

# ภาคผนวกตัวบ่งชี้ที่ 1 การบริหารจัดการหลักสูตรตามประกาศกระทรวงศึกษาธิการ เรื่อง เกณฑ์มาตรฐานหลักสูตรระดับปริญญาตรีและบัณฑิตศึกษา

หลักสูตรวิทยาศาสตรบัณฑิต สาขาวิชาเทคโนโลยีการบรรจุ

หลักสูตรปรับปรุง พ.ศ.2561

คณะอุตสาหกรรมเกษตร

มหาวิทยาลัยเชียงใหม่

ประจำปีการศึกษา 2563 วันที่รายงาน 31 กรกฎาคม 2564



## ข้อมูลหลักสูตร

- สภามหาวิทยาลัยอนุมัติหลักสูตรฯ เมื่อวันที่ 30 กันยายน 2560
- สกอ. รับทราบหลักสูตรฯ เมื่อวันที่ 8 กุมภาพันธ์ 2561
- มีผลบังคับใช้หลักสูตรตั้งแต่ภาคการเรียนที่ 1 ปีการศึกษา 2560
- มีการเปลี่ยนแปลงอาจารย์ผู้รับผิดชอบหลักสูตรจากที่ระบุไว้ใน มคอ 2 โดยผ่านการอนุมัติโดยสภามหาวิทยาลัยแล้วในคราวประชุมครั้งที่ 12/2562 เมื่อวันที่ 20 ธันวาคม 2562
- ได้มีการดำเนินการปรับปรุงหลักสูตรให้เป็นปัจจุบันหรือเปิดหลักสูตรใหม่ ให้สอดคล้องตามเกณฑ์มาตรฐานหลักสูตร เมื่อปี พ.ศ. 2560 ซึ่งได้ผ่านความเห็นชอบจากที่ประชุมคณะกรรมการบริหารประจำคณะอุตสาหกรรมเกษตร ในคราวประชุมครั้งที่ 5/2560 เมื่อวันที่ 23 พฤษภาคม 2560 สภาวิชาการให้ความเห็นชอบหลักสูตร ในการประชุมครั้งที่ 10/2560 เมื่อวันที่ 5 กันยายน 2560 สภามหาวิทยาลัยอนุมัติหลักสูตร ในการประชุมครั้งที่ 9/2560 เมื่อวันที่ 30 กันยายน 2560 และ สกอ. ได้รับทราบหลักสูตรปรับปรุงหรือหลักสูตรใหม่ดังกล่าว เมื่อวันที่ 8 กุมภาพันธ์ 2561
- หลักสูตรปรับปรุง พ.ศ. 2560 หรือหลักสูตรใหม่ พ.ศ. ....-..... นี้ ได้เปิดรับนักศึกษาปีการศึกษา 2560 เปิดสอนโดยใช้หลักสูตรดังกล่าวมาแล้ว 3 ปี มีระยะเวลาการจัดการศึกษาของหลักสูตร 4 ปี และมีการปรับปรุงหลักสูตรสม่ำเสมอตามรอบระยะเวลาของหลักสูตรทุกรอบ 5 ปี โดยจะครบรอบการปรับปรุงหลักสูตรครั้งต่อไปในปี พ.ศ. 2565

