- 82: 154 7 . 7; 36893 0) , * * ++#% . . $$" , (/ &! ' %+/ "(- ! . ++'

Board of Regents Program Action Request
Proposal to Discontinue a Program of Study
University of Alaska

1a. UA University	1b. School or College	1c. Department or Program
UAF	CNSM	Geosciences

2. Complete Program Title:	BA in Earth Science

3. Type of Program:

Undergraduate Certificate		Associate		Baccalaureate	x
Master's		Doctorate		Post-Baccalaureate Certificate	

4. Type of Action: [x] Discontinue

Implementation Semester: Fall Year: 2020

5. Other programs affected by the proposed action, including those at other campuses (please list):

Program Affected	Anticipated Effect
none	nothing anticipated

Page number of attached summary where effects on other programs are discussed: _____

6. Specialized accreditation or other external program certification needed or anticipated. List all that apply or

4 $ x Ž0 3 Tea

Suf = ,

VPASR

Revised: 11/11/2019

DocuSigned by:

2020

- 82: 154 7 . 7; 36893 0), * * ++#% . . $$", (/ &! ' %+/ "(- ! . ++'

University of Alaska – Fairbanks
College of Natural Science and Mathematics

- 8Ƨ: ⊥ᘐ↿ ˙ ↿ˈ 3Ꞵ8ϑ3 0)‘ ⁎ ⁎ ++ ⅋º ˙ ˙ ⁋⁋„‘ (\ Ꞵi ‚ º\„(- ¡ ˙ ++‚

KDD/dd Z KDD E d/KE &KZ ' K^ / E ^

^dZ E'd,^W

- W Œ}P Œ u• u š •] v v • }(šZ •š š X
- K((Œ• ' Z• v Œ ‹µ]}ŒE }šZ‰µŒE•u•i{Œ•µŒE•Á•o(o}Œ• '}}•] v • u i}Œ•X
- ^šŒ}vP PŒ µ š ‰Œ}PŒ u•U Œ ‰Œ h v&š[]•vPWZ •]XPv](] vš ‰
- & µošÇ À ŒÇ ‰Œ}ŒEµZš]vÀ ‰vÀŒE ‰Œ}À}u‰µš]v•P [v Œ Æš Œv P Œ vš•X
- D}•š }(šZ PŒ µ š]vP •šµ vš•]šZ ŒE š}]v}šv]v}ŒE {]vvš} Z]PZ u‰o}Çu vš]v šZ P }•] v •X
- Œ]š] o o]vl Á]šZ šZ ' }‰ZÇ•] o /v]•š]oš µš ŒW 'ZK•^ (Œ µZošŒ šv Œ Œ] }µš Ç PŒ µ š •šµ vš•]v šZ}• W Zv •vU D^ ‰Œ}PŒ ' }‰ZÇ•] ••X
- o}• }oo }Œ š]}v Á]šZÀ]•Z]}v d}(•' }o}'P}]‰ZÇ•v] o ^µŒÀ Ç• ~ ''^• X

t <E ^^ ^W

- vŒ}oou vš]v ' }•] v ‰Œ}PŒ u• Œ]v •šZv %(šŒ•}oÁ]µšuZ vš]Á u]v]vP]v µ•šŒ] •X
- Z µ š]}v]v vµu Œ• }((µošÇ Z • o}u[]šŒ •šŠZµ ÿ}šŒEU• v}((ZŒ•]Œ šoÇ ((š šZŒ}PŒ uµ š]v‰ (Á ŒÀ(]oµoošÇš}Œ•µ‰ ŒÀ]• v •µ‰‰}Œš •šµ vš•X
- Kv }(šZ •š ((‰Z•]•š]v}}vš• šZvšŒ ‰o Œ š]•}Œš Z}(š]Z À v /v•šŒµu vš š]}v > }Œ š}ŒÇ ~ />•X
- • ~

