Resolution for Proposal for
A Micro-Credential in the Foundations of Cognitive Neuropsychology

WHEREAS, the Department of Psychology proposed a **Micro-Credential in the Foundations of Cognitive Neuropsychology**, and

WHEREAS, the proposed micro-credential would help students develop the basic knowledge of brain science, cognitive processing, neuropsychiatric developmental disorders, and assessment of neuropsychological functioning, and

WHEREAS, the proposed micro-credential would help students gain the skill set that is useful in the growing field of healthcare[1], and

WHEREAS, the proposed micro-credential consists of four undergraduate courses which are part of an undergraduate degree and a minor, and

WHEREAS, the proposed micro-credential is built on existing courses and thus requires no additional resources,

THEREFORE, BE IT RESOLVED that the Faculty Senate approve the proposed **Micro-Credential in the Foundations of Cognitive Neuropsychology**.

Submitted by Curriculum and Academic Planning Committee (CAP), May 8, 2020

The Proposal approved by CAP on May 8, 2020

[CAP Membership]
Maria C. Bustamante, Tejas Bouklas, Ruomei Gao,Yu Lei, Anissa Wicktor Lynch, Lorenz Neuwirth, Sheyi Oladipo, Frank Sanacory, Ryoko Yamamoto (Chair)

[1] According to the Office of New York State Comptroller, employment in healthcare occupations are projected to grow by 14% during 2018-2028.

Psychology Department Proposal for Micro-credential in The Foundations of Cognitive Neuropsychology

A. Purpose

The Psychology Department would like to offer a *Micro-credential in The Foundations of Cognitive Neuropsychology*. It is designed for students aspiring towards careers related to the neurosciences (see*Note for Definition) which are broadly in the Health, Allied Health, Basic Research/Industry, and Gerontological/Geriatric, and Neuropsychological Testing and Assessment areas.

The *Micro-credential in The Foundations of Cognitive Neuropsychology* will allow students to gain a solid foundational grounding in brain science (*i.e.,* anatomy and physiology of the central nervous system) and the molecular and biochemical basis of information processing with a specialized focus in cognitive processing, the biological basis of neuropsychiatric developmental disorders, and related testing and assessment of neuropsychological functioning. In addition, the knowledge base of the *Micro-credential in The Foundations of Cognitive Neuropsychology* is specifically related to careers working with populations with cognitive disorders, fronto-executive disorders/syndromes, developmental disabilities, traumatic brain injury, geriatric and gerontological populations in rehabilitative and occupational therapy settings.

While the *Micro-credential in The Foundations of Cognitive Neuropsychology* will be available to all interested students, students majoring in Psychology, Biology, Chemistry and Physics, Computer Science, and Public Health will be more likely to have taken the pre-requisite courses and therefore the Micro-credential will be easier to complete. Students majoring in a discipline other than Psychology will need to complete the specified prerequisites prior to beginning the courses listed for the Micro-credential. The *Micro-credential in the Foundations of Cognitive Neuropsychology* is stackable towards earning the *Minor in Neuropsychology* (*i.e.,* which is the second most sought after minor at the College).

*Note: ***Definition of Neuroscience and related fields***
A program that focuses on the interdisciplinary scientific study of the molecular, structural, physiological, cognitive, and behavioral aspects of the brain and nervous system. Such a program includes: instruction in molecular and cellular neuroscience, brain science, anatomy and physiology of the central nervous system, molecular and biochemical bases of information processing, behavioral neuroscience, biology of neuropsychiatric disorders, and applications to the clinical sciences and biomedical engineering *(NCES, Classification of Instructional Programs (CIP), CIP Code 261.1*

B. Demand

Healthcare employment in New York rose by more than 185% over the past decade, which resulted in doubling the pace of overall State employment growth. Unlike most industries, New York's healthcare sector continued to add jobs throughout this period. This is particularly

notable as this period included during and immediately after the recession 2007, as an aging population presents with the challenges of longer life expectancies, that in turn contribute to the increased demand for healthcare services. The U.S. Bureau of Labor Statistics and the State Department of Labor project continued robust job growth for this employment sector in coming years.

In particular, the shift in the demographics towards an aging population that is identified in this underscores the need for future professionals in the healthcare-related profession to have a solid/foundational understanding of neurophysiological changes over the lifespan and their relationship to age-related cognitive changes and, as well as, a knowledge of the role of assessment in the amelioration and alleviation of, or in the prophylaxis for, age-related fronto-executive disorders/syndromes.

The average annual wages in New York's healthcare industry has increased continuously over the past decade. Growth in healthcare wages have outpaced that of other industries over the same time-period, despite a relative slowdown in the past four years (DiNapoli, 2018; https://www.osc.state.ny.us/reports/economic/health-care-employment- 2018.pdf).