## ผลงานทางวิชาการของอาจารย์

### 1. ผลงานทางวิชาการของอาจารย์ประจำหลักสูตร/อาจารย์ผู้รับผิดชอบหลักสูตร/อาจารย์ผู้สอน ประจำปี 2559-2563

#### 1) ผู้ช่วยศาสตราจารย์ ดร.สุรพัศ คำไทย\*\*

##### ผลงานตีพิมพ์ในวารสารทางวิชาการระดับนานาชาติ (ทุกผลงานเป็นงานวิจัย)

1. Kanjapach Boontranurak, Patcharin Raviyan, Jiraphat Panya, Suphanida Mantana and **Suthaphat Kamthai**. 2020. “Preparation of Film Incorporating Spray-dried Red Cabbage Anthocyanin Encapsulated with Bagasse Carboxymethyl Cellulose”. Chiang Mai J. Sci. 2020; 4x(x) : 1-16. In press (Accepted)
2. Boontranurak, K., Raviyan, P., Panya, J., Mantana, **S., Kamthai, S.** (2020) Preparation of film incorporating spray-dried red cabbage anthocyanin encapsulated with bagasse carboxymethyl cellulose. Chiang Mai Journal of Science Volume 47, Issue 5, September 2020, Pages 926-942
3. **Suthaphat Kamthai** and Rathanawan Magaraphan. 2018. “Development of an active polylactic acid (PLA) packaging film by adding bleached bagasse carboxymethyl cellulose (CMCB) for mango storage life extension”. Packaging Technology and Science. 32:103–116.
4. Anong Jainan, Aree Deenu, and **Suthaphat Kamthai**. 2018. “Biopolymer Film Based on Rice Straw Carboxymethyl Cellulose (CMCr) and Chiang Mai University (CMU) Purple Rice Carboxymethyl Flour (CMF)”. Chiang Mai J. Sci. 2018; 45(5) : 2140-2151
5. **Suthaphat Kamthai** and Rathanawan Magaraphan. 2017. “Mechanical and barrier properties of spray dried carboxymethyl cellulose (CMC) film from bleached bagasse pulp”. Industrial Crops & Products. 109. 753-761.
6. Anong Jainan, Aree Deenu, Srisuwan Naruenartwongsakul, Patcharin Rayiyan, Jurmkwan Sangsuwan and **Suthaphat Kamthai**. 2017. “Preliminary Study of Alkaline Pretreatment Effect on Carboxymethyl Flour (CMF) from Chiang Mai University (CMU) Purple Rice Properties”. Chiang Mai J. Sci. 2017; 44(4) : 1624-1632.

### ผลงานตีพิมพ์ในวารสารทางวิชาการระดับชาติ (ทุกผลงานเป็นงานวิจัย)

1. Praewdao Sopa, Monthinee Kantadech, Kanokkarn Pannasai, Wannika Khomwongsawat and **Suthaphat Kamthai**. 2017. “Efficiency of Ethylene Adsorbent Coated Paper for Extending Storage Life of Num Dok Mai Mango”. Agricultural Sci. J. 48:3 (Suppl.):339-342
2. Nittaya Kasakun, Patchareewan Saobuntan, Wit Watcharawipa, Nannaphat Kaewsangiem and **Suthaphat Kamthai**. 2017 “Efficiency of Packaging Bag for Extending Storage-life of Fresh-cut Lettuce (*Lactuca sativa* L.)”. Agricultural Sci. J. 48:3 (Suppl.):375—380
3. Krittaya Srimanee, Katawut Sukorrphas, **Suthaphat Kamthai**, 2016. “Efficiency of Hexanal Coated Paper for Banana Anthracnose and Crown Rot Fungi Inhibition” Agricultural Sci. J. 47: 3 (Suppl.) 79-82
4. Nuttawadee Jinaphan, Jurmkwan Sangsuwan, Sutthira Sutthasupa and **Suthaphat Kamthai**. 2016. “Effect of Rice Straw Carboxymethyl Cellulose Film Blended with Polyethylene Glycol on “Nam Dok Mai” Mangoes Storage Life”. Agricultural Sci. J. 47: 3 (Suppl.) 357-360. (Funding by: National Research Council of Thailand) : Co-project

### ผลงานอื่นๆ

#### สิทธิบัตร

1. สิทธิบัตร เรื่อง กระบวนการผลิตแป้งคาร์บอกซีเมธิลจากข้าวเก่า หมายเลขคำขอสิทธิบัตรเลขที่ 1601005628 (2559)
2. สิทธิบัตร เรื่อง กระบวนการผลิตผงสีคาร์บอกซีเมธิลเซลลูโลสโดยเทคนิคแอนแคปซูล์และอบลมร้อนแบบพ่นฝอย หมายเลขคำขอสิทธิบัตรเลขที่ 1601007890 (2559)

#### อนุสิทธิบัตร

1. อนุสิทธิบัตรเรื่อง แถบชี้วัดสำหรับติดตามคุณภาพของผลไม้ในบรรจุภัณฑ์ตัดแปลงบรรยากาศ หมายเลขอนุสิทธิบัตรเลขที่ 1603000913 (2559)

### 2) ผู้ช่วยศาสตราจารย์ ดร.ลินดา ธีรภัทรพันธ์\*\*

#### ผลงานตีพิมพ์ในวารสารทางวิชาการระดับนานาชาติ (ทุกผลงานเป็นงานวิจัย)

1. N. Petchana, N. Phoopiam, L. Thiraphattaraphun, Natural pH Indicator from Tapioca Starch/Curcumin Film. AIP Conference Proceedings, 2020, 2279, p: 070002-1-070002-6.

2. R. Bintiina, P. Puntawongb, **L. Thiraphattaraphun.**, Properties of Potato Flour-Based Loose-Fill Foams. Materials Today: Proceedings. Materials Today: Proceedings, 2019, vol. 7 part 4, p: 2078-2082.