!Q"]ðÓÆ 0öð• 0 v }
o }µŒ• • }µvoŒE}]ovoŒE vš•U •‰µš]r}o(o•Çš (šŒE}•uš µ} vš•X
Z •µ‰‰}Œš W & µošÇ]v šZÇ •µ‰ Œ•š(µuovš• ZµÀE]vP v Z]PZo
o (µv]vP PvPŒEµ‰µ‰š}Œ•šš]µv vš• }v Z •X
o v Z uv}ß ^^]vv•] Œš](] š X
v š]}v o i} u v (}Œ ' }•] voš]o•šÀ•W šušvZ (v}Œš]}v

' }•] vš]•š•]• Æ‰Œ š• šÇ}]vv0]v šZ ‰î‰ÔŒEX]} îìíôt

d,Z d^W

EdZ >/dz dK D/^^/KEW

· ^ ŒÀ • µv]‹µ •] v v • }(šZ •š š X

/E / dKZ^ K& Yh >/dzW

· & µošÇ v •šµ vš• Œ Z]PZoÇ ‰ŒÆ£šµ Œ£]vÀo](vµ‰]uvP}X š]}v

· u‰o}Çu vš }(PŒ µ š •X

K^dr && d/s E ^^W

· õ &d • (}Œ íóî •šµ vŒš• µ±õšð•µ˜v óŒEPŒ µuvšE••šÁE]šŽš • o Œ]

v v (]š• }•š }(‰‰Œ}Æ]u š oÇ ¨íXòñ u]oo]}vX

	D :KZ^	'Z ^
ŒšZ ^] v	&&ízõ˜WWôòl	&zíñW ìl &zíõW í
' }PŒ ‰ZÇ	&zzíõñWWôííl &	&zíñW îl &zíõW ì
' }PŒ ‰ZÇ ^	&&ízõ˜WWíìíôl &	&zíñW ïl &zíõW î
' }•] v ^	&zízñ˜WWõôlô&	&zíñW ôl &zíõW ó
' }•] v D^	&zízñí˜WWîñlò&	&zíñW ðl &zíõW õ
' }•] v WZ	&&ízñ˜WWíílí	&zíñW ìl &zíõW ì
' }‰ZÇ•] • D^	&zzíõñWWõíîl &	&zíñW ïl &zíõW í
' }‰ZÇ•] • WZ	z&íõ˜WWïîñl &	&zíñW ìl &zíõW ñ

Ž' }•] v Á • (}Œu ŒoÇ ' }o}PÇX

KDD/dd Z KDD E d/KE &KZ ' K^ / E ^

ŒšZ ^] v W

Z KDD E d/KEW	/KdD/KEEd^W	d &KZ &K>>KtrhWW
}vš]vµ š]}v Ál]u‰Œ}À u vš ‰o	/u‰Œ}À vŒ}oou vš}ô ÀP}Œ ••	vdšÁ}vÇ šŒEu•

' }PŒ ‰ZÇ W

Z KDD E d/KEW	/KdD/KEEd^W	d &KZ &K>>KtrhWW
Z À]•]}v }Œ Œ •šŒ À}š ••	µZšµEŒ]•~ô}š u}v•Œ v (}Œ }šZ šZ ‰ Œšu vš •Z}µo ÁZ] Z]• v]v	v ^X] }Œ Œ š}

	(} µ• ((}Œš• }v •šµ vš•[•µ ••]v šZ š PŒ X	

' }PŒ ‰ZÇ ^W

Z KDD E d/KEW	/KdDƲKEEd^W	d &KZ &K>>KtrhWW
Z À]•]}v }Œ Œ •šŒ µ lZšµŒŒ]•~ôv}š u}v•šŒ šÇ Œ À}š ••	v (}Œ }šZ šZ v ^X ‰ Œšu vš •Z}µo] ÁZ] Z]• v]v }Œ Œ š} (} µ• ((}Œš• }v •šµ vš•[•µ ••]v šZ š PŒ X	

