



# 湖南商务职业技术学院

*Hunan Vocational College of Commerce*

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2020 级专业人才培养方案制订与审核表

|      |          |
|------|----------|
| 专业名称 | 人工智能技术服务 |
| 专业代码 | 610217   |

专业建设委  
人工智能技术服务专业建设委员会按照教育部、  
省教育厅相关文件精神，经会议研讨后，由专业负责  
人组织专业骨干教师团队起草制定本人才培养方案。



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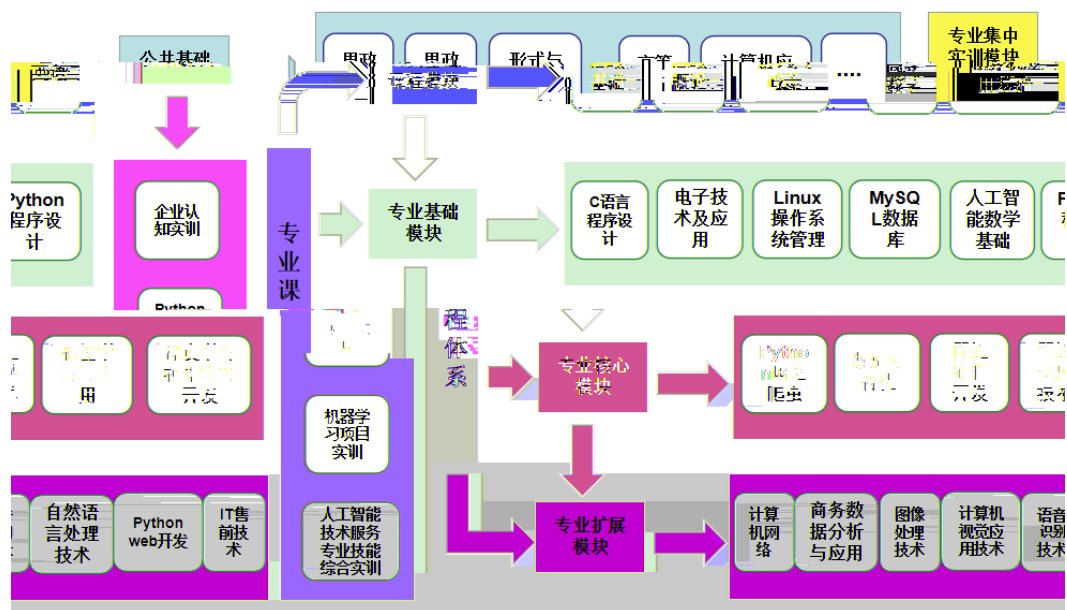
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Python

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Python

Pandas

NumPy

Matplotlib  
scikit-learn

Numpy

Matplotlib

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scikit-learn

numpy pandas

dataframe

Numpy

Pandas

DataFrame

Matplotlib



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Python

HTTP

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Cooki e

urll i b3

Requests

HTTP

Chrome

Xpath

Beauti ful Soup

JSON

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ARM

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STM32

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Python

Python  
NumPy pandas pandas  
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API Python PIL TensorFlow  
API API

TensorFlow

SoftMax

TensorBoard

TensorBoard













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## 移动互联通信设备、多媒体、网络、空间 等信息化手段实施教学

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|  | 22 |    |    |    |    |    |    |     |
|  | 23 |    |    |    |    |    |    |     |
|  | 24 |    |    |    |    |    |    |     |
|  | 25 |    |    |    |    |    |    |     |
|  | 26 |    |    |    |    |    |    |     |
|  | 27 |    |    |    |    |    |    |     |
|  |    | 18 | 17 | 18 | 18 | 11 | 0  | 82  |
|  |    | 2  | 0  | 0  | 0  | 0  | 0  | 2   |
|  |    | 0  | 1  | 1  | 1  | 3  | 0  | 6   |
|  |    | 0  | 0  | 0  | 0  | 9  | 15 | 24  |
|  |    | 1  | 1  | 1  | 1  | 1  | 1  | 6   |
|  |    | 21 | 19 | 20 | 20 | 24 | 16 | 120 |
|  |    | 5  | 7  | 6  | 7  | 0  |    | 25  |
|  |    | 26 | 26 | 26 | 27 | 24 | 16 | 145 |
|  |    |    |    |    |    |    |    |     |

