

```

<!-- Jon Raymond Melchizedek Day 955309683 -->

<!-- There can be mutiple cis courses -->
<!ELEMENT cis (course)+>

    <!-- Each course must have an id, dept, num, title, credits, teacher and classroom -->
    <!ELEMENT course (course_id, dept, course_num, title, credits, teacher, classroom)>

        <!-- Each course has a teacher assigned to teach it and they can only teach 1 class --
        >
        <!ATTLIST course teach_id ID #REQUIRED>
        <!ELEMENT course_id (#PCDATA)>
        <!ELEMENT dept (#PCDATA)>
        <!ELEMENT course_num (#PCDATA)>
        <!ELEMENT title (#PCDATA)>
        <!ELEMENT credits (#PCDATA)>

        <!-- Each teach must have first_name & last_name, office & room are optional
        and must teach a course -->
        <!ELEMENT teacher (first_name, last_name, office_building?, teach_roomnum?,
teach_course)>
            <!ELEMENT first_name (#PCDATA)>
            <!ELEMENT last_name (#PCDATA)>
            <!ELEMENT office_building (#PCDATA)>
            <!ELEMENT teach_roomnum (#PCDATA)>
            <!ELEMENT teach_course (#PCDATA)>

        <!-- Either the class is 2174 and meets in a classroom or it is arranged
        and can list the class as 1 or as a group or not list it at all -->
        <!ELEMENT classroom (building, class_roomnum, capacity, class_course)>
            <!ATTLIST classroom teacher IDREFS #IMPLIED>
            <!ELEMENT building (#PCDATA)>
            <!ELEMENT class_roomnum (#PCDATA)>
            <!ELEMENT capacity (#PCDATA)>
            <!ELEMENT class_course (#PCDATA)*>

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<!-- Jon Raymond Melchizedek Day 955309683 -->
<!DOCTYPE cis SYSTEM "hw4.dtd">
<cis>
    <course teach_id="Janet_Griffin">
        <course_id>2168</course_id>
        <dept>CIS</dept>
        <course_num>102</course_num>
        <title>Intermediate Business Computing</title>
        <credits>5</credits>

```

```
<teacher>
  <first_name>Janet</first_name>
  <last_name>Griffin</last_name>
  <teach_course>2168</teach_course>
</teacher>
<classroom teacher="Julie_Jackson Janet_Griffin Steve_Higdon">
  <building>Arr</building>
  <class_roomnum>Arr</class_roomnum>
  <capacity>35</capacity>
  <class_course></class_course>
</classroom>
</course>
<course teach_id="Paul_Hougardy">
  <course_id>2174</course_id>
  <dept>CIS</dept>
  <course_num>114</course_num>
  <title>Math and Problem Solving</title>
  <credits>5</credits>
  <teacher>
    <first_name>Paul</first_name>
    <last_name>Hougardy</last_name>
    <teach_course>2174</teach_course>
  </teacher>
  <classroom teacher="Paul_Hougardy">
    <building>Mlt</building>
    <class_roomnum>215</class_roomnum>
    <capacity>30</capacity>
    <class_course>2174</class_course>
  </classroom>
</course>
<course teach_id="Julie_Jackson">
  <course_id>2180</course_id>
  <dept>CIS</dept>
  <course_num>116</course_num>
  <title>IT Prior Learning Assessment</title>
  <credits>5</credits>
  <teacher>
    <first_name>Julie</first_name>
    <last_name>Jackson</last_name>
    <office_building>Ald</office_building>
    <teach_roomnum>214</teach_roomnum>
    <teach_course>2180</teach_course>
  </teacher>
  <classroom teacher="Julie_Jackson Janet_Griffin Steve_Higdon">
    <building>Arr</building>
    <class_roomnum>Arr</class_roomnum>
```

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        <capacity>35</capacity>
        <class_course></class_course>
    </classroom>
</course>
<course teach_id="Steve_Higdon">
    <course_id>2186</course_id>
    <dept>CIS</dept>
    <course_num>125</course_num>
    <title>Network Workstation</title>
    <credits>5</credits>
    <teacher>
        <first_name>Steve</first_name>
        <last_name>Higdon</last_name>
        <office_building>Ald</office_building>
        <teach_roomnum>225</teach_roomnum>
        <teach_course>2186</teach_course>
    </teacher>
    <classroom teacher="Julie_Jackson Janet_Griffin Steve_Higdon">
        <building>Arr</building>
        <class_roomnum>Arr</class_roomnum>
        <capacity>35</capacity>
        <class_course></class_course>