' }•] v ^W

Z KDD E d/KEW	/KdDƲKEEd^W	d &KZ &K>>KtrhWW
}vš]vµ š]}v ~ô À}š ••		

' }•] v D^W

Z KDD E d/KEW	/KdDƲKEEd^W	d &KZ &K>>KtrhWW
}vš]vµ š]}v ~ô À}š ••		

' }•] v WZ W

Z KDD E d/KEW	/KdDƲKEEd^W	d &KZ &K>>KtrhWW
}vš]vµ š]}v ~ô À}š ••		

' }‰ZÇ•] • D^W

Z KDD E d/KEW	/KdDƲKEEd^W	d &KZ &K>>KtrhWW
}vš]vµ š]}v ~ô À}š ••		

' }‰ZÇ•] • WZ W

Z KDD E d/KEW	/KdDƲKEEd^W	d &KZ &K>>KtrhWW
}vš]vµ š]}v ~ô À}š ••		

Daniel M. White, Chancellor

P.O. Box 757500
Fairbanks, Alaska 99775-7500
907-474-7112
uaf.chancellor@alaska.edu
www.uaf.edu/chancellor/

March 23, 2020

TO

edges of our mission, and reducing footprint. And we will continue to identify what work we can simply stop doing.

3 H U W K H U H Y L H Z F R P P L W W H H ¶ V U H F R P P H Q G D W L R Q V Z H Z L

I concur with W K H F R P P L W W H H ¶ V U H F R P P H Q G D W L R Q V L Q D O O R W H
except in the following where I have recommended a different path

1. Atmospheric science – delete with opportunities for students in existing departments in similar areas (e.g., physics, chemistry, engineering) including possible alternative appointments at UAF for research intensive faculty
2. BA Earth Science – delete
3.

DATE: 11 November 2019
TO: Expedited Program Review Committee
FROM: Kinchel C. Doerner, Dean, College of Natural Science and Mathematics
SUBJECT: SWOT Analysis for Department of Geosciences

Introduction The Department of Geosciences is an academically diverse department responsible for both undergraduate and graduate degrees. The educational services provided by the department are critical for Alaska and the w(tm)20().[O l81.07 681.82 Tm 0

This analysis is written to help the committee understand the specific fiscal challenges facing the department. The SWOT analysis provided by the department relays an accurate description of the breadth, depth, and scale of department initiatives and faculty so will not be repeated at length here.

Strengths 7 K H G H S D U W P H Q W ¶ V V W U H Q J W K O L H V L Q W K H V F K R O D U V K L S R I W K H faculty produce many scholarly publications, write and are awarded many competitive grants, and teach across at least two distinct disciplines. The expertise of the faculty is critical to the industrial infrastructure of AK (e.g. study of oil and gas formations), the municipal needs (e.g. coastal erosion) of AK, and an understanding of the circumpolar north. The degrees programs prepare students in these critical areas for direct employment in Alaskan organizations and loss of the programs will noticed by external stakeholders. I feel the strengths and relevance of this department are self-evident and are adequately L O O X P L Q D W H G L Q W K H G H S D U W P H Q W ¶ V U H S R U W

Weaknesses 7 K H G H S D U W P H Q W ¶ V Z H D N Q H V V L V L Q L W V U H O D W L Y H O Q Z D U H Q H V V L Q L W V U H V H D U F K S U R J U D P V H U Q U H O D W L Y H O Q Z D U H Q H V V L Q L W V U H V H D U F K S U R J U D P V In FY19 the department had 174 total students (19.3 students/ faculty member). While this is a reasonable number, many departments have a higher student to faculty ratio toward graduate programs (i.e., M.S., Ph.D.) which necessarily require fewer students per faculty member. If we consider the undergraduate and graduate enrolment separately we have 10.6 students per faculty (96/9.01) and 8.7 (78/9.01) students per faculty, respectively. Graduate enrolment is nearly equivalent to undergraduate enrolment. While the number of undergraduate students should be increased, geology and geography are disciplines which tend to attract large numbers of students or provide service courses to other departments and colleges. Thus it is unlikely for Geosciences to quickly realize substantial increases in undergraduate students. Also, substantial increases in graduate students would not benefit the department, as adding graduate students requires hiring additional faculty exasperating the situation.

