USF SYSTEM

Request to Establish a New Academic Major/Program or Degree Type Under an Existing CIP Code

Process to Establish a New Academic Major/Program or Degree Type

Requests for new majors/programs or degree types are initiated and developed by the faculty. Approval of the new major/program must be obtained from department chairs and college deans or equivalent administrators before submission for the USF Institution Faculty Council review and approval. Once approved the new option is added to the USF System Degree Inventory.

DEPARTMENT CONTACT INFORMATON	TYPE/PRINT CLEARLY
USF Institution	USF Tampa
College	College of Arts and Sciences
Department	Cell Biology, Microbiology, and Molecular Biology (CMMB)
Contact Person	Kenneth Wright
Phone	813-745-3918
Email	Ken.wright@moffitt.org kewright@health.usf.edu
Chartfield (Budget Acct #)	TPA-1210000-10000-CAS032-0000000-64200

New Program Application Form

NEW PROGRAM INFORMATON	TYPE/PRINT CLEARLY
Degree and Program Title (e.g. M.A. in Biology)	Ph.D. in Cancer Immunology and Immunotherapy
CIP Code (Existing CIP)	26.0911
Graduate Program Name	Cancer Biology
Total Credit Hours	96
Proposed Mode of Delivery (% online if applicable)	In class
Enrollment Projections (FTE) : Year 1 and Year 5	Year 1: 2 Year 5: 5
Projected Cost per FTE	Year 1: $0 taught at Moffitt Year 5: 0
Proposed Implementation Date (e.g. Fall 2014)	Fall 2018

New Academic Major/Program or Degree Type in an Existing CIP Code

Signature Page

Degree and Major/Program Title (e.g. M.A. in Biology)	Ph.D. in Cancer Immunology and Immunotherapy

APPROVALS	Name	Signature	Action	Date
Initiating Faculty	Kenneth L. Wright	Kenneth L. Wright	Requests Approval	
Dept. Chair	Charles Chalfant		☒ Approve ☐ Disapprove ☐ Comments attached	03/26/18
COLLEGE APPROVALS				
College Committee Chair			☐ Approve ☐ Disapprove ☐ Comments attached	
College Dean or Designee	Robert Potter	Robert Potter /sm	☒ Approve ☐ Disapprove ☐ Comments attached	4/4/18
Concurrence* ☐ Not Applicable	Dept: Chair:		☐ Concurs ☐ Doesn't Concur ☐ Comments attached	
Concurrence* ☐ Not Applicable	Dept: Chair:		☐ Concurs ☐ Doesn't Concur ☐ Comments attached	
USF Library Dean or Designee ☐ Not Applicable			☐ Approve ☐ Disapprove ☐ Comments attached	
Faculty Council Chair or Designee			☐ Approve ☐ Disapprove ☐ Comments attached	
Undergraduate or Graduate Studies Dean or Designee			☐ Approve ☐ Disapprove ☐ Comments attached	
System Office of Institutional Effectiveness			Notified on _____	

Routing:

Once approved by College; College will forward to the appropriate USF Institution undergraduate or graduate office for processing through the Faculty Council. Once approved by the Council, the proposal is sent to APPCC for review and approval (unless a doctorate, in which case it is for information only). Upon final approval by the Provost, the new major code for the Program may be created by the Registrar and the VZ application may be activated. The Program will be then be added to the USF System Degree Inventory and posted in the Catalog.

Please provide a succinct, thorough response to each of the following:

Program Summary: (*Briefly describe the proposed program*)

1. Briefly summarize the overall rationale for the new graduate program. Include a consideration of any ways in which the proposed graduate program is distinct from others already offered in the SUS (use the 4-digit CIP as a guide). Discuss how this program supports specific university and SUS missions. Consider collaborative opportunities with other SUS institutions as appropriate. (maximum length 250 words)

The purpose of the new Major is to prepare experts in cancer immunology and immunotherapy who will enter the research field and lead the way in bringing advanced immune strategies to treat cancer patients. Although many Immunology Graduate Programs exist across the country, none are in Florida and most of them focus on infectious and autoimmune diseases. None of them specifically targets cancer immunotherapy making this Major a first-of-its-kind offering. This Major significantly expands the Oncology and Cancer Biology (CIP 26.0911) offering in the State. Our existing Cancer Biology PhD major is the only program in the State in this CIP code. The new Cancer Immunology and Immunotherapy major is a STEM major with a high demand from prospective students and a rapidly growing job market. This collaborative PhD major between USF and the Moffitt Cancer Center leverages the national recognition of both institutes and the leading immunotherapy research by faculty at the Cancer Center and the outstanding educational environment at the USF College of Arts and Sciences. This combined strength will attract the best students nationally and internationally to USF who upon graduation will be leaders in the field and help promote USF into the top 25 of graduate research education. The program will contribute to positioning USF as a top 100 research university through high impact research publications, competitive grant applications and pre-doctoral fellowship applications. Finally graduates with leading-edge training in immunotherapy will be attractive to the growing biotech industry in Florida.

2. Briefly describe how the proposed new graduate program differs from the existing program(s) at USF. (maximum length 250 words)

This Cancer Immunology and Immunotherapy major is unique at USF and given its specific focus on cancer immunology and immunotherapy unique within the USA. USF does not provide any majors in Immunology. This major is distinct from our existing Cancer Biology major which provides a broader training in fundamental cancer biology while the new Cancer Immunology and Immunotherapy major will provide in depth education in tumor immunology and immune based therapeutics against cancer.

