College of Science Curriculum Committee

Minutes

January 16, 2020

Hickory 254-H

3:30 pm – 5:00 pm

**Voting**:

☐ Amy Petros ☐ David Hoeinghaus ☐ Kris Sherman

☐ Nirmala Naresh ☐ Duncan Weathers

**Non-Voting**:

☐ Chelsea Heidbrink ☐ John Quintanilla ☐ Guido Verbeck

**Visiting:**

☐ Michael Monticino ☐ Vincent Lopes ☐ Rebecca Weber

☐ Jennifer McDonald ☐ Brian Fortney ☐ Krista Hines

☐ Heather Tunnel ☐ William Cherry ☐ Julie Leventhal

☐ Miriam Freeman

1. Welcome
2. Discussion with UUCC Co-chairs
3. Notes from UCC / Graduate Council
4. Undergraduate Program (for 2021-22 catalog)
   1. Department of Chemistry
5. **CHEM 5200 Physical Chemistry APPROVED**

[**https://unt.curriculog.com/proposal:7489/form**](https://unt.curriculog.com/proposal:7489/form)

**Proposal: 2021-22 – Change in Existing Course (NOT Core Curriculum)**

*Justification: Removed a typo from the catalog description*

* 1. Department of IPACS (Interdisciplinary Program in Analytical and Computational Science)

1. **IPAC 4130 Data Analytics and Computational Statistics 1 APPROVED**

[**https://unt.curriculog.com/proposal:7590/form**](https://unt.curriculog.com/proposal:7590/form)

**Proposal: 2021-22 New Course**

*Justification: Training and experience in data analytics is becoming increasingly important in nearly any career. This course is part of a collection courses that undergraduate students from any major may use to complete an undergraduate certificate in Data Analytics. The course is an undergraduate version of an existing (face-to-face and online) ADTA course. An undergraduate student may take this course at the undergraduate level for completion of a Data Analytics undergraduate certificate or take the corresponding graduate level course as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Thus, this course provides students not wishing to pursue a graduate degree the opportunity to layer a career-enhancing certificate onto their undergraduate degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects*

*The course focuses on the underlying analytics details of the techniques covered as well as the science and industry applications of the methods with big data, distinguishing it from nominally related courses in other departments*

ii. **IPAC 4230 Data Analytics and Computational Statistics 2 APPROVED**

[**https://unt.curriculog.com/proposal:7596/form**](https://unt.curriculog.com/proposal:7596/form)

**Proposal: 2021-22 New Course**

*Justification: Training and experience in data analytics are becoming increasingly important in nearly any career. This certificate provides undergraduate students from any major the opportunity layer a career-enhancing certificate onto their undergraduate degree. Courses comprising the certificate provide students an understanding of the underlying fundamental concepts of contemporary data analytics methods, as well as experience in obtaining, wrangling and learning from big data through machine learning and deep learning tools. Courses emphasize applications of theory and tools to solving real-world problems in science and industry.*

*The courses in the certificate are undergraduate versions of an existing (face-to-face and online) ADTA courses. An undergraduate student may opt take the courses at the undergraduate level for completion of the Undergraduate Certificate in Data Analytics or take the corresponding graduate level courses as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects.*

iii. **IPAC 4240 Principles of Data Structures, Harvesting and Wrangling APPROVED**

[**https://unt.curriculog.com/proposal:7598/form**](https://unt.curriculog.com/proposal:7598/form)

**Proposal: 2021-22 New Course**

*Justification: Training and experience in data analytics is becoming increasingly important in nearly any career. This course is part of a collection courses that undergraduate students from any major may use to complete an undergraduate certificate in Data Analytics. The course is an undergraduate version of an existing (face-to-face and online) ADTA course. An undergraduate student may take this course at the undergraduate level for completion of a Data Analytics undergraduate certificate or take the corresponding graduate level course as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Thus, this course provides students not wishing to pursue a graduate degree the opportunity to layer a career-enhancing certificate onto their undergraduate degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects*

*The course focuses on the underlying analytics details of the techniques covered as well as the science and industry applications of the methods with big data, distinguishing it from nominally related courses in other departments*.

iv. **IPAC 4250 Principles of Data Visualization for Large Data APPROVED**

[**https://unt.curriculog.com/proposal:7601/form**](https://unt.curriculog.com/proposal:7601/form)

**Proposal: 2021-22 New Course**

*Justification: Training and experience in data analytics is becoming increasingly important in nearly any career. This course is part of a collection courses that undergraduate students from any major may use to complete an undergraduate certificate in Data Analytics. The course is an undergraduate version of an existing (face-to-face and online) ADTA course. An undergraduate student may take this course at the undergraduate level for completion of a Data Analytics undergraduate certificate or take the corresponding graduate level course as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Thus, this* *course provides students not wishing to pursue a graduate degree the opportunity to layer a career-enhancing certificate onto their undergraduate degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects*

