KINGSBOROUGH
COMMUNITY COLLEGE

LETTER OF INTENT FOR A DUAL/JOINT ASSO[CIATE] [OF] SCIENCE (A.S.) IN EARTH AND PLANETARY S[CIENCE AND] BACHELOR OF ARTS (B.A.) OR BACHELOR OF [SCIENCE] (B.S.) PROGRAM IN GEOLOGY TO BE OFFERED [JOINTLY] BY KINGSBOROUGH COMMUNITY COLLEG[E AND] BROOKLYN COLLEGE

THE DEPARTMENT OF PHYSICAL SCIENCE[S OF] KINGSBOROUGH COMMUNITY COLLEG[E] PROF. DR. JOHN MIKALOPAS, CHAIRPER[SON]

THE DEPARTMENT OF GEOLOGY OF BROO[KLYN] COLLEGE PROF. DR. WAYNE POWELL, CHAIRPERS[O]N

Contact Person: Prof. Dr. Harold C. Connolly Jr.

Kingsborough Community College Council Approva[l]

Proposed Initiation Date: <u>Spring 2010</u>

and earth ... them meet ... EPS-related ... several stu... n. ...air ...in ...h a ...bre... v... lec... ge... Yo... k... ...ie last ... ll target ...credentials ...schoo... sys... em, o... years. ...rning ...for th... which we hav... ...areer persons ...purpose of te...

3. STUDEN...

We foresee... ...so... r... ...ud...m...

(1) Entering... students int... CUNY and... with the int... took Physic... Introduction... University. ...our-year deg... attending Hc... ...rest... ...ing p... s. ...g a... 3... and... stu... gy, ec... Fc... ...ir E... ...ole J... ...in M... ...ne ol... ...t... ...c... ...ro... le... ...areer i... E... S. In... ...iave gc... ...e... John b... gan ...ology... Fl...rida S...te University. ...astron...my ...EPS 3...). ...everal ...tudents have ...ed EPS cou...ses an... ...Brookl...n ...ollege ...recent years, ...r-year progra... ...ege career at... ...in CU...NY and at Cc... ...are now pur... ...except one w...

2) Students... y the subject... t least 10%... ...ueman, wh... ...d was mot... ...aduated fro... ...useum of N... ...S c... ...that... ...md... ...tior... ...the a... ...lle... ...s sc... ...atisfy ...neral re...qui...ement ...C...tu...s enroll in ...PS cou...ses each year ...one E...course. Th...s was... ...S...cie...(EPS 3...) a...KCC ...d 1 la...y scier...es further ...cur...er...full-ti...e...mploy ...ssi...ta...the cur...tor...of min...als. ...id become ex... ...he case for J... ...became intere... She subseque... ...of the Amer...

(3) Students ...Planetary Sci... ...Brooklyn Col... 3...), Oceanogra... ...Brooklyn C... KCC faculty t... ...ursr... ...are c... ...ing In... ...y...anc... ...ionge... ...are... e... ...s i... educa...on. ...for ...Earth ...cie...n o...onomy...(El...log...31), w...ic...log...irtment at ...h...e...ve spec...al e... The ...S. in Earth ...cie...ce Te...cher program ...S 35), ...Planetology (I... ...are n...currently offe... ...C is i...erested in hav... ...pertise...

	Yea...	Yea...	Year 4	Year 5
Full Time	ht...	1...	12	14
Part Time	1 N...	6...	8	10

4. CURRICULU...

The cur... Transferability... well as other p... entering any th... field (Table 1). ...d ce... ...ear... ...s (8... ...gy/4... ...ology... ...ude...t... ...s a... ...rar... ...gram a... Bc... ...I comp...ete ...cs a...hemistr...), ...ng to...su... ...and c...her universit... ...basic c...urses in EPS ...which...e necessary f... ...cessfu... career in the

writi... ...ments: Pass... ...es on the CUNY tests in r[e]ading,
ENG ... le velopmental ... work will ...e required. If re[q]uired,
R2. ...d/or ENG 93. ...ed MAT[M]1 and MAT M2 o[r] MAT

Table 2. ...er[m]ts and awarded ...each cours[e] needed for an A. S. d[e]gree in
EPS wit... ...[de]partment at KCC...

Co...	...		CRE[D]ITS	
EN...	...io[n] I			
EN...	...[ti]on II			
H?...	...[ed]ucation			
D...[e]	...n[e]ts	2		
EPS...		4		
EPS...		4		
EPS...		4		
EPS...		4		
EPS...		4		
Bot[h]				
PHY		4		
CHM		4		
Mat[h]		8		
MA[T]		4		
MA[T]		4		
Gro[u]		9		
Total	...s 1-1V	9		
Fre[e]		5		
Tot[al]		60		

...[R]... Graduates f[rom] ...S. degree [i]n EPS from KCC [w]ill
have aut[hor]... ...[i]t[i]al lower tier ...[req]uirements [f]or BC B. A. and [B]. S.
degrees.

