

План одобрен Ученым советом вуза

Протокол № 04 от 25.11.2020

УЧЕБНЫЙ ПЛАН

по программе магистратуры



Мишин Д.В.

0 з.

09.04.01

Направление подготовки: 09.04.01 Информатика и вычислительная техника

Направленность (профиль): Информатика и вычислительная техника

Факультет: Отдел магистратуры

Квалификация: Магистр

Год начала подготовки (по учебному плану) 2020

Форма обучения: Очная

Образовательный стандарт (ФГОС) № 918 от 19.09.2017

Срок получения образования: 2г

| Код | Области профессиональной деятельности и (или) сферы профессиональной деятельности. Профессиональные стандарты |
|--------|---|
| 06 | СВЯЗЬ, ИНФОРМАЦИОННЫЕ И КОММУНИКАЦИОННЫЕ ТЕХНОЛОГИИ |
| 06.014 | МЕНЕДЖЕР ПО ИНФОРМАЦИОННЫМ ТЕХНОЛОГИЯМ |
| 06.025 | СПЕЦИАЛИСТ ПО ДИЗАЙНУ ГРАФИЧЕСКИХ И ПОЛЬЗОВАТЕЛЬСКИХ ИНТЕРФЕЙСОВ |
| 06.026 | СИСТЕМНЫЙ АДМИНИСТРАТОР ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ СИСТЕМ |
| 06.027 | СПЕЦИАЛИСТ ПО АДМИНИСТРИРОВАНИЮ СЕТЕВЫХ УСТРОЙСТВ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ СИСТЕМ |

| + | Типы задач профессиональной деятельности |
|---|--|
| + | научно-исследовательский |
| + | производственно-технологический |