*The course focuses on the underlying analytic results that the visualizations are intended to communicate as well as the science and industry applications of the methods with big data, distinguishing it from nominally related courses in other departments.*

v. **IPAC 4340 Methods for Discovery and Learning from Data APPROVED**

[**https://unt.curriculog.com/proposal:7600/form**](https://unt.curriculog.com/proposal:7600/form)

**Proposal: 2021-22 New Course**

*Justification: Training and experience in data analytics are becoming increasingly important in nearly any career. This certificate provides undergraduate students from any major the opportunity layer a career-enhancing certificate onto their undergraduate degree. Courses comprising the certificate provide students an understanding of the underlying fundamental concepts of contemporary data analytics methods, as well as experience in obtaining, wrangling and learning from big data through machine learning and deep learning tools. Courses emphasize applications of theory and tools to solving real-world problems in science and industry.*

*The courses in the certificate are undergraduate versions of an existing (face-to-face and online) ADTA courses. An undergraduate student may opt take the courses at the undergraduate level for completion of the Undergraduate Certificate in Data Analytics or take the corresponding graduate level courses as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects.*

vi. **IPAC 4980 Data Analytics and Computational Statistics 1 APPROVED**

[**https://unt.curriculog.com/proposal:7595/form**](https://unt.curriculog.com/proposal:7595/form)

**Proposal: 2021-22 New Course**

*Justification: This course is the Experimental Course equivalent of the concurrently proposed IPAC XXX course, providing an option to students wishing to take the course content before the IPAC 4130 course appears in the UNT catalog.*

*Training and experience in data analytics is becoming increasingly important in nearly any career. This course is part of a collection courses that undergraduate students from any major may use to complete an undergraduate certificate in Data Analytics. The course is an undergraduate version of an existing (face-to-face and online) ADTA course. An undergraduate student may take this course at the undergraduate level for completion of a Data Analytics undergraduate certificate or take the corresponding graduate level course as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Thus, this course provides students not wishing to pursue a graduate degree the opportunity to layer a career-enhancing certificate onto their undergraduate degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects.*

*The course focuses on the underlying analytics details of the techniques covered as well as the science and industry applications of the methods with big data, distinguishing it from nominally related courses in other departments.*

vii. **IPAC 4980 Data Analytics and Computational Statistics 2 APPROVED**

[**https://unt.curriculog.com/proposal:7597/form**](https://unt.curriculog.com/proposal:7597/form)

**Proposal: 2021-22 New Course**

*Justification: This course is the Experimental Course equivalent of the concurrently proposed IPAC XXX course, providing an option to students wishing to take the course content before the IPAC 4230 course appears in the UNT catalog.*

*Training and experience in data analytics is becoming increasingly important in nearly any career. This course is part of a collection courses that undergraduate students from any major may use to complete an undergraduate certificate in Data Analytics. The course is an undergraduate version of an existing (face-to-face and online) ADTA course. An undergraduate student may take this course at the undergraduate level for completion of a Data Analytics undergraduate certificate or take the corresponding graduate level course as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Thus, this course provides students not wishing to pursue a graduate degree the opportunity to layer a career-enhancing certificate onto their undergraduate degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects*

*The course focuses on the underlying analytics details of the techniques covered as well as the science and industry applications of the methods with big data, distinguishing it from nominally related courses in other departments.*

*viii.* **IPAC 4980 Methods for Discovery and Learning from Data APPROVED**

[**https://unt.curriculog.com/proposal:7585/form**](https://unt.curriculog.com/proposal:7585/form)

**Proposal: 2021-22 New Course**

*Justification: This course is the Experimental Course equivalent of the concurrently proposed IPAC 4340 course, providing an option to students wishing to take the course content before the IPAC 4340 course appears in the UNT catalog.*

*Training and experience in data analytics is becoming increasingly important in nearly any career. This course is part of a collection courses that undergraduate students from any major may use to complete an undergraduate certificate in Data Analytics. The course is an undergraduate version of an existing (face-to-face and online) ADTA course. An undergraduate student may take this course at the undergraduate level for completion of a Data Analytics undergraduate certificate or take the corresponding graduate level course as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Thus, this course provides students not wishing to pursue a graduate degree the opportunity to layer a career-enhancing certificate onto their undergraduate degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects*