Student Demand: *(Describe the demand in the SUS for the proposed graduate program)*

3. Briefly describe the demand for the proposed graduate program and consider the following in your narrative:
    - Recognizing that programs at different levels may require different degrees of justification (e.g., greater duplication may be warranted at undergraduate and master's levels), indicate why duplicative programs should be warranted.
    - Consider the numbers of graduates and students enrolled at similar programs currently offered online or face-to face.
    - Consider as applicable: place-bound learners, underserved populations in the field/profession, and professional credentials requirements. (maximum length 250 words)

Student demand is very high as indicated by 26% of student recruits over the past 3 years in the current Cancer Biology PhD major selecting immunology related laboratories for their dissertation work. Focused recruiting and specialized education in immunology and immunotherapy will significantly enhance student recruitment to this new Major. There are no comparable majors at USF or the SUS. Therefore this major will provide the first clearly defined opportunity for students to obtain an advanced degree in cancer immunology and immunotherapy.

Workforce and Economic Development Needs: *(Describe how the proposed program meets workforce and economic development needs)*

4. Briefly describe how the proposed program meets workforce and economic development needs and consider the following in your narrative:
    - Impact of this program (local, state, national, international)
    - Impact of research funding
    - Changing professional credential requirements (maximum length 250 words)

The dearth of experts who can move basic immune discoveries into the clinic is keenly felt and opens up significant career opportunities for our graduates. The graduates will have the option to work in academia, industry, cancer-related hospitals or in the growing biotech companies helping to bring novel immunotherapies to the forefront. The global cancer immunotherapy market is expected to reach $119 Billion by 2021 according to Markets and Markets research firm. The Moffitt Cancer Center is a leader in immunotherapy research and clinical trials which combined with the outstanding educational environment of the College of Arts and Sciences and USF provides a unique training opportunity for students. In addition, Iovance Biotherapeutics a top 25 biotech company in cancer immunotherapy recently relocated to the USF Tampa campus biotech facility to better access to the local research expertise in immunotherapy, further illustrating the growing opportunities and need for scientists in this field. While the students are in the PhD program they will contribute to the research endeavor supporting current research grants and developing new data to support additional grant applications.

Student Learning Outcomes:

5. Please list the Student Learning Outcomes for the new graduate program (undergraduate programs must comply with BOG Regulation 8.016 "Academic Learning Compacts").

Student will demonstrate effective critical analysis and thinking related to the field of tumor immunology and immunotherapy research.

Course and Faculty Information:

6. Provide a list of the required courses for the new graduate program. (Include course prefix, number, title and credit hours). Please place an (*) next to those the will be newly created for this program.

New courses will be offered under BSC 6939 - Selected Topics in Cancer Biology until the new courses are approved.

PCB6230 - Cancer Biology I: Basics of Molecular Oncology (3 credit hours)
PCB 6231 - Cancer Biology II – Immunology and Cancer Immunotherapy (4 credit hours)
*Immunological Techniques for Cancer Research (1 credit hour)
PCB 6910 - Laboratory Rotations (1-3)
* Cancer Immunotherapy (4 credit hours)
One required elective chosen from:

A. PCB 6205 - Cancer Biology III: Cancer Genomics and Drug Discovery (3 credit hours)
B. PCB 6521 - Cancer Biology IV: Concepts & Techniques in Cancer Genetics (3 credit hours)
C. *Cancer Drug Discovery (3 credit hours)

BSC6939 - Selected Topics in Cancer Biology: Grant Writing (1 credit hour)
* Advances in Tumor Immunology and Cancer Research (4-12 credit hours)
PCB 6930 - Current Topics in Oncology (4-8 credit hours)
PCB 6932 - Bioethics for Cancer Researchers (1 credit hour)
BSC7911 - Directed Research (1-12 credit hours)
BSC7980 - Dissertation Research (minimum 24 credit hours)

7. Provide a list of the faculty who will be teaching courses in the new graduate program and the percentage of effort they will be providing.

Faculty course directors for this major (listed below) are at the Moffitt Cancer Center with Educational faculty appointments in CMMB. The courses for this major will be taught and occur at the Moffitt Cancer Center. Thus they will not directly impact USF faculty effort.

<u>Faculty Course Directors – new courses</u>
Brian Ruffell, Ph.D. 10%
Shari Pilon-Thomas, Ph.D. 10%
Haitao (Mark) Ji, 10%
Daniel Abate-Daga, PhD, 5%

<u>Faculty Course Directors – existing courses</u>
Paolo Rodriguez, Ph.D. 10 %
Conor Lynch, PhD 10%
Mark Alexandrow, PhD, 10%
Alvaro Monteiro, PhD, 10%
Kenneth Wright, PhD, 10%
Kiran Mahajan, PhD, 5%
Gary Reuther, PhD, 5%

Additional Information:

8. Does the new graduate program require additional library resources? Yes_____ No__XX_____
   If yes, please describe the additional requirements. (Approval must be obtained from the Dean of Libraries.)

Catalog Copy (Attach in Word)

9. Using the current Catalog copy for the existing graduate program, make the necessary curriculum revisions to the existing program (using track changes in Word) to reflect the degree requirements of the new program and attach the revised catalog copy.