Perhaps stated more clearly, the department currently manages its finances using an undergraduate model. That is, state support and tuition/ fees received from both non-majors and majors are used to subsidize the graduate programs. This model works well for departments with high undergraduate enrolments and modest research efforts; however the Department of Geosciences has the opposite structure with a modest undergraduate profile and an extensive research program. The current fiscal model is inappropriate and not sustainable.

Any increase in extramural funding received by faculty members will not benefit the department. Nearly all indirect cost recovery realized by Geoscience faculty (with few exceptions) is received by the university to be applied toward general overhead costs or received by the research institute to which the faculty member has sponsorship. Very little indirect cost recovery from extramural funded projects is available to the department to be applied toward academic salaries or other expenses. Similarly, extramural funding to expand research, which pays for tenured or tenure-track faculty salaries for a few years should not be considered a viable solution to the fiscal problem of the department. Eventually, the extramural funding ends but the faculty salary costs continue, sometimes for decades. Thus, any claim that increasing levels of extramural funding will alleviate the fiscal challenges

IURP UHVHDUFKLQVWLWXWLRQV VHUYHRQRXUJUDGXDWHVWXGHQWVWKHMV FRP PLWWHV DV FRRSHUDWLQJ GHSDUWHQW IDFXOW UHVHDUFKIDFXOV SUP DUKD IURP * , VXSHUYLVHG JUDGXDWHVWXGHQWZKR ZHUH HQUROOHG LQ RXU 0 6 DQG 3K' GHJUHH SURJUDPV

(QUROOPHQWLQ WKH* HRVFLHQg–‡PÐ `W

* HRSK\ VLFDO6 XUYH\ V 8 QLWG 6 WDWHV * HRGRJLFDO6 XUYH\ $ODVND 9RGDQR 2 EVHUYDWRU\ $ODVND
(DUWKTXDNH &HQWHU 12$$ 1$6$ DQG WKH ,QWHUQDWLRQDO2 FHDQ' LVFRYHU 3URJUDP

: H HGXFDWH VWXGHQWV IRUMRE V DQG FDUHHUV VXFK DV DWPRVSKHULF VFLHQWLVWV QR[3RJR 0 LQH $ODVND' HSDUWPHQWRI 1DWXUDO5 HVRXUFHV WKH %XUHDX RI / DQG0 DQDJHP HQWP DWRUQDGRQDODQG LQWHUQDWLRQDOFRQG JDV FRP SDQLHV HQYLURQP HQWDOFRQVXOWQJ ILUP V HJ 6KDQQRQ DQG: LOVRQ VHFRQGDU\ HGXFDWRQ DQG RWKHUJRYHUQP HQWDJHQFLHV

7KH8$) * HRSK\ VLFDO QVWUXPH * , DQG WKH8$) ' HSDUWPHQWRI * HRVFLHQFHV * (26 IRUP D FUMFDO ODQN WKDWV YLWDOIRUWKH VXFFHVV RI ERWK HQWHV 5HVHDUFK DWWKH * , LV ORGE\ * (26 IDFXOW DQG FDUHHG RXWE\ JUDGXDWH VWXGHQWV LQ WKH 3K' DQG0 6 SURJUDP V * HRVFLHQFHV * HRSK\ VLFV * (26 IDFXOW EHQHILWURP * , IDFLOLWHV HJ UHVHDUFK FRQSXMQJ JHRFKURQRORJ\ ODE $ODVND (DUWKTXDNH &HQWHU $ODVND 9RGDQR 2 EVHUYDWRU\ $ODVND 6 DWHOOLWH) DFLOLW DQG IURP FROODERUDWRQV ZLWK * , QRQ* (26 IDFXOW