**ผลงานตีพิมพ์ในรายงานสืบเนื่องจากการประชุมวิชาการระดับนานาชาติ (ทุกผลงานเป็นงานวิจัย)**

1. Pawitra Thongsuk, Maliwan Ruanka, **Linda Thiraphattaraphun.** (2019). Properties of Rice Husk Silica/Rice Starch Composite Films. Proceedings of the Pure and Applied Chemistry International Conference 2019 (PACCON2019). 1st Edition June 2019. P.131-135
2. Kamonphop Saengpanya, Wasakorn Nopotha, **Linda Thiraphattaraphun.** (2019) Temperature Indicator Based on Paper Coated with Anthocyanins Extracted from Red Cabbage. Proceedings of 8th International IUPAC Conference on Green Chemistry. 1st Edition May 1, 2019. ISBN (E-book) 978-616-93355-0-4, 9-14 September 2018, p: 34-38.
3. Nisa Promsen, Suparada Tagan and **Linda Thiraphattaraphun.** (2018). Starch Foams Based on Rice Starch/Rice Straw Fiber. PCT-8: The International Polymer Conference of Thailand Proceedings Book, June 14th-15th 2018, Amari Watergate Bangkok Hotel, Bangkok, Thailand. p: 116-120.

**การนำเสนอผลงานในที่ประชุมวิชาการระดับนานาชาติ (ทุกผลงานเป็นงานวิจัย)**

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2. Natchaporn Petchana, Nattreya Phoopiam, **Linda Thiraphattaraphun.** Natural pH Indicator from Tapioca Starch/Curcumin Film. The Second Materials Research Society of Thailand International Conference (2nd MRS Thailand International Conference) 10-12 July 2019 The Zign Hotel, Pattaya, Thailand. (Poster Presentation)
3. Kamonphop Saengpanya, Wasakorn Nopotha, **Linda Thiraphattaraphun.** Temperature Indicator Based on Paper Coated with Anthocyanins Extracted from Red Cabbage. 9 - 14 September 2018, Shangri-La Hotel, Bangkok, Thailand. (Poster Presentation)

4. Nisa Promsen, Suparada Tagan and **Linda Thiraphattaraphun**. Starch Foams Based on Rice Starch/Rice Straw Fiber. PCT-8:, June 14th-15th 2018, Amari Watergate Bangkok Hotel, Bangkok, Thailand. (Poster Presentation)
5. Bintiina, R., Puntawongb, P., and **Thiraphattaraphun, L.** Properties of Potato Flour-Based Loose-Fill Foams. The First Materials Research Society of Thailand International Conference (1st MRS Thailand International Conference), October 31 – November 3, 2017, The Empress Convention Center, Chiang Mai, Thailand. (Poster Presentation)

### 3) ผู้ช่วยศาสตราจารย์ ดร.กิตติศักดิ์ จันทนสกุลวงศ์\*\*

ผลงานตีพิมพ์ในวารสารทางวิชาการระดับนานาชาติ*(ทุกผลงานเป็นงานวิจัย)*

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2. Chaisuwan, W., **Jantasakulwong, K.**, Wangtueai, S., Phimolsiripol, Y., Chaiyaso, T., Techapun, C., Phongthai, S., You, S.G., Regenstein, J.M. and Seesuriyachan, P. 2020. Microbial exopolysaccharides for immune enhancement: Fermentation, modifications and bioactivities. Food Bioscience. Volume 35: 100564. June 2020 <https://doi.org/10.1016/j.fbio.2020.100564>. (IF2020=3.22)
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4. Wongkaew, M., Sommano, S.R., Tangpao, T. Rachtanapun, P., **Jantasakulwong, K.** (2020) Mango peel pectin by microwave-assisted extraction and its use as fat replacement in dried chinese sausage. Foods Volume 9, Issue 4, Article number 450 [doi.org/10.3390/foods9040450](https://doi.org/10.3390/foods9040450). (IF2020=4.092)
5. Surin, S., You, S.G., Seesuriyachan, P., Muangrat, R., Wangtueai, S., Režek Jambrak, A., Phongthai, S., **Jantasakulwong, K.**, Chaiyaso, T. and Phimolsiripol, Y. (2020) Optimization of ultrasonic-assisted extraction of polysaccharides from purple glutinous