Table 3. C[o]... ...[fo]r B. S. and B. ... offered by [th]e Geology Departme[n]t at
BC. The th... ...[e]n [s]...[io]n of courses tal... ...A. S. deg[re]e in EPS in the Ph[y]ical
Sciences De[pt]... ...[b]e transferred for... ...[a]t BC.

* These in... ...the following... ...ology of the ... ...L 14.4), E arth... ...al Pa ks (...)L 14... ...The History ...Life (GEOL14.2... ...oncepts in R...onal Geography ... ...als (G OL ...5), Ecc ... ...Geology and ...ergy (GEOL 17.... ...ledical Ge olo... ...)L 18... Soli d...nd Ha:... ...s Waste Mana...nent (GEOL 19.... ...ological A pe...nserv tion:... EOL ...,... Irogeology of... 'ater Resources (... ...23.1), Ge on...gy (G OL ...),... Sta... s...d Data Anal... is in Geoscience...)L 28.2), F list... eolog (GE ...33.1),... ...ology (GEOL...3.2), General Ge... ...cs (GEOL 43...1 Top... in Ch...ogy (... ...0.1), Special ...pics in Environ... ...Geology (...70.2), Inde...dent ... ... I (GEOL ...3.1), Independent... ...rch II (GE OL... ndepe dent P... search ...OL 83.3), Ser...ar I (GEOL 84.1... ...inar I (GE OL... emin... I (C E... L 84.3... ** Credits f... ...CC that wi l t... ...the d...gree... fered ...

Kingsborou... ...mmunity Co... ...Departۛ...ient ... Phys... ...iences, Eart...and Planetary Sc... ...l.

Dr. Harold C... ...lolly Jr., A ssc... ...fesso...
Dr. Cyrena S... ...lrich, Assi tar... ...sor
Dr. Michael ... ...isberg, Prc fes...
Robert Scher... ...ollege Lab ra... ...hnicia...

The ...ment of Ph...cience s cu r...tly ha...r full-time f...lty members wit... ...xpertise in El...essors Haro c... C. Con...., Ph.D. (Ass...ate Professor), C... S. Goodri h,... Assist nt P c...ssor) ...M i hael K. Wei...rg, Ph.D. (Profe... ...Together the...nplish ents:... ...cosm...r ii stry and plar...ary sciences mak... unique a mc...nce de partme...s acro...e c ountry. Ver...ew institutions l... three acti e ... mem bers t... ching ... esearching v... nin cosmochemis... Furthermo e,... ...o, they are al...tently ...d high ratin...in student evalua... ...of their tea chi... ...rincip...s igators on N...A- funded resear... ...nts and Co -In... ...rs on num r...s othe...A- and NSF-f...ed grants. They... ...ell-publish ed... revie ed j t...als an...e on many nat...al and internatio... ...mmittees. Pr...Conno ly w s...ecorat...y t e U. S. Con...ss and Departme... ...Navy with the... tic Se vice N...dal fo...c to his count...in Antarctica an... ...ls uncompen...sition at h...Amer... useum of N...al History (Rese... ...ssociate), the... and P laneta n...Labor...the Universi...of Arizona (Adju... ...ssociate P rof... f Plar tary S ences... utgers Unive...ty (member of th... ...luate Facu lty... hree p ofes c... are a...bers of the I...th and Environm... ...sciences D ep...of the Grac u e Cen...UNY. Profe...rs

...berg and ...lly a... ...s in ...'ust sample return mis... ..., Professor
...berg as a ...ber ...inary ...ation Team. Stardus... ...s the first
...on to succ... ...ly b... ...les ...t. Professor Connoll... ...currently a
...or of the ...ce t... ...er ... ...ssion that is in the ... ...osal stage,
...I.S Rex. ...ssors ...d W... ...re also Co-Is on a ...grant for
...rch Exper... ...for ... ...s (R... ...re CUNY is the lead ...tution and
...merican M... ...n of ...y is ...ing institution. Profe... ...Weisberg
...odrich al... ...ld ur... ...posi... ...esearch Associates a... ...American
...h of Nat... ...istor...

In addit... ...o th... ...EP... ...ty at KCC, facilities... ...a well-
...ished infra... ...ure ... ...KC... ...o additional equipme... ...establish
...first degree ...am. ...epar... ...f Physical Sciences at ... ...we have
(1... ...re space ...abor... ...) al... ...ratory equipment we ... ...including
...al and rock ...les, ...micr... ...twelve of them plus ... ...eo system
...truction), ...uter... ...more ... ...e a new, NASA-func... ...econdary
Electron Micros... ...SEM ...ind... ...Thi... ...ting-edge technology ... ...r devoted
to ...investigati... ...e wi... ...aneta... ...rials. Our students wi... ...ve hands-
or ...ical expe... ...e are ...ent ...eir studies. Since Ki... ...orough is
th ...college ...ion ... ...of-t... ...M, Brooklyn College ...dents will
al... ...given in ...fer th... ...ent ...r courses. Clearly, Kii... ...orough is
al... ...equipped ...EPS ...e. W... ...s so very fortunate to ha... ...r. Robert
Sc... ...k as a CL... ...T du... ...cam... ...ith a M.S. from Adel... ...niversity
an... ...art of hi... ...s ad... ...mair... ...SEM laboratory. We ...also very
for... ...t... in that I... ...d is ... ...nt instructor.