|    |  |         |   |             |            | / / /      |            |           |           |          |          |          |          |    |     |   |
|----|--|---------|---|-------------|------------|------------|------------|-----------|-----------|----------|----------|----------|----------|----|-----|---|
|    |  |         |   |             |            |            |            |           | 1         | 2        | 3        |          |          | 4  | 5   | 6 |
|    |  |         |   |             |            |            |            |           | 18        | 17       | 18       |          |          | 18 | 11  | 0 |
| 1  |  | 0601025 | A | 3.0         | 48         | 48         |            | 3         |           |          |          |          |          | 1  |     |   |
| 2  |  | 0601024 | A | 3.0         | 48         | 48         |            |           | 4*12      |          |          |          |          | 2  |     |   |
| 3  |  | 0601046 | C | 1.0         | 16         |            | 16         |           | 4*4       |          |          |          |          | 2  |     |   |
| 4  |  | 0601028 | A | 1.0         | 40         | 40         |            | 2*4       | 2*4       | 2*4      | 2*4      | 2*4      |          | 5  |     |   |
| 5  |  | 0801001 | C | 2.0         | 112        |            | 112        | 2         |           |          |          |          |          |    |     |   |
| 6  |  | 0801215 | A | 2.0         | 36         | 36         |            |           |           |          | 2        |          |          | 4  |     |   |
| 7  |  | 0603001 | B | 2.0         | 32         | 4          | 28         | 2*16      |           |          |          |          |          | 1  |     |   |
| 8  |  | 0603002 | B | 2.0         | 32         | 4          | 28         |           | 2*16      |          |          |          |          | 2  |     |   |
| 9  |  | 0603003 | B | 2.0         | 32         | 4          | 28         |           |           | 1        |          |          |          | 3  |     |   |
| 10 |  | 0603004 | B | 1.0         | 16         | 4          | 12         |           |           |          | 1*16     |          |          | 4  |     |   |
| 11 |  | 0601039 | A | 2.0         | 32         | 32         |            |           |           |          | 2*16     |          |          | 4  |     |   |
| 12 |  | 0601070 | A | 1.0         | 16         | 16         |            | 2*8       |           |          |          |          |          | 1  |     |   |
| 13 |  | 0601071 | A | 1.0         | 16         | 16         |            |           |           |          | 2*8      |          |          | 4  |     |   |
| 14 |  | 0801080 | A | 2.0         | 32         | 32         |            |           | 2*8       |          |          |          |          | 2  |     |   |
| 15 |  | 0801216 | A | 1.0         | 16         | 16         |            |           | 2*8       |          |          |          |          | 2  |     |   |
| 16 |  | 0801216 | C | 1.0         | 28         |            | 28         |           |           |          |          |          |          | 5  |     |   |
|    |  |         |   | 27.0        | 552        | 300        | 252        | 5         | 6         | 2        | 6        | 0        |          |    |     |   |
| 17 |  | 0601072 | A | 1.0         | 16         | 16         |            |           | 1         |          |          |          |          | 2  |     |   |
| 18 |  | 0601069 | A | 1.0         | 16         | 16         |            |           | 1         |          |          |          |          | 2  |     |   |
| 19 |  | 0201241 | A | 2.0         | 32         | 32         |            | 2         |           |          |          |          |          | 1  |     |   |
| 20 |  | 0201232 | A | 1.0         | 16         | 16         |            | 1         |           |          |          |          |          | 1  |     |   |
| 21 |  | 0201039 | A | 3.0         | 48         | 48         |            | 3         |           |          |          |          |          | 1  |     |   |
| 22 |  | 0201039 | A | 3.0         | 48         | 48         |            | 3         |           |          |          |          |          | 1  |     |   |
| 23 |  | 0203001 | B | 2.0         | 32         | 24         | 8          | 2         |           |          |          |          |          | 1  |     |   |
| 24 |  | 0203002 | B | 2.0         | 32         | 24         | 8          |           | 2         |          |          |          |          | 2  |     |   |
| 25 |  | 0602013 | A | 3.0         | 48         | 48         |            | 3         |           |          |          |          |          | 1  |     |   |
| 26 |  | 0602001 | A | 3.0         | 48         | 48         |            | 3         |           |          |          |          |          | 1  |     |   |
| 27 |  | 0602023 | A | 3.0         | 48         | 48         |            | 3         |           |          |          |          |          | 1  |     |   |
| 28 |  | 0401001 | B | 2.5         | 40         | 20         | 20         |           | 3         |          |          |          |          | 2  | 2.5 |   |
| 29 |  | 0401129 | B | 2.5         | 40         | 20         | 20         |           | 3         |          |          |          |          | 2  |     |   |
| 30 |  | 0801080 | B | 1.0         | 16         | 8          | 8          | 2*4       | 2*4       |          |          |          |          | 2  | 1   |   |
| 31 |  | 0801217 | A | 1.0         | 16         | 16         |            |           |           |          |          |          |          | 2  |     |   |
|    |  |         |   | <b>14.5</b> | <b>232</b> | <b>188</b> | <b>44</b>  | <b>8</b>  | <b>6</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> |    |     |   |
| 1  |  |         |   |             |            |            |            |           |           |          |          |          |          |    |     |   |
| 2  |  |         |   |             |            |            |            |           |           |          |          |          |          |    |     |   |
|    |  |         |   | <b>4.0</b>  | <b>64</b>  | <b>64</b>  |            | 0         | 0         | 0        | 0        | 0        | 0        |    |     |   |
|    |  |         |   | <b>45.5</b> | <b>848</b> | <b>552</b> | <b>296</b> | <b>13</b> | <b>12</b> | <b>2</b> | <b>6</b> | <b>0</b> | <b>0</b> |    |     |   |



