee, he created an interactive story map of courses offered in International Studies, which he shared with the college community. In 2018 he served on our internal Fulbright Faculty Review Committee. In the more extended community, he serves on review panels for NASA proposals, and he is on the Executive Committee of the Aquatic Studies Group at NASA. He was recently named a member of the Technical Advisory Committee for the Sarasota Bay Estuary Program, and he serves as a peer-reviewer for a variety of scientific journals. Finally, because Professor Toro-Farmer is often working with undergraduates at the Pritzker Marine Biology Research Center, he has offered quite a few tours of the facility, including discussions of his own research, for visitors to campus. These interactions with visitors that showcase the facility and possibilities for research are an appreciated service to the College.

Professor Toro-Farmer excels in teaching and service, and he is actively building a program of exciting research with ample opportunities for undergraduate student involvement. Further, he makes important contributions to college-wide priorities. His engaged work in teaching and mentoring students, his kindness to students and colleagues, and his work on behalf of ensuring a GIS program at New College, contribute to improvements in retention, four-year graduation rates, and development of transferable skills for New College students' future success in jobs or graduate school.

Having read Professor Toro-Farmer's tenure file, I concur with the recommendations from the Division of Natural Sciences, Chair Sandra Gilchrist, and the Provost Advisory Committee that Professor Toro-Farmer has presented a very strong case, and is highly deserving of tenure at New College of Florida.



## Office of the President

February 24, 2023

Assistant Professor Gerardo Toro-Farmer Division of Natural Sciences New College of Florida

#### Dear Gerardo:

I write to inform you that both Provost Suzanne Sherman and I have taken positive action on the recommendation from Natural Sciences and the PAC that you be granted tenure at New College of Florida. The recommendation from the Provost and President will be considered by the Board of Trustees, in accordance with the Collective Bargaining Agreement.

Congratulations on this milestone moment. Ever since New College was founded, our success has depended on the excellence of our faculty, and I am honored to recognize your accomplishments as a teacher and scholar.

In the meantime, warm congratulations once again, as well as thanks for your commitment to the mission of New College.

Sincerely,

Bradley Thiessen Interim President



## Office of the President

#### **MEMORANDUM**

TO: Bradley Thiessen, Interim Provost

FROM: Richard Corcoran, Interim President

DATE: April 14, 2023

SUBJECT: Tenure Recommendation Gerardo Toro-Farmer

Pursuant to Section 4.5 of the Faculty Handbook and Section 15.5 of the NCBOT-NCUFF Collective Bargaining Agreement (the "CBA"), I am submitting this memorandum as my statement detailing the extraordinary circumstances warranting my decision that is contrary to the Provost's recommendation regarding awarding tenure related to the candidate identified in the above-referenced subject line (the "Candidate"). In accordance with the Sections referenced herein, please supply copies of this Memorandum to the Candidate and the Provost's Advisory Committee (PAC).

I recommend the Board of Trustees defer its decision on awarding tenure to the Candidate. If that is not possible, I recommend denying tenure at this time. This recommendation is based on extraordinary circumstances including but not limited to: (1) changes in administration including new President and new Provost – whereby many of these positions are currently held in Interim status; (2) turnover of a majority of the Board of Trustees; (3) a renewed focus on ensuring the College is moving towards a more traditional liberal arts institution; and (4) the related current uncertainty of the needs of the divisions/units and College. These are all factors that I have appropriately taken into consideration in making decisions regarding tenure pursuant to Section 15.3(a) of the CBA.