    </classroom>
</course>
</cis>

```

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
```

```
<!-- Jon Raymond Melchizedek Day 955309683 -->
```

```
<!DOCTYPE cis [
```

```
<!-- There can be mutiple cis courses -->
```

```
<!ELEMENT cis (course)+>
```

```
<!-- Each course must have an id, dept, num, title, credits, teacher and classroom -->
```

```
<!ELEMENT course (course_id, dept, course_num, title, credits, teacher, classroom)>
```

```
<!-- Each course has a teacher assigned to teach it and they can only teach 1 class -->
```

```
<!ATTLIST course teach_id ID #REQUIRED>
```

```
<!ELEMENT course_id (#PCDATA)>
```

```
<!ELEMENT dept (#PCDATA)>
```

```
<!ELEMENT course_num (#PCDATA)>
```

```
<!ELEMENT title (#PCDATA)>
```

```
<!ELEMENT credits (#PCDATA)>
```

```
<!-- Each teach must have first_name & last_name, office & room are optional
and must teach a course -->
```

```
<!ELEMENT teacher (first_name, last_name, office_building?, teach_roomnum?,
teach_course)>
  <!ELEMENT first_name (#PCDATA)>
  <!ELEMENT last_name (#PCDATA)>
  <!ELEMENT office_building (#PCDATA)>
  <!ELEMENT teach_roomnum (#PCDATA)>
  <!ELEMENT teach_course (#PCDATA)>
```

```
<!-- Either the class is 2174 and meets in a classroom or it is arranged
and can list the class as 1 or as a group or not list it at all -->
<!ELEMENT classroom (building, class_roomnum, capacity, class_course)>
  <!ATTLIST classroom teacher IDREFS #IMPLIED>
  <!ELEMENT building (#PCDATA)>
  <!ELEMENT class_roomnum (#PCDATA)>
  <!ELEMENT capacity (#PCDATA)>
  <!ELEMENT class_course (#PCDATA)*>
```

```
]>
<cis>
  <course teach_id="Janet_Griffin">
    <course_id>2168</course_id>
    <dept>CIS</dept>
    <course_num>102</course_num>
    <title>Intermediate Business Computing</title>
    <credits>5</credits>
    <teacher>
      <first_name>Janet</first_name>
      <last_name>Griffin</last_name>
      <teach_course>2168</teach_course>
    </teacher>
    <classroom teacher="Julie_Jackson Janet_Griffin Steve_Higdon">
      <building>Arr</building>
      <class_roomnum>Arr</class_roomnum>
      <capacity>35</capacity>
      <class_course></class_course>
    </classroom>
  </course>
  <course teach_id="Paul_Hougardy">
    <course_id>2174</course_id>
    <dept>CIS</dept>
    <course_num>114</course_num>
    <title>Math and Problem Solving</title>
    <credits>5</credits>
    <teacher>
      <first_name>Paul</first_name>
      <last_name>Hougardy</last_name>
      <teach_course>2174</teach_course>
```

```
</teacher>
<classroom teacher="Paul_Hougardy">
  <building>Mlt</building>
  <class_roomnum>215</class_roomnum>
  <capacity>30</capacity>
  <class_course>2174</class_course>
</classroom>
</course>
<course teach_id="Julie_Jackson">
  <course_id>2180</course_id>
  <dept>CIS</dept>
  <course_num>116</course_num>
  <title>IT Prior Learning Assessment</title>
  <credits>5</credits>
  <teacher>
    <first_name>Julie</first_name>
    <last_name>Jackson</last_name>
    <office_building>Ald</office_building>
    <teach_roomnum>214</teach_roomnum>
    <teach_course>2180</teach_course>
  </teacher>
  <classroom teacher="Julie_Jackson Janet_Griffin Steve_Higdon">
    <building>Arr</building>
    <class_roomnum>Arr</class_roomnum>
    <capacity>35</capacity>
    <class_course></class_course>
  </classroom>
</course>
<course teach_id="Steve_Higdon">
  <course_id>2186</course_id>
  <dept>CIS</dept>
  <course_num>125</course_num>
  <title>Network Workstation</title>
  <credits>5</credits>
  <teacher>
    <first_name>Steve</first_name>
    <last_name>Higdon</last_name>
    <office_building>Ald</office_building>
    <teach_roomnum>225</teach_roomnum>
    <teach_course>2186</teach_course>
  </teacher>
  <classroom teacher="Julie_Jackson Janet_Griffin Steve_Higdon">
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    <capacity>35</capacity>
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  </classroom>
</course>
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</classroom>  
</course>  
</cis>
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