7KH $ODVND ' LYLVRQ RI * HRGRJLFDO DQG* HRSK\ VLFDO6 XUYH\ V ' * * 6 IRUP V D VHFRQG FUMFDOODQN ZLWK* (26 ' * * 6 ZKLFK LV ORFDWHG DGMDFHQWWR FDP SXV LQFOXGHV GR]HQV RI JHRGRJLVWV ZKR VHUYH RQ JUDGXDWH WKHVLV FRP P LWWHHV RI 8$) VWXGHQWV LQ JHRVFLHQFHV * (26 VWXGHQW DUH URXWLQHO KLHG IRULQWHUQVKLSV WR FRQGXFWDQG VXSSRUW * * 6 JHRGRJLFDOUHVHDUFK IRUWKH WDWHV RI $ODVND 0 DQ\ FXUUHQWHP SOR\ HHV DW* * 6 KROG XQGHUJUDGXDWH DQG RUJUDGXDWH GHJUHHV IURP WKH' HSWRI * HRVFLHQFHV

7KH* HR) 25 &($ODVND SURJUDP ZDV OXQFKHG LQ DWWKH UHTXHVWDQG H[SHQVH RI LQGXVWU VSRQVRUV &XUUHQW HQWMULQJ LW WR\ HDU * HR) 25 &(FROXMXHV WR EH IXQGHG E\ $ODVND EDVHG FRP SDQLHV DQG1DWH &RUSRUDWRQV SURYLGLQJ DQ IP SRUWDQWSURJUDP WR HQFRXUDJH DQG PRWM SRWWVHFRQGDU\ 67(0 HGXFDWRQ DQG FDUHHUV IRUUXUDO$ODVNQV

: ($.1(66(6

* HRVFLHQFH LV D F\FOFDOLQGXVW DQG WXGHQWHQUROP HQWQ* HRVFLHQFH SURJUDP V DFURVV WKH FRXQW UMHV DQG IDOOZ LWK DFWLYLWLQ WKH SHWHRXP DQG P LQLQJ LQGXVWHV 2 XUFXUHQWGWZ HUWXGHQWHQUROP HQW LQ DOOSURJUDP V H[FHSWWKH0 6 * HRVFLHQFH UHIHUHFWKRVH IDFWRUV KHUH LQ$ODVND DV ZHOO

: H KDYH GRWWHLJKWDFXOW SRVLWRQV LQ* HRGR\ DQG* HRSK\ VLFV DQG WZR WDII SRVLWRQV VLQFH RXUODVW SURJUDP UHYLHZ 0RWWRI WKHVH IDFXOW SRVLWRQV KDYH QRWEHHQ UHSODFHG 7KH UHGXFWRQ LQ QXP EHUV RI IDFXOW KDV OP LWG RXUFRXUVH RIIHUQJV IRUVWXGHQW DQG KDV GLUHFWO DIIHFWG RXUJUDGXDWH SURJUDP V VLQFH IHZ HUIDFXOW DUH DYDLODEOH WR VXSHUYLVH DQG VXSSRUWWXGHQW 7KH GHFUHDVHG HQUROP HQWQ WKH 06 DQG3K' * HRSK\ VLFV DQG3K' * HRVFLHQFH SURJUDP V LV GLUHFWO DWWUEXWDEOH WR IHZ HUIDFXOW LQ WKH GHSDUWP HQW

2 QH RI WKH VWDII SRVLWRQV WKDWKDV QRWEHHQ UHSODFHG LV WKH' LUHFWRUR WKH $GYDQFHG,QWXP HQWDWRQ /DERUDWRU\ $,/ $ VHULHV RI VKRUWWMUP P HDVXUHV KDV VR IDUP DIQWDQLQG WKH ODE ZLWK IDFXOW VHUYLFH DQG VWXGHQW5 $V 7KLV LV QRWD SHUP DQHQWWRQWRQ DQG KDV UHVXOWG LQ DQ XQFHUWDLQ IXWUH IRUWKH ODE SRWHQWDO SXWWQJ IDFXOW DQG VWXGHQWWHDUFK LQ MHRSDUG\ QRWWXVWQ* HRVFLHQFHV GHSDUWP HQW DFURVV 8$) GHSHQG RQ WKH ODE $GGLWQDO FOMVHV DQG FUMFDOODE WDLQLQJ WKDVWKH $,/ ' LUHFWRU RI IHUHG WR IDFXOW DQG VWXGHQW DUH FXUUHQWO XQDYDLODEOH