*The course focuses on the underlying analytics details of the techniques covered as well as the science and industry applications of the methods with big data, distinguishing it from nominally related courses in other departments.*

ix. **IPAC 4980 Principles of Data Structures, Harvesting and Wrangling APPROVED**

[**https://unt.curriculog.com/proposal:7599/form**](https://unt.curriculog.com/proposal:7599/form)

**Proposal: 2021-22 New Course**

*Justification: This course is the Experimental Course equivalent of the concurrently proposed IPAC 4240 course, providing an option to students wishing to take the course content before the IPAC 4240 course appears in the UNT catalog.*

*Training and experience in data analytics is becoming increasingly important in nearly any career. This course is part of a collection courses that undergraduate students from any major may use to complete an undergraduate certificate in Data Analytics. The course is an undergraduate version of an existing (face-to-face and online) ADTA course. An undergraduate student may take this course at the undergraduate level for completion of a Data Analytics undergraduate certificate or take the corresponding graduate level course as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Thus, this course provides students not wishing to pursue a graduate degree the opportunity to layer a career-enhancing certificate onto their undergraduate degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects*

*The course focuses on the underlying analytics details of the techniques covered as well as the science and industry applications of the methods with big data, distinguishing it from nominally related courses in other departments.*

x. **IPAC 4980 Principles of Data Visualization for Large Data APPROVED**

[**https://unt.curriculog.com/proposal:7602/form**](https://unt.curriculog.com/proposal:7602/form)

**Proposal: 2021-22 New Course**

*Justification: This course is the Experimental Course equivalent of the concurrently proposed IPAC 4250 course, providing an option to students wishing to take the course content before the IPAC 4250 course appears in the UNT catalog.*

*Training and experience in data analytics is becoming increasingly important in nearly any career. This course is part of a collection courses that undergraduate students from any major may use to complete an undergraduate certificate in Data Analytics. The course is an undergraduate version of an existing (face-to-face and online) ADTA course. An undergraduate student may take this course at the undergraduate level for completion of a Data Analytics undergraduate certificate or take the corresponding graduate level course as part of a Grad-Track pathway for the MS Advanced Data Analytics degree. Thus, this course provides students not wishing to pursue a graduate degree the opportunity to layer a career-enhancing certificate onto their undergraduate degree. Differences in undergraduate and graduate versions include the level of sophistication and complexity expected in course assignments/projects*

*The course focuses on the underlying analytic results that the visualizations are intended to communicate as well as the science and industry applications of the methods with big data, distinguishing it from nominally related courses in other departments*

* 1. Department of Physics

1. **PHYS 1520 General Physics II with Calculus APPROVED**

[**https://unt.curriculog.com/proposal:7528/form**](https://unt.curriculog.com/proposal:7528/form)

**Proposal: Change in Existing Course (Core Curriculum)**

*Justification: We believe that our students will be better prepared and as a result more successful in PHYS 1520 by requiring a C or better in PHYS 1510 and a C or better in MATH 1710 (calculus 1).*

ii. **PHYS 1710 Mechanics APPROVED**

[**https://unt.curriculog.com/proposal:7493/form**](https://unt.curriculog.com/proposal:7493/form)

**Proposal: Change in Existing Course (Core Curriculum)**

*Justification: We believe that our students will be better prepared and as a result more successful in PHYS 1710 by requiring a C or better in calculus 1 (MATH 1710).*

iii. **PHYS 2220 Electricity and Magnetism APPROVED**

[**https://unt.curriculog.com/proposal:7522/form**](https://unt.curriculog.com/proposal:7522/form)

**Proposal: Change in Existing Course (Core Curriculum)**

*Justification: We believe that our students will be better prepared and as a result more successful in PHYS 2220 by requiring a C or better in calculus 2 (MATH 1720), and a grade of C or better in either PHYS 1710 or PHYS 1420*.

* 1. Department of Teach North Texas

1. **TNTX 5150 – Conceptual Geometry TABLED**

[**https://unt.curriculog.com/proposal:6776/form**](https://unt.curriculog.com/proposal:6776/form)

**Proposal: 2020-21 New Course**

*Justification: Verbiage; Revision to content course design with creating graduate-level course; Add course as a degree requirement to certification degree plans in Mathematics.*

ii. **TNTX 5200 – Conceptual Science APPROVED**

[**https://unt.curriculog.com/proposal:6715/form**](https://unt.curriculog.com/proposal:6715/form)

**Proposal: 2020-21 New Course**

*Justification: Verbiage; Revision to content course design with creating graduate-level course; Add course as a degree requirement to certification degree plans in Biology, Chemistry, Biochemistry, Physics.*

1. Approve the minutes

VI. Discussion items for the future

A. Internship 4890