- rice bran (*Oryza sativa* L.) and their antioxidant activities. *Scientific Reports* volume 10, Article number: 10410 (2020) Published: 26 June 2020 (IF2020=4.000)
6. Rungsiri Suriyatem, Nichaya Noikang, Tamolwan Kankam, **Kittisak Jantanasakulwong**, Noppol Leksawasdi, Yuthana Phimolsiripol, Chayatip Insomphun, Phisit Seesuriyachan, Thanongsak Chaiyaso, Pensak Jantrawut, Sarana Rose Sommano and Pornchai Rachtanapun\*. (2020) Physical Properties of Carboxymethyl Cellulose from Palm Bunch and Bagasse Agricultural Wastes: Effect of Delignification with Hydrogen Peroxide. *Polymers* 2020, 12, 1505; doi:10.3390/polym12071505 (IF2020=3.426)
  7. Araya Kodsangma, Nattagarn Homsaard, Sudarut Nadon, Pornchai Rachtanapun, Noppol Leksawasdi, Yuthana Phimolsiripol, Chayatip Insomphun, Phisit Seesuriyachan, Thanongsak Chaiyaso, Pensak Jantrawut, Nakin Inmutto, Toshiaki Ougizawa, **Kittisak Jantanasakulwong\*** (2020) Effect of sodium benzoate and chlorhexidine gluconate on a bio-thermoplastic elastomer made from thermoplastic starch-chitosan blended with epoxidized natural rubber. *Carbohydrate Polymers* Volume 242, 15 August 2020, 116421. doi.org/10.1016/j.carbpol.2020.116421
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  9. Chaiwong, N., Leelapornpisid, P. **Jantanasakulwong, K.** Rachtanapun, P., Seesuriyachan, P. Sakdatom, V., Leksawasdi, N. and Phimolsiripol, Y. (2020) Antioxidant and Moisturizing Properties of Carboxymethyl Chitosan with Different Molecular Weights. *Polymers* 2020, 12(7), 1445; <https://doi.org/10.3390/polym12071445> (IF2020=3.426)
  10. Saenjaiban, A., Singtisan, T., Suppakul, P., **Jantanasakulwong, K.** Punyodom, W., Rachtanapun, P. (2020) Novel color change film as a time–temperature indicator using polydiacetylene/silver nanoparticles embedded in carboxymethyl cellulose. *Polymer* Volume 12, Issue 10, October 2020, Article number 2306, Pages 1-14 (IF2020=3.426)
  11. Kamon Yakul Tanyawat Kaewsalud Charin Techapun Phisit Seesuriyachan **Kittisak Jantanasakulwong** Masanori Watanabe Shinji Takenaka Thanongsak Chaiyaso. (2020) Enzymatic valorization process of yellow cocoon waste for production of antioxidative

sericin and fibroin film. Journal of Chemical Technology & Biotechnology. doi.org/10.1002/jctb.6604 (IF2020=4.092)

12. Tanyawat Kaewsalud · Kamon Yakul · **Kittisak Jantanasakulwong** · Wanaporn Tapingkae · Masanori Watanabe Thanongsak Chaiyaso. (2020) Biochemical Characterization and Application of Thermostable-Alkaline Keratinase From *Bacillus halodurans* SW-X to Valorize Chicken Feather Wastes. Waste and Biomass Valorization. doi.org/10.1007/s12649-020-01287-9 (IF2020=2.3)
13. Wisetkomolmat, J., Suksathan, R., Puangpradab, R., Kunasakdakul, K., **Jantanasakulwong**, K., Rachtanapun, P., Sommano, S.R. (2020) Natural surfactant saponin from tissue of *litsea glutinosa* and its alternative sustainable production. Plants Volume 9, Issue 11, Article number 1521, Pages 1-15 doi: 10.3390/plants9111521. (IF2020=2.762)
14. Worrapat Chaisuwan, Apisit Manassa, Yuthana Phimolsiripol, **Kittisak Jantanasakulwong**, Thanongsak Chaiyaso, Wasu Pathom-aree, SangGuan You and Phisit Seesuriyachan. (2020) Integrated Ultrasonication and Microbubble-Assisted Enzymatic Synthesis of Fructooligosaccharides from Brown Sugar. Foods 2020, 9, 1833; doi:10.3390/foods9121833
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22. Juthamas Tantala, Wirongrong Tongdeesoontorn, Chitsiri Rachtanapun, **Kittisak Jantanasakulwong** and Pornchai Rachtanapun (2019) Moisture Sorption Isotherms and Prediction Models of Carboxymethyl Chitosan Films from Different Sources with Various Plasticizers, *Advances in Materials and Engineering*, Volume 2019, Article ID 4082439, 18 page. Published online: 9 January 2019, <https://doi.org/10.1155/2019/4082439>
23. **Jantanasakulwong, K.**\* Wongsuriyasak, S., Rachtanapun, P., Seesuriyachan, P., Chaiyaso, T. Leksawasdi, N., Techapun, C. Mechanical properties improvement of thermoplastic corn starch and polyethylene-grafted-maleic anhydride blending by Na<sup>+</sup> ions neutralization of carboxymethyl cellulose. *International Journal of Biological Macromolecules* 120 (2018) 297–301.
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#### 8) ผู้ช่วยศาสตราจารย์ ดร.สุทธิรา สุทธสุภา

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ผลงานตีพิมพ์ในวารสารทางวิชาการ

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การนำเสนอผลงานในที่ประชุมวิชาการ

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ผลงานอื่นๆ

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