СОГЛАСОВАНО

Проректор по УР

/ Салмин А.А./

Начальник УОУП

/ Буранова М.А./

Начальник ОМ

/ Поздняк И.С./

Руководитель ОПОП

/ Бахарева Н.Ф./

| Считать в плане | Индекс | Наименование | Форма контроля | | з.е. | | Итого акад. часов | | | | | | | | | | Курс 1 | | | | | | | | | | Курс 2 | | | | | | | | | | Закрепленная кафедра | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------|--|----------------|-------|-------------|----|-------------------|------|--------------|------------|----------|--------------|------|-----------|------------|--------|--------|-----|-----|-----|-----------|------|-----|-----|----|--------|-----------|------|-----|-----|--------|-----|-----------|------|-----|-----|----------------------|--|--|--|--|--|------|------|-----|------|-----|----|----|----|----|----|-----|----|----|----|----|----|-----|----|----|----|----|----|-----|----|---|----|----|----|-----|----|--|--|--|--|--|--|--|----|----|----|------|------|------|------|------|----|----|----|----|----|-----|-----|----|----|----|----|-----|-----|----|----|-----|----|-----|-----|----|----|----|----|-----|----|--|--|--|--|--|--|--|--|---|---|--|-----|-----|----|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | Экзам | Зачет | Зачет с оц. | КР | Экспертное | Факт | Часов в з.е. | Экспертное | По плану | Контакт часы | СР | Конт роль | Интер часы | Сем. 1 | | | | | Сем. 2 | | | | | Сем. 3 | | | | | Сем. 4 | | | | | Код | Наименование | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | з.е. | Лек | Лаб | Пр | СР | Конт роль | з.е. | Лек | Лаб | Пр | СР | Конт роль | з.е. | Лек | Лаб | Пр | СР | Конт роль | з.е. | Лек | | | Лаб | Пр | СР | Конт роль | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Блок 1. Дисциплины (модули) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Обязательная часть | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.01 | Логика и методология науки | 1 | | | | 4 | 4 | 36 | 144 | 144 | 34 | 74 | 36 | | 4 | 12 | | 22 | 74 | 36 | | | | | | | | | | | | | | | | | 18 | Философии | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.02 | Иностранный язык в профессиональной деятельности | 2 | | | | 4 | 4 | 36 | 144 | 144 | 26 | 91 | 27 | 4 | | | | | | | | | | | 4 | 2 | | 24 | 91 | 27 | | | | | | 5 | Иностранных языков | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.03 | Криптографические методы защиты информации | 2 | | | | 4 | 4 | 36 | 144 | 144 | 26 | 91 | 27 | 4 | | | | | | | | | | | 4 | 8 | 8 | 10 | 91 | 27 | | | | | | 15 | Теоретических основ радиотехники и связи | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.04 | Современные численные методы и пакеты прикладных программ | 2 | | | | 4 | 4 | 36 | 144 | 144 | 38 | 79 | 27 | | | | | | | | | | | | 4 | 16 | 22 | | 79 | 27 | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.05 | Теория параллельных вычислений и распределенные системы | 1 | | | | 4 | 4 | 36 | 144 | 144 | 38 | 79 | 27 | 4 | 10 | 28 | | | 79 | 27 | | | | | | | | | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.06 | Управление проектами | | 1 | | | 3 | 3 | 36 | 108 | 108 | 26 | 82 | | 3 | 4 | | 22 | 82 | | | | | | | | | | | | | | | | | | 19 | Цифровой экономики | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.07 | Конструирование компиляторов | 4 | | | | 6 | 6 | 36 | 216 | 216 | 38 | 142 | 36 | | | | | | | | | | | | | | | | | | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.08 | Проектирование операционных систем | 1 | | | | 5 | 5 | 36 | 180 | 180 | 50 | 103 | 27 | 5 | 16 | 18 | 16 | 103 | 27 | | | | | | | | | | | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.09 | Методы и средства проектирования программного обеспечения | 3 | | | | 7 | 7 | 36 | 252 | 252 | 48 | 177 | 27 | | | | | | | | | | | | 7 | 12 | 22 | 14 | 177 | 27 | | | | | | | 6 | Информационных систем и технологий | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.10 | Анализ данных и машинное обучение | 3 | | | | 5 | 5 | 36 | 180 | 180 | 40 | 113 | 27 | 12 | | | | | | | | | | | 5 | 12 | 28 | | 113 | 27 | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.0.11 | Методы оптимизации | | 2 | | | 3 | 3 | 36 | 108 | 108 | 26 | 82 | | | | | | | | | | | | | 3 | 10 | 16 | | 82 | | | | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>49</td><td>49</td><td></td><td>1764</td><td>1764</td><td>390</td><td>1113</td><td>261</td><td>34</td><td>16</td><td>42</td><td>46</td><td>60</td><td>338</td><td>90</td><td>15</td><td>36</td><td>46</td><td>34</td><td>343</td><td>81</td><td>12</td><td>24</td><td>50</td><td>14</td><td>290</td><td>54</td><td>6</td><td>12</td><td>12</td><td>14</td><td>142</td><td>36</td></tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 | 49 | | 1764 | 1764 | 390 | 1113 | 261 | 34 | 16 | 42 | 46 | 60 | 338 | 90 | 15 | 36 | 46 | 34 | 343 | 81 | 12 | 24 | 50 | 14 | 290 | 54 | 6 | 12 | 12 | 14 | 142 | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 49 | 49 | | 1764 | 1764 | 390 | 1113 | 261 | 34 | 16 | 42 | 46 | 60 | 338 | 90 | 15 | 36 | 46 | 34 | 343 | 81 | 12 | 24 | 50 | 14 | 290 | 54 | 6 | 12 | 12 | 14 | 142 | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Часть, формируемая участниками образовательных отношений | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.В.01 | Введение в программно-конфигурируемые сети | | 2 | | | 3 | 3 | 36 | 108 | 108 | 26 | 82 | | | | | | | | | | | | | 3 | 10 | 8 | 8 | 82 | | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.В.02 | Безопасность вычислительных систем и сетей | 3 | | | 3 | 7 | 7 | 36 | 252 | 252 | 50 | 166 | 36 | | | | | | | | | | | | 7 | 12 | 20 | 18 | 166 | 36 | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.В.03 | Протоколы вычислительных сетей | 3 | | | 5 | 5 | 36 | 180 | 180 | 48 | 96 | 36 | | | | | | | | | | | | | 5 | 16 | 32 | | 96 | 36 | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.В.04 | Основы проектирования и моделирования вычислительных сетей | 2 | | | 2 | 5 | 5 | 36 | 180 | 180 | 48 | 105 | 27 | | | | | | | | | | | | 5 | 14 | 18 | 16 | 105 | 27 | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.В.ДВ.01 | Дисциплины по выбору Б1.В.ДВ.1 | 4 | | | 5 | 5 | | 180 | 180 | 38 | 106 | 36 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.В.ДВ.01.01 | Алгоритмы сканирования данных | 4 | | | 5 | 5 | 36 | 180 | 180 | 38 | 106 | 36 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | Б1.В.ДВ.01.02 | Структуры данных | 4 | | | 5 | 5 | 36 | 180 | 180 | 38 | 106 | 36 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.В.ДВ.02 | Дисциплины по выбору Б1.В.