Employment of healthcare occupations are projected to grow by 14% from 2018 to 2028, much faster than the projected average for all other occupations, adding about 1.9 million new jobs. Healthcare occupations are projected to add more jobs than any other occupation during this same time-period. This projected growth is mainly due to an aging population, leading to greater demand for modern and cross-disciplinary healthcare services (DiNapoli, 2018).
The median annual wage for healthcare practitioners and technical occupations (*e.g.,* registered nurses, physicians and surgeons, and dental hygienists) was $66,440 in May 2018, which was higher than the median annual wage for all occupations in the economy of $38,640 (*i.e.,* a 58.16% increase; DiNapoli, 2018).

Employment of life, physical, and social science occupations are projected to grow by 7% from 2018 to 2028, faster than the average for all other occupations, which will result in about 97,400 new jobs. Thus, there will be an increasing demand for expertise in the sciences, particularly in occupations involved in biomedical research, psychology, cognitive disorders, pharmacology and drug development, energy management, and environmental protection, is projected to result in employment growth (DiNapoli, 2018).

The median annual wage for life, physical, and social science occupations was $66,070 in May 2018, which was higher than the median wage for all occupations of $38,640 (*i.e.,* a 58.48% increase; DiNapoli, 2018).

C. Resources

All of the courses listed for the Micro-credential in *The Foundations of Cognitive Neuropsychology* are currently offered regularly by the Psychology Department. Therefore, there will be no additional resource needs to implement the proposed Micro-credential in *The*

Foundations of Cognitive Neuropsychology at Old Westbury. The Psychology Department has recently hired a new faculty member that is beginning in the Fall of 2020 that also specializes in this area to support the course offerings from the Psychology Department.

D. Cost, Financial Aid, Stackability, and Portability

Since the courses in the *Micro-credential in the Foundations of Cognitive Neuroscience* are part of the regular course offerings from the Psychology Department, the cost will be same as the regular per-credit cost for courses taken as part of the regular academic program for students. Psychology majors will be able to utilize financial aid. For students who are not Psychology majors, micro-credential courses will be eligible for financial aid if they fall within the college elective component of the student's degree program (as with a minor).

As stated earlier, the Micro-credential is stackable to the *Minor in Neuropsychology*, and to the Psychology major. However, there can only be a one course overlap between the Psychology major and *Minor in Neuropsychology*.

The courses required for the Micro-credential in *The Foundations of Cognitive Neuropsychology* are regular for-credit Old Westbury classes, and therefore will be transferrable to other SUNY institutions according to their relevant policies. Information about the Micro-credentials will be included in all marketing materials publicizing this program accordingly in conjunction with Academic Affairs, the School of Arts and Sciences and the Psychology Department.

E. Title

The proposed name, *Micro-credential in The Foundations of Cognitive Neuropsychology,* is not the title of any registered degree or certificate program in New York State.

F. Assessment

The *Micro-credential in The Foundations of Cognitive Neuropsychology* will be assessed along with the Psychology major and *Minor in Neuropsychology* as part of the regular 5 year Review conducted by the Department of Psychology.

Additional Materials

The following is the Catalog copy for the proposed Micro-credential:

Micro-credential in The Foundations of Cognitive Neuropsychology (16 credits)

The Micro-credential in *The Foundations of Cognitive Neuropsychology* is intended for a broad range of students interested in careers in Health (*e.g.,* medicine, osteopathy, pharmacy, and veterinary medicine) and Allied Health (*e.g.,* nursing; occupational, physical, and rehabilitation therapy), psychology, and forensic/criminal sciences. It is particularly useful for those students interested in careers and professions related to services for developmental disabilities, special education, clinical and neurological

testing, mental health counseling, basic and clinical research. This Micro-credential can be applied to courses taken in partial fulfillment of the Psychology major, the Neuropsychology Minor, and the pre-Health and pre-Allied Health programs of study.

Requirements

Students are required to take 16 credits by completing the listed courses with a grade of "B" or higher:

Micro-credential in *The Foundations of Cognitive Neuropsychology*

PY 3410 Cognitive Psychology
PY 4403 Cognitive Neuroscience
PY 4610 Clinical Neuropsychology
PY 4401 Developmental Neuropathology

Skills and Competencies to be Gained

The Micro-credential in *The Foundations of Cognitive Neuropsychology* will provide students with foundational knowledge and skills:

- Anatomy and physiology of the central nervous system and the molecular and biochemical basis of cognitive higher-order cortical information processing
- Specialized focus on cognitive processing and the biological basis of neuropsychiatric and developmental disorders
- Clinical understanding of brain injury and traumatic brain injury at both early and late developmental stages of life
- Clinical neuropsychological testing of fronto-executive disorders/syndromes, dementias, age-related changes in cognition (*e.g.,* Parkinson's and Alzheimer's diseases)
- Neurological/neuropsychology testing, measurements, and assessment of disorders and dysfunctions in comparisons to health individuals
- Be able to communicate this knowledge effectively