|  |   |  |         |   |             | / / / / / / |            |            |           |           |           |           |           |          |    |    |    |
|--|---|--|---------|---|-------------|-------------|------------|------------|-----------|-----------|-----------|-----------|-----------|----------|----|----|----|
|  |   |  |         |   |             |             |            |            |           |           |           |           |           |          |    |    |    |
|  |   |  |         |   |             | 1           | 2          | 3          | 4         | 5         | 6         |           |           |          | 18 | 17 | 18 |
|  | 1 |  | 0403002 | B | 4           | 64          | 16         | 48         | 4         |           |           |           |           |          | 1  |    |    |
|  | 2 |  | 0406314 | B | 6           | 96          | 32         | 64         | 6         |           |           |           |           |          | 1  |    |    |
|  | 3 |  | 0403110 | B | 4           | 64          | 16         | 48         |           | 4         |           |           |           |          | 2  |    |    |
|  | 4 |  |         | B | 4           | 64          | 32         | 32         |           | 4         |           |           |           |          | 2  |    |    |
|  | 5 |  |         | B | 4           | 64          | 32         | 32         |           | 4         |           |           |           |          |    | 2  |    |
|  | 6 |  |         | B | 4.5         | 72          | 24         | 48         |           |           | 6         |           |           |          | 3  |    |    |
|  |   |  |         |   | 26.5        | 424         | 152        | 272        | 10        | 12        | 6         | 0         | 0         | 0        |    |    |    |
|  | 1 |  |         | B | 4           | 64          | 16         | 48         |           |           | 4         |           |           |          | 2  |    |    |
|  | 2 |  |         | B | 5           | 80          | 20         | 60         |           |           | 6         |           |           |          | 3  |    |    |
|  | 3 |  |         | B | 5           | 80          | 20         | 60         |           |           |           | 6         |           |          | 4  |    |    |
|  | 4 |  |         | B | 4           | 64          | 16         | 48         |           |           |           |           | 6         |          | 5  |    |    |
|  | 5 |  |         | B | 5           | 80          | 20         | 60         |           |           |           | 6         |           |          | 4  |    |    |
|  | 6 |  |         | B | 4           | 64          | 16         | 48         |           |           |           |           | 6         |          | 5  |    |    |
|  |   |  |         |   | 27          | 432         | 108        | 324        | 0         | 0         | 10        | 12        | 12        | 0        |    |    |    |
|  |   |  |         |   | <b>53.5</b> | <b>856</b>  | <b>260</b> | <b>596</b> | <b>10</b> | <b>12</b> | <b>16</b> | <b>12</b> | <b>12</b> | <b>0</b> |    |    |    |

|   |  |         |   |    |      |    |      | / / |    | / / |    |      |     |   |
|---|--|---------|---|----|------|----|------|-----|----|-----|----|------|-----|---|
|   |  |         |   |    |      |    |      | 1   | 2  | 3   | 4  | 5    | 6   |   |
|   |  |         |   |    |      |    |      | 18  | 17 | 18  | 18 | 11   | 0   |   |
|   |  |         | B | 3  | 48   | 24 | 24   |     |    | 4   |    |      |     | 3 |
|   |  |         | B | 3  | 48   | 24 | 24   |     |    | 4   |    |      |     | 3 |
|   |  |         | B | 4  | 64   | 20 | 44   |     |    |     | 4  |      |     | 4 |
|   |  |         | B | 4  | 64   | 20 | 44   |     |    |     | 4  |      |     | 4 |
|   |  |         | B | 4  | 64   | 20 | 44   |     |    |     |    | 6    |     | 5 |
|   |  |         | B | 4  | 64   | 20 | 44   |     |    |     |    | 6    |     | 5 |
|   |  |         | B | 4  | 64   | 20 | 44   |     |    |     |    | 6    |     | 5 |
|   |  |         | B | 4  | 64   | 20 | 44   |     |    |     |    | 6    |     | 5 |
|   |  |         |   | 15 | 240  | 84 | 156  | 0   | 0  | 4   | 4  | 12   | 0   |   |
| 1 |  |         | C | 1  | 28   | 0  | 28   |     | 1  |     |    |      |     | 2 |
| 2 |  |         | C | 1  | 28   | 0  | 28   |     |    | 1   |    |      |     | 3 |
| 3 |  |         | C | 1  | 28   | 0  | 28   |     |    |     | 1  |      |     | 4 |
| 4 |  |         | C | 4  | 112  | 0  | 112  |     |    |     |    | 3    |     | 5 |
| 5 |  | 0801002 | C |    |      |    |      |     |    |     |    |      |     |   |
| 6 |  | 0102073 | C | 6  | 28   | 0  | 28   |     |    |     |    | 0.5  | 0.5 | 6 |
| 7 |  | 0801003 | C | 24 | 672  | 0  | 672  |     |    |     |    | 9    | 15  | 6 |
|   |  |         |   | 37 | 896  | 0  | 896  | 0   | 1  | 1   | 1  | 12.5 | 16  |   |
|   |  |         |   | 52 | 1136 | 84 | 1052 |     |    |     |    |      |     |   |