Br...wn College ...artm... ...y:

Dr. ...phen Aja, ...iate ...
Dr. ...ecca Bog... ...sista... ...
Dr. ...n Chambe... ...t Pro... ...
Dr. ...gqi Cheng ...istan... ...
Dr. ...r Cheruk... ...i, Pr... ...
Dr. ...s aintin C... ...nu, ...esso... ...
Dr. ...n Marra, P... ...sor ...
Dr. ...e Powel... ...ocia ...
Dr. ...n Savage, ...ssor ...
Dr. ...i Seidem... ...rofe...

...ooklyn ... ...e ha... ...red I... ...nt of Geology with a ... ...rse
fac... ...th streng... ...var... ...eol... ...a very well establishe... ...re
curr... ...n and fac... ...s. T... ...ssen... ...SF-funded center fo... ...th
Sci... ...ducation...

6. Cos...

start th... s ly... al to no cost... partment an l the College to
Educat... e sev... a courses req... mplete the degree. General
The si... e d... are already a... d have stro ig enrollments.
Physic... c l by... major run ev... ter with strong enrollment.
would... ? y ru... ery semester... g enrollment. Minor costs
printer...) sup... such as pap... tocopies, staples, toner for
materia... i ed i... exceed $300... year. Most of our teaching
resourc... fot... posted on li... Blackboard or other web
courses... v no... e enough fu... ulty to teach all the EPS
winter a... i lea... djuncts per s... id potentially two for each
another... ic 'or... inger term it... d that we will need to hire
... il per... assistant pro... l.

program... l co... id anticipated... for the first 5 years of the
... p d ta...

IT ASSESSMENT

There will be es entia... minir... to the De
is program. Th t are... entee... ired to co
ion requirements for th... egree... available a
EPS courses e quirec... the... ry semes
s and general c emistr... in ev... with stron
be incurred for office... plies... r for ph
s, etc., and is a ticipat... not t... 0.00 per
ls are printed in book... in or... e throug
es. Currently, we do... t ha... l-time fa
, thus we must h re at... st 4... mester a
ind summer sess ons. I... the l... s projec
full-time facult hemt... at the... essor lev

Anticipated cumulative... sts a... revenues
t follow in the ap ende... bles.

Projected Revenue Related to the A.S. in Earth and Planetary Science

Revenue Sources		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Tuition Revenue						
01. From Existing Sources[‡]	01.	$15,920	$23,880	$31,032	$29,838	$44,330
02. From New Sources[§]	02.	0	$7,960	$11,208	$22,638	$18,092
03. Total	03.	$15,920	$31,840	$42,240	$52,476	
State Revenue						
04. From Existing Sources	04.	$21,400	$40,125	$51,585	$36,850	$65,160
05. From Existing Sources	05.	0	$13,375	$19,005	$36,850	$24,435
06. Total	06.					
Other Revenue[11]						
07. From Existing Sources	07.	0	0	0	0	0
08. From New Sources	08.	0	0	0	0	0
09. Total	09.	0	0	0	0	0
Grand Total						
10. From Existing Sources	10.					
11. From New Sources	11.		$21,335	$30,213	$59,488	$42,527
TOTAL		$37,320	$93,240	$114,830	$126,176	$152,017

* Beginning in the third year and each subsequent year, an inflation rate of 1.5%...

† The tuition was calculated at $1,540 per full-time student per semester and $120 per credit per part-time students assuming an average of 15 credits were completed each year.

‡ Existing sources means revenue that would have been received by the institution...

§ ... this major. Therefore, ... earth and planetary sciences could be enrolled. Less than half of majors will enroll in the...

11 New sources means revenue engendered by the proposed program. The revenue from new sources from the previous year should be carried over to the following... revenues from new sources with an increase of... is a continuing source of revenue.

The rate applied in Years 1 through 4...

†† Enter total of Tuition, State, and Other... category.

Projected Expenditures

Expenditures	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Faculty					
New Resources	0	0	$80,400	$81,600	$82,830
New Resources	$3,000	$3,000	$3,000	$3,000	$3,000
Other					
New Resources					
Total			$83,400	$84,600	$85,830

[1] Cost of one additional full-time assistant professor, including cost of fringe benefits.

[2] Inflation of 1.5% added to faculty and new years.