&XUUHQWXQFHUWDLQWLHVSHFWREXGJHWHGXFWRQVKDVOPLWHGRXUDELOLWVWRSDUWLFLSDWHLQ
RSSRUWXQLWLHVWKDWHQKDQFHRXUFRP QHZ H[WHQGDOXQGLQJ VRXUFHVDWWKH* HRSK\VLFDO,QVWLWXWH

2 3325781,7,(6

) XQGLQJ VRXUFHV 5HFHQWXFFHVVLQREWDLQLQJ HYHQ PRUH[WHQGDOXQGLQJ E\ XQLWDWWKH* HRSK\VLFDO
,QVWLWXWH $(&$92 8$5& 35((9(176 KDVUHVXOWHGLQIXQGLQJ EHLQJ DYDLODEOHWR KLUH RQH QHZ
IDFXOW\P HPEHU » WP HLQWKH GHSDUWPHQW* HRSK\VLFV 6LPLODUVXFFHVVHVLQWKH IXWXUH ZRXOGP DNH
IXQGV DYDLODEOHIRUWKHUFXOWKLUV DQGIRUVXSSRUWQJ JUDGXDWH VWXGHQWVWKURXJK 5$V

2 QQQH FRXUVHV 7KH GHSDUWPHQWFRQWQXHVWR LQFUHDVH LWV RQQQH FRXUVH RIIHULQJV XS WR
XQGHUJUDGXDWH DQG JUDGXDWH FRXUVHV E\ IDOO * HRGHWF 0 HWKRGV %DVLQ$QDOVLV * HRORJLFDO
+DJDGV * HWUDEQGH).HS E

IRXQGDWRQ IRUWKLV RQOLQH FHUWLILFDWH SURJUDP 7KH HVWDEOLVKP HQW RI DQ RQOLQH *

h & Æ‰]š WŒ}PŒ u Z À

E^D ' }•] v •

‰ Œš o o	(Çîì	ñÇîì	óÇîì	óÇîì	õìíôrîìíõ Z	vìHñrîìíõ Z	vP
ŒšZ ^] v	ò	íò	íî	íì	ô	rîìXìì9	ïïXïì9
' }PŒ ‰ZÇ	íí	ó	ð	ô	ô	ìXìì9	rîóXïì9
/ WŒ u i}Œ r	ŒšZí^] ví	ì	ì	ì			ríììXìì9
/ WŒ u i}Œ r ' }PŒ ‰ZÇî	í	î	í			rñìXìì9	rñìXìì9
/ WŒ u i}Œ r ' }•] vð	ï	ð	í	í		ìXìì9	róñXìì9
^ ' }PŒ ‰ZÇ	íô	íï	íó	íð	íì		rîôXòì9	rððXðì9
^ ' }o}PÇ	îí	íÍîÎ	ñ	ñ	ð		rîìXìì9	rôíXìì9
^ ' }•] v	óì	óò	òî	óõ	òð		ríõXìì9	rôXòì9
D^ ' }o}PÇ	îñ	îò	îô	íõ	íó		ríìXñì9	rïîXìì9
D^ ' }‰ZÇ•] •	íî	íí	íÍîÎ	õ	ô		rííXíì9	rïïXïì9
D^ ' }•] v	ì	ì99 Tf 1ó7 0 0 rg BT 0 Tr /Font1ï2 14.299999 Tf 1.0 0 0 -1.0 362.75385 204.42578 Tm 0 0 Td (í)2Tj ET 0 0 0 rg BT 0 Tr /Font1 1 14.299999					
W, ' }o}PÇ	íí						

&zíõ ^ o Œ] • v v (]š
E^D ' }•] v Z• •šŒ] š ¨ìXì
hvŒ •šŒ]¨íšUòòôUï
d}š o ¨íUòòôUï

&zíõ /v•šŒµ š]}v o Æ‰
E^D ' }•] v Z• •šŒ] š ¨ìX
hvŒ •šŒ]¨šUôôðU
d}š o ¨íUôôðU