|  | 5  | 2 | 6  | 0 | 2  | 0 | 6  | 0 | 0  | 0    | 0 | 0    | 0     | 300  | 252  | 552 |
|--|----|---|----|---|----|---|----|---|----|------|---|------|-------|------|------|-----|
|  | 8  | 0 | 6  | 0 | 0  | 0 | 0  | 0 | 0  | 0    | 0 | 0    | 188   | 44   | 232  |     |
|  | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0 | 0  | 0    | 0 | 0    | 64    | 0    | 64   |     |
|  | 10 | 0 | 12 | 0 | 16 | 0 | 12 | 0 | 12 | 0    | 0 | 0    | 260   | 596  | 856  |     |
|  | 0  | 0 | 0  | 1 | 0  | 1 | 0  | 1 | 0  | 13   | 0 | 16   | 0     | 896  | 896  |     |
|  | 0  | 0 | 0  | 0 | 4  | 0 | 4  | 0 | 12 | 0    | 0 | 0    | 84    | 156  | 240  |     |
|  | 23 | 2 | 24 | 1 | 22 | 1 | 22 | 1 | 24 | 12.5 | 0 | 15.5 | 896   | 1944 | 2840 |     |
|  |    |   |    |   |    |   |    |   |    |      |   |      |       |      |      |     |
|  |    |   |    |   |    |   |    |   |    |      |   |      |       |      |      |     |
|  |    |   |    |   |    |   |    |   |    |      |   |      |       |      |      |     |
|  |    |   |    |   |    |   |    |   |    |      |   |      | 29.9% |      |      |     |
|  |    |   |    |   |    |   |    |   |    |      |   |      | 18.9% |      |      |     |
|  |    |   |    |   |    |   |    |   |    |      |   |      | 68.5% |      |      |     |
|  |    |   |    |   |    |   |    |   |    |      |   |      | 151.0 |      |      |     |





### 表六 课程教学进程安排表

| 学期 | 序号 | 课程名称             | 总学时            | 1  | 2  | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 备注 |     |  |
|----|----|------------------|----------------|----|----|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|--|
| 第  | 1  | 形势与政策（五）         | 8 hours        |    |    |   |   |   |   |   |   |   |    |    |    |    |    | ⊖  |    |    |    |    |    |    |    |     |  |
|    | 2  | 智能传感技术           | 64             | 6  | 6  | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6  | 4  |    |    |    | ⊖  |    |    |    |    |    |    |    |     |  |
|    | 3  | 深度学习框架应用开发       | 64             | 6  | 6  | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6  | 4  |    |    |    | ⊖  |    |    |    |    |    |    |    |     |  |
|    | 4  | 图像处理技术/计算机视觉应用技术 | 64             | 6  | 6  | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6  | 4  |    |    |    | ⊖  |    |    |    |    |    |    |    | 2选1 |  |
|    |    |                  | 语音识别技术/自然语言处理技 |    |    |   |   |   |   |   |   |   |    |    |    |    |    | ⊖  |    |    |    |    |    |    |    | 2选1 |  |
|    |    | 28               | 28             | 28 |    |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |     |  |
|    |    |                  |                |    |    |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |     |  |
|    |    |                  |                |    |    |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |     |  |
|    |    |                  |                |    |    |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |     |  |
|    |    | 16               | 28             | 28 | 28 |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |     |  |
|    |    |                  |                |    |    |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |     |  |
|    |    |                  |                |    |    |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |     |  |
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方案实施计划的原则意见》（湘商职院发〔2019〕67号）参照

备注：①各专业公共基础课程（含必修、限选）开课学期不同，请教研室根据《关于制订2020级专业人才培养本表调整、设置。

②各专业公共基础限选课程，请教研室根据专业需要及附表2的选修规定进行选择。

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