ДВ.2 | 1 | | | 1 | 6 | 6 | | 216 | 216 | 40 | 140 | 36 | 8 | 6 | 10 | 18 | 12 | 140 | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б1.В.ДВ.02.01 | Надежность и безопасность автоматизированных систем обработки информации | 1 | | | 1 | 6 | 6 | 36 | 216 | 216 | 40 | 140 | 36 | 8 | 6 | 10 | 18 | 12 | 140 | 36 | | | | | | | | | | | | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | Б1.В.ДВ.02.02 | Конструирование программного обеспечения | 1 | | | 1 | 6 | 6 | 36 | 216 | 216 | 40 | 140 | 36 | 8 | 6 | 10 | 18 | 12 | 140 | 36 | | | | | | | | | | | | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>31</td><td>31</td><td></td><td>1116</td><td>1116</td><td>250</td><td>695</td><td>171</td><td>20</td><td>6</td><td>10</td><td>18</td><td>12</td><td>140</td><td>36</td><td>8</td><td>24</td><td>26</td><td>24</td><td>187</td><td>27</td><td>12</td><td>28</td><td>52</td><td>18</td><td>262</td><td>72</td><td>5</td><td>12</td><td>18</td><td>8</td><td>106</td><td>36</td></tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>80</td><td>80</td><td></td><td>2880</td><td>2880</td><td>640</td><td>1808</td><td>432</td><td>54</td><td>22</td><td>52</td><td>64</td><td>72</td><td>478</td><td>126</td><td>23</td><td>60</td><td>72</td><td>58</td><td>530</td><td>108</td><td>24</td><td>52</td><td>102</td><td>32</td><td>552</td><td>126</td><td>11</td><td>24</td><td>30</td><td>22</td><td>248</td><td>72</td></tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 31 | 31 | | 1116 | 1116 | 250 | 695 | 171 | 20 | 6 | 10 | 18 | 12 | 140 | 36 | 8 | 24 | 26 | 24 | 187 | 27 | 12 | 28 | 52 | 18 | 262 | 72 | 5 | 12 | 18 | 8 | 106 | 36 | | | | | | | | 80 | 80 | | 2880 | 2880 | 640 | 1808 | 432 | 54 | 22 | 52 | 64 | 72 | 478 | 126 | 23 | 60 | 72 | 58 | 530 | 108 | 24 | 52 | 102 | 32 | 552 | 126 | 11 | 24 | 30 | 22 | 248 | 72 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 31 | 31 | | 1116 | 1116 | 250 | 695 | 171 | 20 | 6 | 10 | 18 | 12 | 140 | 36 | 8 | 24 | 26 | 24 | 187 | 27 | 12 | 28 | 52 | 18 | 262 | 72 | 5 | 12 | 18 | 8 | 106 | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 80 | 80 | | 2880 | 2880 | 640 | 1808 | 432 | 54 | 22 | 52 | 64 | 72 | 478 | 126 | 23 | 60 | 72 | 58 | 530 | 108 | 24 | 52 | 102 | 32 | 552 | 126 | 11 | 24 | 30 | 22 | 248 | 72 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Блок 2. Практика | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Обязательная часть | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б2.0.01(У) | Ознакомительная практика | | | 1 | | 3 | 3 | 36 | 108 | 108 | | 108 | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б2.0.02(П) | Научно-исследовательская работа | 14 | | 23 | | 13 | 13 | 36 | 468 | 468 | | 468 | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>16</td><td>16</td><td></td><td>576</td><td>576</td><td></td><td>576</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 | 16 | | 576 | 576 | | 576 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 16 | 16 | | 576 | 576 | | 576 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Часть, формируемая участниками образовательных отношений | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б2.В.01(П) | Проектирование вычислительных сетей | | | 3 | | 3 | 3 | 36 | 108 | 108 | | 108 | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б2.В.02(П) | Технологическая (проектно-технологическая) практика | 2 | | | 6 | 6 | 36 | 216 | 216 | | 216 | | | | | | | | | | | | | | 6 | | | | | | | | | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б2.В.03(П) | Преддипломная практика | 4 | | | 6 | 6 | 36 | 216 | 216 | | 216 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | Информатики и вычислительной техники | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>15</td><td>15</td><td></td><td>540</td><td>540</td><td></td><td>540</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>31</td><td>31</td><td></td><td>1116</td><td>1116</td><td></td><td>1116</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 15 | | 540 | 540 | | 540 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 31 | 31 | | 1116 | 1116 | | 1116 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 15 | 15 | | 540 | 540 | | 540 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 31 | 31 | | 1116 | 1116 | | 1116 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Блок 3. Государственная итоговая аттестация | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | Б3.01(Д) | Выполнение и защита выпускной квалификационной работы | | | | 9 | 9 | 36 | 324 | 324 | | 324 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>9</td><td>9</td><td></td><td>324</td><td>324</td><td></td><td>324</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>9</td><td>9</td><td></td><td>324</td><td>324</td><td></td><td>324</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>9</td><td>9</td><td></td><td>324</td><td>324</td><td></td><td>324</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | 9 | | 324 | 324 | | 324 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | 9 | | 324 | 324 | | 324 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | 9 | | 324 | 324 | | 324 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 9 | 9 | | 324 | 324 | | 324 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 9 | 9 | | 324 | 324 | | 324 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 9 | 9 | | 324 | 324 | | 324 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ФТД. Факультативы | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | ФТД.01 | Геоинформационные системы | | 2 | | | 3 | 3 | 36 | 108 | 108 | 26 | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | Программного обеспечения и управления в технических системах | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>3</td><td></td><td>108</td><td>108</td><td>26</td><td>82</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>3</td><td></td><td>108</td><td>108</td><td>26</td><td>82</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>3</td><td></td><td>108</td><td>108</td><td>26</td><td>82</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | | 108 | 108 | 26 | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | | 108 | 108 | 26 | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | | 108 | 108 | 26 | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 3 | 3 | | 108 | 108 | 26 | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 3 | 3 | | 108 | 108 | 26 | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 3 | 3 | | 108 | 108 | 26 | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |